

# CURRICULUM VITAE

Raymond Allen Cloyd

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Kansas State University  
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**Date of Appointment at Kansas State University:** August 1, 2006.

**Appointment Responsibilities:** 70% Extension and 30% Research.

**Title:** Professor and Extension Specialist in Horticultural Entomology/Plant Protection.

## BACKGROUND

### 1. Education

Doctor of Philosophy Degree (Ph.D) in Entomology; Purdue University, West Lafayette, IN. March 1999.  
Dissertation: Effects of plant architecture on the attack rate of *Leptomastix dactylopii* (Howard) (Hymenoptera: Encyrtidae), a parasitoid of the citrus mealybug, *Planococcus citri* (Risso) (Homoptera: Pseudococcidae).

Master of Science Degree in Entomology; Purdue University, West Lafayette, IN. June 1995. Thesis: Evaluation of trichome density levels and bean leaf beetle, *Cerotoma trifurcata* (Forster), feeding preference on soybean pods.

Bachelor of Science Degree in Ornamental Horticulture; California Polytechnic State University—San Luis Obispo, CA. June 1990. Senior Project: Fungicide efficacy on *Pythium ultimum* of bedding plant seedlings. Minor Degree in Plant Protection/Pest Management.

Associate of Science Degree in Ornamental Horticulture; Monterey Peninsula College, Monterey, CA. June 1985.

### 2. Professional Employment

Owner/Manager: Ray Cloyd Landscape Gardeners and Horticultural Consultants. Monterey, CA. 1982-1992. Responsibilities: landscape maintenance, installation, designing, and horticultural consulting for commercial and residential clients.

Landscape Maintenance Supervisor: Sonora Hills Retirement Community. Sonora, CA. 1990-1992. Responsibilities: landscape and irrigation maintenance; insect, disease, and weed management; supervise and designate work-crew responsibilities.

Nursery Technician: Millards Garden Center. Sonora, CA. 1990-1991. Responsibilities: customer sales, greenhouse repair, plant material inventory, maintenance of nursery stock plants, and consulting for customers.

Greenhouse Manager/Pesticide Applicator: California Polytechnic State University—San Luis Obispo, Department of Ornamental Horticulture. San Luis Obispo, CA. 1988-1990. Responsibilities: coordinate operations for greenhouse facilities, designate work-crew responsibilities, and maintain greenhouse environmental control systems. Application of herbicides, insecticides, and fungicides in greenhouse, landscape, and nursery crop production systems. Implement integrated pest management strategies.

Assistant Professor/Associate Professor: Extension Specialist in Ornamental Entomology/Integrated Pest Management; University of Illinois, Department of Natural Resources and Environmental Sciences, Urbana, IL. 1999-2006. Appointment: Extension (70%) and Research (30%). Responsibilities: Extension and research associated with pest management of greenhouses, nurseries, landscapes, turfgrass, conservatories, and interiorscapes. Extension specialist in ornamental entomology for the state of Illinois. Major clientele: homeowners, master gardeners, and professional and commercial operators.

## **AWARDS AND HONORS**

### **1. Undergraduate Awards**

Outstanding Senior in Ornamental Horticulture 1990.

Outstanding Achievement in Ornamental Horticulture 1988-90.

Joseph Shinoda Memorial Scholarship 1987-89.

Presidents Honor List 1987 and 1989.

CAN (California Association of Nurserymen) Scholarship 1985, 1987-90.

Certificate of Achievement in Ornamental Horticulture 1985.

Deans Honor List 1982-90.

### **2. Graduate Awards**

Robert O. and Norma Y. Williams Pest Control Conference Award 1994, 1995, and 1997.

Bedding Plants Foundation, Inc., John Carew Memorial Scholarship 1997.

Dow AgroSciences Graduate Scholarship 1998.

### **3. Professional Awards**

University of Illinois Extension Outstanding/Innovative Program Team Award (“Insect Identification Series”) 2001.

Southern Illinois Bedding Plant School Outstanding Service Award 2003.

College of Agricultural, Consumer, and Environmental Sciences Faculty Award for Excellence in Extension 2003.

Indiana Flower Growers Association Appreciation Award 2003.

Visionary Leadership Award, Epsilon Sigma Phi Extension Fraternity 2003.

American Society of Horticultural Science, Outstanding Extension Publication Award (Outstanding Primarily Visual Award) 2003.

University of Illinois Excellence in Extension Campus Award for Less than 10 Years of Service 2004.

Entomological Society of America Outstanding Service Award, *Arthropod Management Test* Editorial Board (Chairperson and Member) 2005.

Early Career Extension Award, Epsilon Sigma Phi Extension Fraternity (Illinois Alpha Nu Chapter) 2006.

North Central Region, Epsilon Sigma Phi Early Career Extension Award 2007.

Epsilon Sigma Phi, Alpha Rho State Early Career Extension Award 2008.

Extension Length of Service Award—10 years: Epsilon Sigma Phi Alpha Rho Chapter 2009.

Kansas State Research and Extension 10 Years of Service Award; Kansas State University 2009.

Ohio Florists’ Association Bulletin Author of the Year Award, Ohio Florists’ Association 2010.

American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Dormant oils—Everything you ever wanted to know. The Nashville Rose Leaf) 2010.

American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Defusing misconceptions about thrips. The Nashville Rose Leaf) 2010.

American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: What rose growers should know about colony collapse disorder. The Nashville Rose Leaf) 2010.

Entomological Society of America North Central Branch Award of Excellence in Integrated Pest Management 2010.

- American Society for Horticultural Science Outstanding Extension Publication Award (Outstanding Leaflet Award; Resistance Management: Resistance, Mode of Action, and Pesticide Rotation) 2010.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Pesticide resistance. The Nashville Rose Leaf) 2011.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Imidacloprid (Merit®). The Nashville Rose Leaf) 2011.
- Society of American Florists Alex Laurie Award for Research and Extension 2011.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Rose rosette disease. The Nashville Rose Leaf) 2012.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: What are pesticide Metabolites? The Nashville Rose Leaf) 2012.
- American Society for Horticultural Sciences Outstanding Extension Educator Award 2012.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Japanese beetles: What can you do? The Nashville Rose Leaf) 2013.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Two spotted spider mites on roses. The Nashville Rose Leaf) 2013.
- Epsilon Sigma Phi Alpha Rho Chapter Mid-Career Extension Award 2013.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: METI Miticides: What are they? The Nashville Rose Leaf) 2014.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Rose aphid—Beware of this ‘sucker.’ The Nashville Rose Leaf) 2014.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Soaps and detergents: Should they be used on roses? The Nashville Rose Leaf) 2014.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: What is insecticide hormoligosis? The Nashville Rose Leaf) 2014.
- American Society for Horticultural Science Extension Division; Outstanding Education Materials Award (Outstanding Leaflet Award: Rose Rosette Disease) 2014.
- K-State Research and Extension 2014 Team Award; Extension Integrated Pest Management 2014.
- Alpha Rho Chapter, Epsilon Sigma Phi: National Honor Extension Fraternity; Tenure Award (15 years: Cooperative Extension Service, Kansas State University, Manhattan, KS) 2014.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: Translaminar pesticides: Factors that may impact effectiveness. The Nashville Rose Leaf) 2015.
- American Rose Society Award of Merit Bulletin/Newsletter Contest (Article: What are adjuvants? The Nashville Rose Leaf) 2015.
- American Society for Horticultural Science Extension Division; Outstanding Education Materials Award (Outstanding Leaflet Award: Spotted Wing Drosophila) 2015.
- National Association of County Agricultural Agents (NACAA) Communications Contest [Publication: ‘Commercially available biological control agents for common greenhouse insect pests.’ Authors: Heidi Wollaeger and David Smitley (Michigan State University), and Raymond Cloyd (Kansas State University)] 2016.
- Professional Performance Award (Department of Entomology; College of Agriculture, Kansas State University, Manhattan, KS) 2017.
- State Association Leader Award for Kansas (Western Nursery and Landscape Association; Kansas City, MO) 2017.
- American Society for Horticultural Science Extension Division; Outstanding Education Materials Award (Outstanding Leaflet Award: Squash Bug) 2017.
- Distinguished Achievement Award in Horticultural Entomology (73<sup>rd</sup> Annual Meeting of the North Central Branch of the Entomological Society of America; Madison, WI) 2018.

American Society for Horticultural Science Extension Division; Outstanding Education Materials Award (Outstanding Leaflet Award: Pesticides and Bees) 2019.  
 Extension Length of Service Award: 20 Years of Service (Kansas State University Research and Extension: Kansas State University; Manhattan, KS) 2019.

## **EXTENSION**

### **1. Publications: Extension-Related**

- Cloyd, R. A. 2019. Bagworm: insect pest of trees and shrubs. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Kansas State University; Manhattan, KS. MF3474. 4 pgs.
- Cloyd, R. A. 2019. Scale insect pests. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Kansas State University; Manhattan, KS. MF3457. 8 pgs.
- Cloyd, R. A. 2019. Oak leaf itch mite. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Kansas State University; Manhattan, KS. MF2806. 2 pgs.
- Midwest vegetable production guide for commercial growers. 2019. Kansas State University Research and Extension. Collaboration with Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, and Ohio. Entomology: Raymond Cloyd (contributor). 236 pgs (revised annually).
- Cloyd, R. A. 2019. Grub management in turfgrass using insecticides. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Kansas State University; Manhattan, KS. MF3439. 4 pgs.
- Cloyd, R. A. 2019. Aphid management in greenhouse production systems. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Kansas State University; Manhattan, KS. MF3442. 8 pgs.
- Hale, F. A., D. D. Hensley, and R. A. Cloyd. 2019. Using pesticides in greenhouses. University of Tennessee Extension, Institute of Agriculture. The University of Tennessee PB 1595. Knoxville, TN. 20 pgs.
- Midwest fruit pest management guide. 2019-2020. Kansas State University Research and Extension. Collaboration with Arkansas, Illinois, Indiana, Iowa, Kentucky, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, West Virginia, and Wisconsin. Kansas State University Entomology: Raymond Cloyd. 166 pgs (revised annually).
- Hale, F., and R. A. Cloyd. 2018. Insect and mite pest management in greenhouses. The University of Tennessee, Institute of Agriculture. The University of Tennessee Extension PB 1594. Knoxville, TN. 29 pgs.
- Whitford, F., M. Olds, R. Cloyd, B. Young, D. Linscott, J. Deveau, J. Reiss, A. Patton, B. Johnson, T. Overley, and K. L. Smith. September 2018. Avoid tank mixing errors. Purdue University Extension: Purdue University; West Lafayette, IN. 42 pgs.
- Midwest vegetable production guide for commercial growers. 2018. Kansas State University Research and Extension. Collaboration with Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, and Ohio. Entomology: Raymond Cloyd (contributing Editor). 236 pgs (revised annually).
- Cloyd, R. A. September 2018. Yellowstriped armyworm on tomatoes and peppers. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3250. Kansas State University; Manhattan, KS. 2 pgs.
- Cloyd, R. A., and N. J. Herrick. August 2018. Redheaded flea beetle. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3225. Kansas State University; Manhattan, KS. 2 pgs.
- Cloyd, R. July 2018. Pesticides and bees. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3428. Kansas State University; Manhattan, KS. 8 pgs.

- Rebek, E. J., and R. A. Cloyd. 2018. Management of insect and mite pests of greenhouse floral crops. Oklahoma Cooperative Extension Service. Current Report (CR-6718). Division of Agricultural Sciences and Natural Resources, Oklahoma State University; Stillwater, OK. 12 pgs. (revised annually).
- Midwest vegetable production guide for commercial growers. 2017. Kansas State University Research and Extension. Collaboration with Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, and Ohio. Entomology: Raymond Cloyd (contributing Editor). 230 pgs (revised annually).
- Midwest fruit pest management guide. 2017. Kansas State University Research and Extension. Collaboration with Arkansas, Illinois, Indiana, Iowa, Kentucky, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, West Virginia, and Wisconsin. Entomology: Raymond Cloyd. 179 pgs (revised annually).
- Cloyd, R. July 2017. Shore fly. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3384. Kansas State University, Manhattan, KS. 2 pgs.
- Rebek, E. J., and R. A. Cloyd. 2017. Management of insects and mites in greenhouse floral crops. Oklahoma Cooperative Extension Service. CR-6718. Division of Agricultural Sciences and Natural Resources, Oklahoma State University, Stillwater, OK. 16 pgs.
- Kennelly, M. M., R. A. Cloyd, J. O'Mara, and J. J. Griffin. January 2016. Tree and shrub problems in Kansas: diseases, insects, and environmental stresses. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3132. Kansas State University, Manhattan, KS. 72 pgs.
- Midwest vegetable production guide for commercial growers. 2016. Kansas State University Research and Extension. Collaboration with Illinois, Indiana, Iowa, Minnesota, Missouri, and Ohio. Entomology: Raymond Cloyd (contributing Editor). 212 pgs (revised annually).
- Midwest fruit pest management guide. 2016. Kansas State University Research and Extension. Collaboration with Arkansas, Illinois, Indiana, Iowa, Kentucky, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, West Virginia, and Wisconsin. Entomology: Raymond Cloyd (contributing Editor). 172 pgs (revised annually).
- Midwest small fruit and grape spray guide. 2016. Kansas State University Research and Extension. Collaboration with Arkansas, Illinois, Indiana, Iowa, Kentucky, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, West Virginia, and Wisconsin. Entomology: Raymond Cloyd. 89 pgs (revised annually).
- Midwest tree fruit spray guide. 2016. Kansas State University Agricultural Experiment Station and Cooperative Extension Service S-146. Collaboration with Arkansas, Illinois, Indiana, Iowa, Kentucky, Missouri, Ohio, and Wisconsin. Entomology: Raymond Cloyd. 72 pgs (revised annually).
- Cloyd, R. A. and J. R. Nechols. July 2016. Squash vine borer. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3309. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A., and J. R. Nechols. July 2016. Squash bug. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3308. Kansas State University, Manhattan, KS. 4 pgs.
- Cloyd, R. A. May 2016. Brownheaded ash sawfly. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3297. Kansas State University, Manhattan, KS. 2 pgs.
- McKernan, M., and R. Cloyd. May 2016. Oak vein pocket gall. Kansas State University Agricultural Experiment Station and Cooperative Extension Service; Kansas State University, Manhattan, KS. 2 pgs.
- Wollaeger, H, D. Smitley, and R. Cloyd. 2015. Commercially available biological control agents for common greenhouse insect pests. Michigan State University Extension and Kansas State University. 6 pgs.
- Cloyd, R., M. Kennelly, C. Lee, W. Upham, and J. Hoyle. 2015. Ornamental pest control (Category 3A). Kansas State University Agricultural Experiment Station and Cooperative Extension Service. S11 (April 2015). Kansas State University, Manhattan, KS. 73 pgs.
- Rebek, E. J., and R. A. Cloyd. 2015. Management of insects and mites in greenhouse floral crops. Oklahoma Cooperative Extension Service. CR-6718. Division of Agricultural Sciences and Natural Resources, Oklahoma State University, Stillwater, OK. 16 pgs.

- Cloyd, R. A. December 2015. Effect of water and spray solution pH on pesticide activity. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3272. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A. May 2015. Common asparagus beetle. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3231. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A., and C. Copeland. April 2014. Spotted wing drosophila. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3158. Kansas State University, Manhattan, KS. 4 pgs.
- Cloyd, R. A. June 2014. Harlequin bug. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3135. Kansas State University, Manhattan, KS. 4 pgs.
- Kennelly, M. M., R. A. Cloyd, J. O'Mara, and J. J. Griffin. February 2014. Tree and shrub problems in Kansas: diseases, insects, and environmental stresses. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3132. Kansas State University, Manhattan, KS. 66 pgs.
- Miller, F. L., B. Bauernfeind, R. A. Cloyd, S. Keeley, M. Kennelly, C. Lee, and W. Upham. September 2013. Turf pest control. Kansas State University Agricultural Experiment Station and Cooperative Extension Service Category 3B. S-20. Kansas State University, Manhattan, KS. 64 pgs.
- Cloyd, R. A. April 2013. Insect growth regulators for use in greenhouses. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3094. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A. April 2013. Rose rosette disease. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2974. Kansas State University, Manhattan, KS (revised from March 2011). 2 pgs.
- Hale, F. A., and R. A. Cloyd. 2013. Insect and mite management in greenhouses. The University of Tennessee, Institute of Agriculture. The University of Tennessee Extension PB 1594. Knoxville, TN (revised since 2001). 21 pgs.
- Cloyd, R. A. 2012. Pesticide metabolites. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3070. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A. 2012. Pesticide mixtures: understanding their use in horticultural production systems. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3045. Kansas State University, Manhattan, KS. 4 pgs.
- Cloyd, R. A. 2012. Management of insects and mites in greenhouse floral crops. Rebeck, E. J. [ed.]. Oklahoma Cooperative Extension Service. CR-6718. Division of Agricultural Sciences and Natural Resources, Oklahoma State University, Stillwater, OK. 8 pgs.
- Cloyd, R., and M. Kennelly. 2011. Interior landscape pest management. Kansas State University Agricultural Experiment Station and Cooperative Extension Service Category 3C. S-33. Kansas State University, Manhattan, KS. 35 pgs.
- Bauernfeind, B., R. Cloyd, E. DeWolf, W. Fick, D. Jardine, M. Kennelly, D. Peterson, J. Whitworth, and R. E. Wolf. 2011. Agricultural plant pest control. Kansas State University Agricultural Experiment Station and Cooperative Extension Service Category 1A. S-19. Kansas State University, Manhattan, KS. 126 pgs.
- Cloyd, R. A. 2011. Mealybug: management in greenhouses and nurseries. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-3001. Kansas State University, Manhattan, KS. 4 pgs.
- Cloyd, R. A. 2011. Twospotted spider mite: management in greenhouses and nurseries. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2997. Kansas State University, Manhattan, KS. 8 pgs.
- Cloyd, R. A. 2011. Rose rosette disease. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2974. Kansas State University, Manhattan, KS. 2 pgs.

- M. Kushad, E. Wahle, M. Ogutu, R. Weinzierl, M. Babadoost, J. Masiunas, P. Domoto, G. Nonnecke, D. Lewis, M. Gleason, T. Carey, R. Cloyd, M. Kennelly, J. Strang, T. Jones, R. Bessin, J. Hartman, M. Warmund, B. Barrett, K. Striegler, M. Kaps, L. Kovacs, M. Pszolkowski, P. Read, F. Baxendale, J. Chaky, L. Sandell, I. Dami, S. Wright, D. Doohan, C. Welty, R. Williams, M. Ellis, E. Stafne, P. Mulder, D. Smith, B. Bordelon, R. Foster, J. Beckerman, S. Weller, J. Jett, J. Baniecki, R. Harbut, B. Smith, P. McManus, D. Mahr, and J. Colquhoun. 2010. Midwest small fruit and grape spray guide. Bordelon, B., M. Ellis, and C. Welty [eds.]. Kansas State University, Agricultural Experiment Station and Cooperative Extension Service. S-145. 74 pgs.
- Cloyd, R. A. 2010. Broad mite and cyclamen mite: management in greenhouses and nurseries. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2938. Kansas State University, Manhattan, KS. 4 pgs.
- Cloyd, R. A. 2010. Bulb mites: management in greenhouses and nurseries. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2939. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A. 2010. Fungus gnats: management in greenhouses and nurseries. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2937. Kansas State University, Manhattan, KS. 4 pgs.
- Davis, H., J. R. Whitworth, R. A. Cloyd, and C. Otte. 2010. Bed bugs. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2926. Kansas State University, Manhattan, KS. 4 pgs.
- Marr, C. W., T. Carey, R. Cloyd, and M. Kennelly. 2010. Kansas Garden Guide. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. S-51 (Rev.). Kansas State University, Manhattan, KS. 76 pgs.
- Cloyd, R. A. July 2010. Management of insects and mites in greenhouse floral crops. Rebek E. J., and T. A. Royer [eds.]. Oklahoma Cooperative Extension Service. CR-6718. Division of Agricultural Sciences and Natural Resources, Oklahoma State University, Stillwater, OK. 8 pgs.
- Cloyd, R. A. 2010. Western flower thrips: management on greenhouse-grown crops. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2922. Kansas State University, Manhattan, KS. 8 pgs.
- Cloyd, R. A., and R. S. Cowles. 2009. Resistance management: resistance, mode of action, and pesticide rotation. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2905. Kansas State University, Manhattan, KS. 8 pgs.
- Quinn, J., D. Trinklein, and R. A. Cloyd. 2009. Integrated pest management in greenhouses and nurseries. University of Missouri Extension. IPM 1026. United States Department of Agriculture; Cooperative Extension, University of Missouri, Columbia, MO. 8 pgs.
- Cloyd, R. A. 2009. Mulches and living organisms. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2900. Kansas State University, Manhattan, KS. 2 pgs.
- Cloyd, R. A., J. Quinn, and D. Trinklein. 2009. Integrated pest management in greenhouses and herbaceous nurseries. Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF-2892. Kansas State University, Manhattan, KS. 7 pgs.
- Cranshaw, W. S., and R. A. Cloyd. 2009. Fungus gnats as houseplant and indoor pests. Insect Series Home & Garden, no. 5.5584. Colorado State University, Fort Collins, CO. 3 pgs.
- Byrne, J., and R. A. Cloyd. 2007. A pocket guide for IPM scouting in herbaceous perennials. Michigan State University Extension Bulletin E-2981; Lansing, MI. 105 pgs.
- Cloyd, R. 2006. Greenhouse floral crops: insect and mite control suggestions, pp. 469-475. In: Oklahoma State University Extension Agents' Handbook of Insect, Plant Disease, and Weed Control E-832. Oklahoma Cooperative Extension Service, Division of Agricultural Sciences and Natural Resources, Oklahoma State University, Stillwater, OK. 537 pgs.

- Cloyd, R. A., and C. S. Sadof. 2003. Western flower thrips. Purdue Cooperative Extension Service Bulletin E-110-W. Purdue University; West Lafayette, IN. 4 pgs.
- Cloyd, R. A., and C. S. Sadof. 2003. Fungus gnats and shore flies. Purdue Cooperative Extension Service Bulletin E-111-W. Purdue University; West Lafayette, IN. 4 pgs.
- Williamson, R. C., R. A. Cloyd, and S. C. Hong. 2003. Integrated pest management in greenhouses A3744 (poster). Cooperative Extension of the University of Wisconsin—Extension, Madison, WI.
- Cloyd, R. A., C. S. Sadof, K. K. Rane, G. E. Ruhl, and E. T. Maynard. 2002. Spring greenhouse bedding plants: insect, mite, and disease management ID-218. Purdue University Cooperative Extension Service: Purdue University; West Lafayette, IN. 11 pgs.
- Hale, F. A., R. A. Cloyd, and E. E. Burgess. 2001. Using pesticides in greenhouses. The University of Tennessee Agricultural Extension Service Publication 1595. University of Tennessee; Knoxville, TN. 14 pgs.
- Paulsrud, B. E., R. A. Cloyd, J. D. Kindhart, R. Weinzierl, J. Masiunas, M. Babadoost, D. I. Edwards, and B. E. Branham. 2001. Soil fumigation. Illinois Pesticide Applicator Training Manual 39-18. College of Agricultural, Consumer and Environmental Sciences; University of Illinois Extension, Champaign-Urbana, IL. 20 pgs.
- Tips on selecting pest management strategies. Second edition. June 2001. Ohio Florists' Association Services, Inc., Columbus, OH (extensive revision bi-annually since 1999). Contributing authors: J. Bethke, M. Casey, W. E. Chaney, R. A. Cloyd, D. Colbert, T. W. Davis, B. M. Drees, S. A. Gill, D. Gilrein, A. H. Hara, T. Y. Hara, K. M. Heinz, C. Jacobsen, P. C. Krauter, R. Lindquist, D. G. Nielsen, R. D. Oetting, R. A. Redak, R. Reeser, C. S. Sadof, L. Siracusano, D. R. Smitley, S. A. Tjosvold, S. P. Thompson, and J. A. Yogi-Chun.
- Cloyd, R., P. Nixon, M. Weisbrook, B. Paulsrud, and M. Mohr. 2001. Integrated pest management and pesticide safety, pp. 139-163. In: Home, Yard, and Garden Pest Guide: University of Illinois Extension, Circular 1374. University of Illinois; Champaign-Urbana, IL. 163 pgs.
- Cloyd, R. A., and P. L. Nixon. 2000. Slugs. Entomology Fact Sheet, NHE-84. Department of Natural Resources and Environmental Sciences; University of Illinois Extension, Champaign-Urbana, IL. 2 pgs.
- Cloyd, R. A. 2000. Earwigs. Entomology Fact Sheet, NHE-142. Department of Natural Resources and Environmental Sciences; University of Illinois Extension, Champaign-Urbana, IL. 2 pgs.
- Cloyd, R. A., and P. L. Nixon. 2000. Multicolored Asian lady beetle. Entomology Fact Sheet, NHE-161. Department of Natural Resources and Environmental Sciences; University of Illinois Extension, Champaign-Urbana, IL. 2 pgs.
- Cloyd, R. A., and P. L. Nixon. 2000. Gypsy moth. Entomology Fact Sheet, NHE-153. Department of Natural Resources and Environmental Sciences; University of Illinois Extension, Champaign-Urbana, IL. 4 pgs.
- Cloyd, R. 2000. Integrated pest management, pp. H3-H8. In: Illinois Master Gardener Manual. University of Illinois Extension, Champaign-Urbana, IL.
- Gibson, J. L., B. E. Whipker, and R. Cloyd. 2000. Success with container production of twelve herb species. Horticulture Information Leaflet 509. North Carolina State University, Raleigh, NC. 8 pgs.
- Whipker, B. E., J. L. Gibson, R. A. Cloyd, C. R. Campbell, and R. Jones. 1998. Success with ornamental cabbage and kale. Horticulture Information Leaflet 507. North Carolina State University, Raleigh, NC. 9 pgs.
- Whipker, B. E. and R. A. Cloyd. 1998. Guide to successful outdoor garden mum production. Horticulture Information Leaflet 506. North Carolina State University, Raleigh, NC. 8 pgs.
- Lerner, B. R., M. N. Dana, C. Sadof, R. Cloyd, and P. Pecknold. 1998. Roses. Department of Horticulture. Purdue Coop. Ext. Serv. Bull; Purdue University, West Lafayette, IN. HO-128. 10 pgs.
- 2. Publications: Books/Book Chapters**
- Chase, A. R., M. L. Daughtrey, and R. A. Cloyd. 2018. Compendium of bedding plant diseases and pests. The American Phytopathological Society; St. Paul, MN. 170 pgs. ISBN: 978-0-89054-601-7.



- Cloyd, R. A. 2018. Effect of nutrition and water on insect and mite pests, pp. 251-260. In: *Water, Root Media, and Nutrient Management for Greenhouse Crops*; Merhaut, D. J., K. A. Williams, and S. S. Mangiafico [eds.]. University of California Agriculture and Natural Resources Publication 3551; Davis, CA. ISBN no 978-1-60107-983-1.
- Cloyd, R. A. 2018. Chapter 4: Insect management for disease control in Florists' crops, pp. 69-85. In: *Handbook of Florists' Crops Diseases Volume 1*; McGovern, R. J., and W. Elmer [eds.]. Springer International Publishing; New York, NY. ISBN no 978-3-319-39668-2.
- Cloyd, R. A. 2017. Biological control and pesticides: integration in greenhouse production systems. pp. 73-112. In: *Biological Control: Methods, Applications, and Challenges*; Davenport, L. [ed.]. Nova Science Publishers, Inc.; New York, NY. 150 pgs. ISBN no 978-1-53612-416-3
- Cloyd, R. A. 2017. Insect management for disease control in florist's crops, pp. 1-17. In: *Handbook of Florists' Crops Diseases*; McGovern, R. J., and W. Elmer [eds.]. Springer International Publishing; New York, NY. ISBN no 978-3-319-323474-9.
- Cloyd, R. A. 2016. *Greenhouse pest management*. CRC Press, Taylor & Francis Group; Boca Raton, FL. 196 pgs. ISBN no. 978-1-4822-2778-9
- Cloyd, R. A. 2015. Biological control of whiteflies, pp. 81-96. In: *Whiteflies and Aphids: Natural Occurrences, Biological Control and Plant Responses*; Reeves, D. L. [ed.]. Nova Science Publishers, Inc.; New York, NY. 102 pgs. ISBN no. 978-1-63482-507-8
- Whipker, B. E., R. Cloyd, and C. Warfield. 2012. *Troubleshooting Petunia Disorders (Second Edition)*. 68 pgs. ID 11037792 ([www.lulu.com](http://www.lulu.com))
- Cloyd, R. A. 2012. Chapter 4: Systemic insecticides, pp. 105-126. In: Daniels, J. A. [ed.]. *Advances in Environmental Research Volume 24*. Nova Science Publishers, Inc.; New York, NY. 254 pgs. ISBN no. 978-1-61942-171-4
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- Cloyd, R. December 9, 2019. Dormant oils. No. 25: 1-3.
- Cloyd, R. October 10, 2019. Green June beetle larvae. No. 23: 1-2.
- Cloyd, R. September 26, 2019. *Scolia dubia*: parasitoid of the Green June beetle. No. 22: 1-2
- Cloyd, R. September 6, 2019. Wheel bug...a cool looking bug! No. 20: 3-4.
- Cloyd, R. September 6, 2019. Euonymus scale. No. 20: 1-3.
- Cloyd, R. August 23, 2019. Twospotted spider mites. No. 18: 1-3.
- Cloyd, R. August 9, 2019. "Bugs" to be on the look-out for. No. 16: 3.
- Cloyd, R. August 9, 2019. Mimosa webworm. No. 16: 1-2.
- Cloyd, R. July 26, 2019. Green June beetle adults. No. 15: 1-2.
- Cloyd, R. July 11, 2019. Japanese beetles. No. 14: 1-4.
- Cloyd, R. June 28, 2019. Mosquitoes: how to avoid being "bitten" by this "sucking" insect. No. 12: 2-6.
- Cloyd, R. June 20, 2019. Fall webworm. No. 11: 1-2.
- Cloyd, R. June 7, 2019. Time to 'get ready' for bagworms. No. 9: 1-3.
- Cloyd, R. May 1, 2019. How to avoid getting "bored" by the ash/lilac borer. No. 4: 2-3.
- Cloyd, R. April 17, 2019. Common asparagus beetle. No. 2: 1-2.
- Cloyd, R. September 13, 2018. Goldenrod soldier beetles. No. 21: 2-3.
- Cloyd, R. September 13, 2018. *Scolia dubia*: parasitoid of green June beetle larvae. No. 21: 1-2.
- Cloyd, R. August 23, 2018. New extension publications—pesticides and bees; squash bug and squash vine borer. No. 18: 5.

- Cloyd, R. August 17, 2018. Red-shouldered bug. No. 17: 1-2.
- Cloyd, R. August 3, 2018. Cicada killers. No. 15: 1-3.
- Cloyd, R. July 19, 2018. Elm leaf beetle adults, larvae, and damage...unbelievable! No. 13: 1-3.
- Cloyd, R. July 12, 2018. Do not get 'ticked-off' after eating meat. No. 12: 4-5.
- Cloyd, R. July 12, 2018. Japanese beetles...with a vengeance! No. 12: 2-4.
- Cloyd, R. July 12, 2018. Green June beetle adults are flying around! No. 12: 1-2.
- Cloyd, R. June 15, 2018. Twospotted spider mites. No. 9: 4-6.
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- Cloyd, R. May 18, 2018. Pine tortoise scale. No. 7: 3-5.
- Cloyd, R. May 18, 2018. Bagworms: they have arrived...and not from outer space! No. 7: 1-3.
- Cloyd, R. May 11, 2018. Ash/lilac borer. No. 6: 1-3.
- Cloyd, R. October 20, 2017. Cross-striped cabbageworm. No. 28: 1-3.
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- Cloyd, R. July 6, 2017. Japanese beetles are back? No. 15: 1-5.
- Cloyd, R. June 23, 2017. Bagworms are here! No. 13: 1-4.
- Cloyd, R. May 26, 2017. Rose sawflies. No. 10: 4-6.
- Cloyd, R. May 26, 2017. European fruit lecanium scale. No. 10: 3-4.
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- Cloyd, R. May 12, 2017. European elm flea weevil. No. 8: 1-3.
- Cloyd, R. April 21, 2017. Clover mite. No. 7: 5-6.
- Cloyd, R. April 21, 2017. European pine sawfly. No. 7: 3-5.
- Cloyd, R. April 13, 2017. Ash/lilac borer: don't get "bored-down" by this caterpillar borer. No. 6: 4-6
- Cloyd, R. December 14, 2016. Dormant oils. No. 35: 1-3.
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- Cloyd, R. September 1, 2016. Mimosa webworm. No. 3-4.
- Cloyd, R. September 1, 2016. Fall webworm. No. 26: 1-3.
- Cloyd, R. August 25, 2016. Cicada killers. No. 25: 1-3.
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- Cloyd, R. July 8, 2016. Japanese beetles are back! No. 18: 2-5.
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- Cloyd, R. July 1, 2016. Twospotted spider mites: "hot and ready." No. 17: 3-4.
- Cloyd, R. July 1, 2016. Lace bugs: nothing to worry about? No. 17: 1-3.
- Cloyd, R. June 17, 2016. Bagworms are back! No. 15: 1-4.
- Cloyd, R. May 21, 2016. European fruit lecanium scale: adding a "decorative touch" to bald cypress. No. 12: 1-2.
- Cloyd, R. May 20, 2016. Spirea aphid: watch out for this "sucking" insect. No. 11: 4-5.
- Cloyd, R. May 20, 2016. Rose sawflies: out with a vengeance! No. 11: 2-4.
- Cloyd, R. May 20, 2016. Oak vein pocket gall: back with a vengeance! No. 11: 1-2.
- Cloyd, R. May 13, 2016. Mosquitoes: how to avoid getting "bitten" by this "sucking" insect. No. 10: 1-3.
- Cloyd, R. May 6, 2016. Euonymus scale. No. 9: 1-3.
- Cloyd, R. April 21, 2016. Ash/lilac borer: do not get "w-holed" down by this borer. No. 7: 1-3.
- Cloyd, R. April 14, 2016. European pine sawfly. No. 6: 1-3.
- Cloyd, R. November 13, 2015. Here comes the Asian ladybird beetle! No. 26: 1-2
- Cloyd, R. October 16, 2015. Wheel bug: Be on the look-out for this distinct "bug." No. 24: 5-7.
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- Cloyd, R. October 16, 2015. Euonymus scale: What can you do? No. 24: 2-4.
- Cloyd, R. October 16, 2015. Emerald ash borer in Kansas: Another quarantined county. No. 24: 1-2.
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- Cloyd, R. May 1, 2015. Caterpillars and sawflies. No. 4: 2-3.
- Cloyd, R. May 1, 2015. Honey bees and bumble bees: What is the difference? No. 4: 1-2.
- Cloyd, R. April 16, 2015. How to improve performance of pesticides: timing, coverage, and frequency. No. 2: 3-4.
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- Cloyd, R. July 3, 2014. Japanese beetles are here! No. 13: 2-4.
- Cloyd, R. July 3, 2014. Red milkweed beetle. No. 13: 1-2.
- Cloyd, R. July 3, 2014. Vein pocket gall. No. 13: 1.
- Cloyd, R. June 6, 2014. Now is time to “nail” those bagworms. No. 10: 2-4.
- Cloyd, R.A. May 9, 2014. Eastern tent caterpillar. No. 6: 2-3.
- Cloyd, R. A. May 9, 2014. European pine sawfly. No. 6: 1-2.
- Cloyd, R. April 25, 2014. Ash/lilac borer. No. 4: 1-2.
- Cloyd, R. September 6, 2013. Spotted wing drosophila: Another new insect pest! No. 22: 1-3.
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- Cloyd, R. August 2, 2013. Oh...no...Japanese beetles are here! No. 17: 1-2.
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- Cloyd, R. May 24, 2013. Cherry fruit fly. No. 8: 4-5.
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- Cloyd, R. May 3, 2013. Sowbugs and pillbugs. No. 5: 2-4.
- Cloyd, R. May 3, 2013. Impact of “climate change” on arthropod pests. No. 5: 4-8.
- Cloyd, R. April 22, 2013. Don’t get “bored” by the ash or lilac borer. No. 3: 1-3.
- Cloyd, R. October 22, 2012. What is that insect? It is...the red-shouldered bug. No. 28: 3-6.
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- Cloyd, R. August 29, 2012. Emerald ash borer: “Barking” at our door. No. 22: 1-4.
- Cloyd, R. July 27, 2012. What are those “huge” wasps flying around? These are cicada killers? No. 19: 1-2.
- Cloyd, R. July 13, 2012. Lace bugs: Ok...so what? No. 18: 3-4.
- Cloyd, R. July 13, 2012. Blister beetles are “irritating” insects. No. 18: 1-2.
- Cloyd, R. June 29, 2012. With the weather “heating-up” it is time for...the twospotted spider mite. No. 16: 3-4.
- Cloyd, R. June 29, 2012. Aster yellows. No. 16: 1-2.
- Cloyd, R. June 22, 2012. Japanese beetle on roses: What can you do? No. 15: 3-5.
- Cloyd, R. June 22, 2012. OH...NO!! Bagworms: What can you do? No. 15: 1-2.
- Cloyd, R. June 15, 2012. Lime-sulfur: A multi-use pesticide. No. 14: 1-2.
- Cloyd, R. June 1, 2012. Twospotted spider mite on roses. No. 12: 2-5.
- Cloyd, R. June 1, 2012. Genista caterpillar. No. 12: 1-2.
- Cloyd, R. May 24, 2012. Hollyhock weevil. No. 11: 1-2.
- Cloyd, R. May 19, 2012. How do plants defend themselves against insect pests? No. 10: 1-2.

- Cloyd, R. May 4, 2012. What are all those moths flying around? No. 8: 1-2.
- Cloyd, R. April 20, 2012. Rotenone: A botanical insecticide. No. 7: 1-2.
- Cloyd, R. April 13, 2012. Aphids on roses. No. 6: 1-2.
- Cloyd, R. April 6, 2012. Lilac or ash borer: Be ready for this “critter.” No. 5: 1-2.
- Cloyd, R. March 16, 2012. Scale crawlers: Be on the look-out! No. 2: 1-3.
- Cloyd, R. September 23, 2011. Caterpillar pests: Chewers that have the munchies! No. 24: 1-4.
- Cloyd, R. September 9, 2011. Mimosa webworm... There here and doing damage. No. 22: 1-2.
- Cloyd, R. August 19, 2011. Yellownecked caterpillar. No. 19: 1-3.
- Cloyd, R. August 4, 2011. How does “drought or heat stress” influence plant-insect interactions? No. 17: 1-3.
- Cloyd, R. July 21, 2011. Hey...what is that eating my sweet potato vine? No. 15: 1-2.
- Cloyd, R. July 1, 2011. Bagworms are out-and-about. No. 12: 1-2.
- Cloyd, R. June 17, 2011. Thrips on roses...What can you do? No. 10: 1-2.
- Cloyd, R. June 3, 2011. Dealing with caterpillar pests. No. 8: 2-3.
- Cloyd, R. June 3, 2011. Clover mites. No. 8: 1-2.
- Cloyd, R. May 20, 2011. Voles. No. 6: 2-3.
- Cloyd, R. May 20, 2011. Be on the look-out for spruce spider mite. No. 6: 1-2.
- Cloyd, R. May 6, 2011. Insecticides: What’s new in the marketplace? No. 4: 4-5.
- Cloyd, R. April 22, 2011. Earthworms and pesticides. No. 3: 1-3.
- Cloyd, R. April 8, 2011. Tomato russet mite...oh no!! No. 1: 16-18.
- Cloyd, R. October 29, 2010. Time to be thinking about the use of dormant oils. No. 30: 2-4.
- Cloyd, R. October 29, 2010. Yellow collared scape moth. No. 30: 1-2.
- Cloyd, R. October 22, 2010. Put out the welcome mat: Here comes the Asian lady beetle! No. 29: 1-3.
- Cloyd, R. October 8, 2010. Parsleyworm or black swallowtail caterpillars. No. 28: 5-6.
- Cloyd, R. September 17, 2010. The impact of horticultural practices on insect and mite pests. No. 26: 4-8.
- Cloyd, R. September 10, 2010. Impact of pesticides on natural enemies: Secondary pest outbreak and target pest resurgence. No. 25: 1-3.
- Cloyd, R. August 20, 2010. Magnolia scale. No. 22: 1-2.
- Cloyd, R. August 6, 2010. Emerald ash borer and thousand cankers disease...Welcome to Tennessee!! No. 20: 3-4.
- Cloyd, R. August 6, 2010. Cicada killers. No. 20: 1-2.
- Cloyd, R. July 2, 2010. Twolined spittlebug...They are out-and-about! No. 15: 1.
- Cloyd, R. June 18, 2010. Slugs...With a bit of humor! No. 13: 1-3.
- Cloyd, R. June 11, 2010. What happened to my honeysuckle bush? No. 12: 3-5.
- Cloyd, R. June 11, 2010. Twospotted spider mite. No. 12: 2-3.
- Cloyd, R. June 11, 2010. Bagworms are here so beware!! No. 12: 1.
- Cloyd, R. May 28, 2010. Time to “weigh-in” on oystershell scale. No. 10: 1-2.
- Cloyd, R. May 20, 2010. Sowbugs and pillbugs. No. 9: 1-2.
- Cloyd, R. May 14, 2010. Spirea aphid. No. 8: 1-2.
- Cloyd, R. May 7, 2010. Squash vine borer. No. 7: 2-4.
- Cloyd, R. May 7, 2010. Euonymus scale. No. 7: 1-2.
- Cloyd, R. April 30, 2010. Get those caterpillar pests when they are young: how to effectively use *Bacillus thuringiensis* spp. *kurstaki*. No. 6: 3-5.
- Cloyd, R. April 16, 2010. What is that “bug” buzzing around me? It is March flies! No. 4: 1.
- Cloyd, R. April 9, 2010. Clover mite: The intrusive invader. No. 3: 11-12.
- Cloyd, R. April 9, 2010. Asian lady beetle: Just let them be. No. 3: 9-11.
- Cloyd, R. April 2, 2010. Homeowner products: Insecticides for use on vegetables and fruits. No. 2: 1-2.
- Cloyd, R. March 26, 2010. Organic disease control (ODC™): is this “stuff” for real and how does it work? No. 1: 9-11.

- Cloyd, R. October 23, 2009. Benefits of using dormant oils to manage arthropod pests. No. 30: 1-2.
- Cloyd, R. September 18, 2009. Parsleyworm or black swallowtail. No. 26: 1.
- Cloyd, R. September 4, 2009. Beneficial wasp: *Scolia dubia*. No. 24: 1.
- Cloyd, R. August 14, 2009. Yellownecked caterpillar. No. 22: 1-2.
- Cloyd, R. July 31, 2009. Honeysuckle aphid. No. 20: 3-4.
- Cloyd, R. A. July 17, 2009. Cicada killers. No. 18: 6-7.
- Cloyd, R. July 10, 2009. Japanese beetle adults. No. 17: 2-3.
- Cloyd, R. July 10, 2009. Mimosa webworm. No. 17: 1.
- Cloyd, R. July 2, 2009. What is the impact of drought stress on plant-insect interactions? No. 16: 5-6.
- Cloyd, R. July 2, 2009. Lace bugs. No. 16: 3-5.
- Cloyd, R. June 19, 2009. Aphids in greenhouses: what can be used in organic production systems? No. 14: 5-8.
- Cloyd, R. June 12, 2009. Twospotted spider mite. No. 13: 3-4.
- Cloyd, R. June 12, 2009. Bagworms. No. 13: 1-3.
- Cloyd, R. A. May 8, 2009. Mulches and living organisms. No. 8: 4-7.
- Cloyd, R. A. May 8, 2009. Pine tortoise scale. No. 8: 3-4.
- Cloyd, R. A. April 24, 2009. Spruce spider mite. No. 6: 1-2.
- Cloyd, R. A. April 10, 2009. New pest control materials. No. 4: 1-2.
- Cloyd, R. March 27, 2009. Clover mite. No. 2: 1-2.
- Cloyd, R. August 8, 2008. Emerald ash borer. No. 18: 2.
- Cloyd, R. August 8, 2008. Spider mites and pyrethroid-based pest control materials. No. 18: 1.
- Cloyd, R. August 5, 2008. Cicada killer wasps. No. 22: 3.
- Cloyd, R. August 5, 2008. Pine pitch moth. No. 22: 2.
- Cloyd, R. August 5, 2008. Bagworms: Is it too late to treat? No. 22: 1.
- Cloyd, R. July 25, 2008. Cicada killer. No. 16: 2-3.
- Cloyd, R. July 25, 2008. Walnut caterpillar. No. 16: 2.
- Cloyd, R. July 25, 2008. Sowbugs and pillbugs. No. 16: 1.
- Cloyd, R. July 11, 2008. Mimosa webworm is out-and-about. No. 14: 1-2.
- Cloyd, R. July 3, 2008. Golden tortoise beetle. No. 13: 2.
- Cloyd, R. July 3, 2008. Bagworms: What to use? No. 13: 1.
- Cloyd, R. A. June 20, 2008. Twospotted spider mite. No. 11: 1-2.
- Cloyd, R. A. May 2, 2008. Clover mites. No. 5: 2-3.
- Cloyd, R. A. April 18, 2008. Soft and hard scales: what is the difference? No. 3: 3-4.
- 10. Miscellaneous (Articles, Brochures, and APPS)**
- Wollaeger, H., R. Cloyd, and D. Smitley. January 13, 2014. Bounce dryer sheets for fungus gnat control: more than household items? ([http://msue.anr.msu.edu/news/bounce\\_dryer\\_sheets\\_for\\_fungus\\_gnat\\_control\\_more\\_than\\_household\\_items](http://msue.anr.msu.edu/news/bounce_dryer_sheets_for_fungus_gnat_control_more_than_household_items))
- Raudenbush, Z., and R. Cloyd. July 17, 2014. Black cutworms (<http://www.ksuturf.org/blog/2014/07/black-cutworms/>)
- Thompson, C., and R. A. Cloyd. May 30, 2014. Planning for white grub control (<http://www.ksuturf.org/blog/2014/05/planning-for-white-grub-control/>)
- Insect and mite web app (<http://www.egro.mobi>) 2014.
- Thrips management program for ornamental horticulture. 2011. 2 pgs.
- Whitefly (*Bemisia tabaci*) management program for ornamental plants. 2011. 4 pgs.
- Mode of action chart & pest activity. BioWorks: Victor, NY. 2010. 2 pgs.
- Cloyd, R. A., and M. D. Epp. Working with insect and mite pests organically. Kansas State University and the Wichita Organic Garden Club. 2010. 2 pgs.



Management program for whiteflies on propagated ornamentals with an emphasis on the Q-biotype; [www.mrec.ifas.ufl.edu/LSO/bemisia/bemisia.htm](http://www.mrec.ifas.ufl.edu/LSO/bemisia/bemisia.htm). 2006. 8 pgs.

### **11. Presentations (General)**

Japanese beetles (December 16, 2019. Heartland Green Industry Expo; Olathe, KS).

Caterpillar pests of ornamentals and turfgrass (December 16, 2019. Heartland Green Industry Expo; Olathe, KS).

Integrating pesticides with biological control agents: can it be done? (December 11, 2019. Great Lakes and Michigan Greenhouse Growers Expo; Grand Rapids, MI).

Understanding the fundamentals of systemic insecticides (December 10, 2019. Great Lakes and Michigan Greenhouse Growers Expo; Grand Rapids, MI).

Honey bee maladies: parasites, diseases, and pests of honey bees (December 5, 2019. 69th Annual Kansas Turfgrass Conference; Manhattan, KS).

Japanese beetles: what can you do? (December 4, 2019. 69th Annual Kansas Turfgrass Conference; Manhattan, KS).

Neonicotinoids and pollinators: what is the truth and what are the misconceptions? (November 14, 2019. PlantRight's Fall Networking Educational Event; Lenexa, KS).

Pesticides and bees: the myths and the facts (October 22, 2019. Floriculture Research Alliance Annual Meeting; Denver, CO).

Arachnophobia: all about spiders (October 19, 2019. Blueville Nursery Educational Seminar; Manhattan, KS).

Tree insects (October 7, 2019. 46th Kansas Arborists Association Training Course; Manhattan, KS).

Pesticides and honey bees: what are the facts and misconceptions? (September 24, 2019. Beekeeping Basics Workshop; Manhattan, KS).

Parasites, pathogens, and other honey bee maladies (September 24, 2019. Beekeeping Basics Workshop; Manhattan, KS).

Effects of pesticides (fungicides, insect growth regulators, and herbicides) and adjuvants on honey bees (September 16, 2019. Northeastern Kansas Beekeepers Association Meeting; Lawrence, KS).

Scale insect pests (September 11, 2019. Turf to Trees: Applied Urban Integrated Pest Management Workshop; Bozeman, MT).

Diagnosing insect and mite pest problems, and identification on horticultural crops (September 11, 2019. Turf to Trees: Applied Urban Integrated Pest Management Workshop; Bozeman, MT).

Biological control and biopesticides: can these two be integrated as a component of a plant protection strategy? (September 10, 2019. IPM for Greenhouses and Local Foods; Bozeman, MT).

Sanitation: 'first line of defense' against pests (September 10, 2019. IPM for Greenhouses and Local Foods; Bozeman, MT).

Bugology: what it takes to succeed using biological control (August 27, 2019. Firelands Scientific Lunch & Learn Seminar; Huron, OH).

How to deal with biting arthropods: ticks, chiggers, and mosquitoes (August 17, 2019. Blueville Nursery Educational Seminar; Manhattan, KS).

Resistance management: what does this mean? (August 15, 2019. Carlin's BuyerFest Show; Brooklyn Center, MN).

How to succeed using biological control (August 15, 2019. Carlin's BuyerFest Show; Brooklyn Center, MN).

Diagnosing insect and mite pest problems on horticultural crops (August 13, 2019. Topeka Rose Society Meeting; Topeka, KS).

Up-date on "new" pesticides for use in greenhouse production systems (August 13, 2019. Hummert International Kick Off Event; Kingsville, MO).

Up-date on "new" pesticides for use in greenhouse production systems (August 12, 2019. Hummert International Customer Appreciation Meeting; Wichita, KS).

- Up-date on “new” pesticides for use in greenhouse production systems (August 5, 2019. Hummert International Customer Appreciation Kick Off Meeting; Salina, KS).
- Turfgrass & ornamental insect update (August 1, 2019. Kansas Turfgrass and Ornamentals Field Day; Olathe, KS).
- Up-date on “new” pesticides for use in greenhouse production systems (July 29, 2019. Hummert International Customer Appreciation Meeting; Garnett, KS).
- Dealing with insect and mite pests in your garden (July 22, 2019. Growing Growers Insect, Disease, and Weed Management Workshop; Wichita, KS).
- How to deal with insect and mite pests of interior plantscapes (July 15, 2019. Cultivate’19; Columbus, OH).
- Bayer breakfast: Altus—my experiences and insights associated with this new insecticide (July 15, 2019. Cultivate’19; Columbus, OH).
- Mealybug management: what can you do to avoid problems with this ‘sneaky pest?’ (July 14, 2019. Cultivate’19; Columbus, OH).
- Up-date on pesticides for use in greenhouse production systems (July 14, 2019. Cultivate’19; Columbus, OH).
- Identification of greenhouse insect and mite pests (July 13, 2019. Cultivate’19; Columbus, OH).
- Scale insect pests of Kansas (June 21, 2019. Kansas Arborists Association Summer Field Day; Olathe, KS).
- How to deal with thrips in horticultural production systems (June 13, 2019. Seville Grower Training; Mansfield, TX).
- How to deal with mite pests in horticultural production systems (June 13, 2019. Seville Grower Training; Mansfield, TX).
- ‘Bugs’ in the landscape and garden (June 8, 2019. Blueville Nursery Educational Seminar; Manhattan, KS).
- Field identification of insect and mite pests of Christmas trees (June 8, 2019. Kansas Christmas Tree Growers Association Summer Meeting; Lawrence, KS).
- Plant protection in vegetable gardens: dealing with insect and mite pests (June 5, 2019. Garden For Good Training; Hutchinson, KS).
- Pesticides and bees: “what about the effects of fungicides, herbicides, and adjuvants?” (May 14, 2019. Cherokee County Area Beekeepers Association Meeting; Columbus, OH).
- Bugology: understanding the fundamentals of biological control (April 12, 2019. Missouri Cannabis Industry Association Conference; Bridgeton, MO).
- Bug-O-Mania: how to effectively deal with insect and mite pests in vegetable gardens (April 5, 2019. Arnold’s Greenhouse Spring Open House; LeRoy, KS).
- Bugology: what it takes to succeed using biological control (April 1, 2019. Cannabis Conference; Las Vegas, NV).
- OH NO...what can I do about Japanese beetles? (March 23, 2019. Spring Rose Care Demonstration; Kansas City, MO).
- Scale insect pests of ornamentals (March 21, 2019. Gard’N Wise Dealer Training; Littleton, CO).
- How to avoid getting “chewed-up” by caterpillar pests (March 21, 2019. Gard’N Wise Dealer Training; Littleton, CO).
- Scale insect pests of Kansas (February 26, 2019. Gard’N Wise Clerk Training; Dodge City, KS).
- Scale insect pests of Kansas (February 21, 2019. Gard’N Wise Clerk Training; Lenexa, KS).
- Scale insect pests of Kansas (February 19, 2019. Gard’N Wise Clerk Training; Wichita, KS).
- Betting on bugs: pesticides and protecting bees (February 8, 2019. Kansas Garden Show; Topeka, KS).
- Hollywood and entomology: history of the 1950’s “BIG BUG” science fiction movies (February 4, 2019. Popenoe Entomology Club Meeting; Manhattan, KS).
- What are the ‘good bugs’ in your garden? (January 28, 2019. Town and Country Garden Club Meeting; Manhattan, KS).
- Impact of pesticides on pollinators (January 23, 2019. Southeast Greenhouse Grower’s Day; East Earl, PA).

- Mealybugs: what are your options against this ‘sneaky pest?’ (January 23, 2019. Southeast Greenhouse Grower’s Day; East Earl, PA).
- Understanding the fundamentals of biological control (January 17, 2019. Greenhouse Growers Seminar: Brown County UW-Extension; Green Bay, WI).
- How to deal with mite pests in greenhouse production systems (January 17, 2019. Greenhouse Growers Seminar: Brown County UW-Extension; Green Bay, WI).
- How to avoid getting ‘weighed-down’ by scale insect pests (January 9, 2019. Montana Green Expo; Billings, MT).
- Latest news on pesticides and bees (January 9, 2019. Montana Green Expo; Billings, MT).
- Impact of fungicides and insecticides on beneficial insects (January 5, 2019. Kansas Grape Growers and Winemakers Association Conference—Heartland Wine Conference; Lawrence, KS).
- How to help beneficial insects in your vineyards (January 5, 2019. Kansas Grape Growers and Winemakers Association Conference—Heartland Wine Conference; Lawrence, KS).
- What to do about biting arthropods: ticks, chiggers, and mosquitoes (December 17, 2018. Heartland Green Industry Expo; Olathe, KS).
- How do insect and mite pests overwinter? (December 17, 2018. Heartland Green Industry Expo; Olathe, KS).
- Understanding the basics of insecticide resistance (December 12, 2018. Horticulture Program Focus Team; Manhattan, KS).
- Identification and management of greenhouse insect and mite pests (December 8, 2018. Seventh Annual Horticulture Teacher’s Conference; Manhattan, KS).
- Pesticides and pollinators: what about the effects of fungicides, herbicides and surfactants on bees? (December 5, 2018. 68<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Understanding the basics of insecticide resistance (December 5, 2018. 68<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Meet the pests (December 4, 2018. 68<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- What do you need to know to make biological controls work? (November 15, 2018. 11<sup>th</sup> Annual Poinsettia Trial Open House; Millstadt, IL).
- What is new in the ‘bug’ world? (October 30, 2018. Kansas Greenhouse Growers Association Educational Event; Manhattan, KS).
- OH NO...mealybugs: what can you do? (October 30, 2018. Kansas Greenhouse Growers Association Educational Event; Manhattan, KS).
- Up-date on thrips and mealybug management (October 16, 2018. Annual Meeting of Floriculture Research Alliance; Minneapolis, MN).
- How to attract butterflies to your yard (October 9, 2018. Prairie Roots Garden Club; Manhattan, KS).
- Tree insects (October 8, 2018. 45<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Insect pest management in the rooting station (October 3, 2018. Rooting Station Technical Meeting; Warrenville, IL).
- ‘Bug-b-gone:’ how to effectively deal with ‘bugs’ in cut flower production systems [September 26, 2018. Association of Specialty Cut Flower Growers (ASCFG) Conference; Raleigh, NC]
- Correlation of tick bites to allergies of eating red meat and other insect issues (September 20, 2018. Rural Agriculture Expo; Columbus, KS).
- ‘Bug-o-mania:’ dealing with broad mites and whiteflies in greenhouse production systems (August 3, 2018. Plantpeddler Variety Day 2018; Cresco, IA).
- Turfgrass & ornamental insect update (August 2, 2018. Kansas Turfgrass Field Day; Manhattan, KS).
- Understanding resistance management (July 25, 2018. Tulsa Summer Seminar; Broken Arrow, OK).
- Top 10 ‘bugs’ in your garden (July 21, 2018. Blueville Nursery Educational Seminar; Manhattan, KS).
- Honey bee maladies: identification and management of harmful parasites, diseases, and pests (July 10, 2018. Konza Beekeepers Association Meeting; Manhattan, KS).

- How to best deal with mite pests (June 17, 2018. Syngenta Greenhouse Educational Meetings and Tours: Bay City Flower Company; Half Moon Bay, CA).
- How to best deal with western flower thrips (June 26, 2018. Syngenta Greenhouse Educational Meetings and Tours: Kawahara Nursery Inc.; Morgan Hill, CA).
- “Let me tell you about the birds and the bees” (June 18, 2018. Strong-Satellites 4-H Club Monthly Meeting; Manhattan, KS).
- How to effectively deal with insect and mite pests in vegetable gardens (May 16, 2018. Garden for Good Training: Hutchinson Correctional Facility; Hutchinson, KS).
- Bug mania (June 15, 2018. Kansas Arborists Association Summer Field Day; Lawrence, KS).
- Top 10 insects in your garden (May 10, 2018. Post Rock Extension Educational Meeting; Concordia, KS).
- “Creepy critters” (May 4, 2018. Transfer Station Public Works Safety Meeting; Westmoreland, KS).
- Gardening for pollinators (May 2, 2018. PBPN Gardening Workshop; Mayetta, KS).
- Pesticides: just the facts (April 15, 2018. Gardening for Success Conference; Cheyenne, WY).
- Insect insomnia: how to effectively deal with insect and mite pests in vegetable gardens (April 15, 2018. Gardening for Success Conference; Cheyenne, WY).
- Pollinators and pesticides: what are the facts? (March 22, 2018. Gard’N Wise Dealer Training; Littleton, CO).
- What to do about emerald ash borer and Japanese beetle adults? (March 22, 2018. Gard’N Wise Dealer Training; Littleton, CO).
- Hollywood and entomology: history of the 1950’s “BIG BUG” science fiction movies (March 17, 2018. Wyoming Bee College; Cheyenne, WY).
- Pesticides and pollinators (Bee Safety) (March 17, 2018. Wyoming Bee College; Cheyenne, WY).
- Plant protection: understanding the factors that can impact the success of biological control (March 12, 2018. Cannabis Cultivation Conference; Oakland, CA).
- Bug off: how to effectively deal with insect and mite pests in vegetable gardens (March 10, 2018. Harvey County Home and Garden Show; Newton, KS).
- Arachnophobia: all about spiders (March 10, 2018. Harvey County Home and Garden Show; Newton, KS).
- How to avoid getting “chewed-up:” dealing with caterpillar pests (February 27, 2018. Gard’N Wise Clerk Training; Dodge City, KS).
- Butterflies in the garden (February 26, 2018. Town and Country Garden Club; Manhattan, KS).
- Biology and insecticide management for fungus gnats (February 22, 2018. Pest Management Symposium; Watsonville, CA).
- Biology and insecticide management for western flower thrips (February 22, 2018. Pest Management Symposium; Watsonville, CA).
- How to avoid getting “chewed-up:” dealing with caterpillar pests (February 20, 2018. Gard’N Wise Clerk Training; Wichita, KS).
- Top 10 bugs in your garden (February 20, 2018. Gard’N Wise Clerk Training; Wichita, KS).
- Pesticides and pollinators (February 10, 2018. Design and Grow Gardening Workshop; Wichita, KS).
- Top 10 bugs in your garden (February 10, 2018. Design and Grow Gardening Workshop; Wichita, KS).
- Top 10 bugs in your garden (February 9, 2018. Kansas Garden Show; Topeka, KS).
- Dealing with pests in “organic” production systems (February 2, 2018. Mid-America Organic Conference; Independence, MO).
- How can pesticides impact pollinators? (February 1, 2018. SiteOne University Conference; Wichita, KS).
- How to effectively deal with turfgrass insect pests (February 1, 2018. SiteOne University Conference; Wichita, KS).
- “Managing” western flower thrips (January 31, 2018. Mid-Atlantic Fruit and Vegetable Conference; Hershey, PA).
- Mealybug management (January 31, 2018. Mid-Atlantic Fruit and Vegetable Conference; Hershey, PA).

- Up-date on western flower thrips, mites, and whiteflies—what can you do to alleviate problems with these “bugs?” (January 23, 2018. BFG Red Oak Educational Event; Red Oak, IA).
- An up-date on scales and Japanese beetle [January 18, 2018. Annual Meeting (AM18-INSPIRE U): Is It Not Just Business—It Is Personal; Overland Park, KS].
- Management of insect and mite vectors of vegetable diseases (January 12, 2018. Great Plains Growers and Trade Show; St. Joseph, MO).
- Understanding the fundamentals of insecticide and miticide resistance: what to do about it? (January 12, 2018. Great Plains Growers Conference and Trade Show; St. Joseph, MO).
- The impact of pesticides on pollinators (January 6, 2018. Kansas Grape Growers and Winemakers Association Conference; Lawrence, KS).
- Insect pests of Midwest vineyards (January 5, 2018. Kansas Grape Growers and Winemakers Association Conference; Lawrence, KS).
- An up-date on emerald ash borer and effectively using insecticides against grubs in turfgrass (December 18, 2017. Heartland Green Industry Expo: “Common Ground” Education Conference; Olathe, KS).
- “What’s biting me?” Understanding ekbom syndrome/delusory parasitosis (December 12, 2017. Horticulture Professional Faculty Training [PFT]; Manhattan, KS).
- Dealing with grubs in turfgrass (December 5, 2017. 67<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Don’t get “chewed-up” by caterpillars (December 5, 2017. 67<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Insect and mite pests of daylilies (December 3, 2017. Kansas City Daylily Organization Bi-Monthly Meeting; Kansas City, MO).
- Don’t get “mixed-up” using pesticide mixtures (November 30, 2017. Siflor 2017: Simposia Internacional de la Floricultura; Quito, Ecuador, South America).
- How to improve pesticide performance (November 29, 2017. Siflor 2017: Simposia Internacional de la Floricultura; Quito, Ecuador, South America).
- Integrating pesticides with natural enemies: is it possible? (October 25, 2017. Biological Control for Greenhouses and Interiorscapes Workshop; Stillwater, OK).
- Pests impacting landscapes in our area (October 10, 2017. Prairie Village Fall Tree Board Seminar; Prairie Village, KS).
- Tree insects (October 9, 2017. 44<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- “What’s with all these bugs?” Plant protection of greenhouse insect and mite pests (September 21, 2017. Department of Plant Pathology Seminar Series; Kansas State University, Manhattan, KS).
- Management of insect and mite vectors of plant diseases (September 7, 2017. ISE #79: Integrated Approaches of Managing Diseases on Vegetables, Berries, and Grapes; Jefferson City, MO).
- Understanding the fundamentals of insecticide and miticide resistance (September 7, 2017. ISE #79: Integrated Approaches of Managing Diseases on Vegetables, Berries, and Grapes; Jefferson, City, MO).
- Western flower thrips, aphids, mites, and whiteflies: what can be done to alleviate problems with these “bugs?” (August 31, 2017. Winfield Academy “Lunch and Learn” Event; Denver, CO).
- Plant protection of insect and mite pests on greenhouse-grown horticultural crops (August 30, 2017. International Managers Meeting [IMM]; Chicago, IL).
- Plant protection of greenhouse insect and mite pests (August 24, 2017. Farwest Show; Portland, OR).
- Scale management (August 23, 2017. Farwest Show; Portland, OR).
- Rose rosette disease (virus): background, vector, and management (August 21, 2017. Rose Rosette Disease Workshop; Kansas City, MO).
- Biological control in greenhouse production systems (August 8, 2017. Tessman Product Buying Show; Oakdale, MN).
- Turf & ornamental insect control (August 3, 2017. Turf & Ornamentals Field Day; Haysville, KS).

- Impact of neonicotinoid systemic insecticides on bees (August 2, 2017. BFG 2017 Expo; Brooklyn Center, MN).
- Pesticides and pollinators: greenhouse production perspective (July 31, 2017. Bailey Nurseries Educational Meeting for Sales Representatives; Minneapolis, MN).
- Plant protection of insect and mite pests associated with perennials (July 25, 2017. 35<sup>th</sup> Annual Perennial Plant Symposium; Denver, CO).
- When biocontrols aren't an option: pest management answers (July 17, 2017. Cultivate'17; Columbus, OH).
- Mealybugs: arch nemesis no more (July 16, 2017. Cultivate'17; Columbus, OH).
- Pesticides & pollinators: greenhouse production perspective (July 15, 2017. Cultivate'17; Columbus, OH).
- How to succeed using biocontrols (July 15, 2017. Cultivate'17; Columbus, OH).
- Fly management (June 21, 2017. Fly Management Class for Homeowners in Blue Township; Manhattan, KS).
- Oak leaf itch mite: how can you avoid getting the "scratchies?" (July 13, 2017. Ward Meade Garden Club; Topeka, KS).
- Understanding how pesticides impact pollinators (July 12, 2017. Association of Education and Research Greenhouse Curators Annual Meeting; Ames, IA).
- Oak leaf itch mite: making it difficult to enjoy the outdoors (July 5, 2017. Manhattan Optimist Club; Manhattan, KS).
- Update on insect and mite pests in Kansas (June 16, 2017. Kansas Arborists Association Summer Field Day; Lenexa, KS).
- Direct and indirect effects of pesticides and pesticide mixtures on the insidious flower bug, *Orius insidiosus*, under laboratory conditions (June 6, 2017. IOBC-WPRS Working Group: Integrated Control in Protected Crops, Temperate Climate; Niagara Falls, Canada).
- Insect and mite pests of Christmas trees (June 3, 2017. Kansas Christmas Tree Growers Association Summer Meeting; Lawrence, KS).
- Pesticides and bees (May 18, 2017. Master Gardener Monthly Gathering; Wichita, KS).
- Pollinators and pesticides (May 13, 2017. Master Gardeners Garden Fair; Salina, KS).
- Diseases vectored by insects and mites (May 9, 2017. Topeka Rose Society Meeting; Topeka, KS).
- Gardening for pollinators (April 25, 2017. Kickapoo Gardening Workshop; Horton, KS).
- Why do my oak trees make me itch? (April 15, 2017. Blueville Nursery Educational Seminar; Manhattan, KS).
- Effects of pesticides on pollinators (April 12, 2017. Kansas Department of Agriculture Pesticide/Fertilizer Staff Meeting; Manhattan, KS).
- Pollinators and pesticides (March 11, 2017. Hutchinson Horticulture Club's Annual Gathering for Gardeners; Hutchinson, KS).
- Pesticide use and safety (March 11, 2017. Harvey County Home and Garden Show; Newton, KS).
- Butterflies in the garden (March 11, 2017. Harvey County Home and Garden Show; Newton, KS).
- Biological control and biopesticides: an integrated plant protection strategy that's time has come (March 2, 2017. BioControls USA West 2017 Conference and Expo; Reno, NV).
- Invasive and non-invasive pests in Kansas (February 27, 2017. Town and Country Garden Club; Manhattan, KS).
- Oak leaf itch mites: what can you do? (February 23, 2017. Gard'N Wise Clerk Training; Lenexa, KS).
- Pesticides and pollinators (February 23, 2017. Gard'N Wise Clerk Training; Lenexa, KS).
- Pesticides and pollinators (February 21, 2017. Gard'N Wise Clerk Training; Wichita, KS).
- Pesticides and pollinators (February 18, 2017. 2017 Design and Grow Gardening Workshop; Wichita, KS).
- Pesticides and pollinators (February 16, 2017. Gard'N Wise Clerk Training; Dodge City, KS).
- Insect and mite disease interactions (February 14, 2017. Wichita Rose Society Meeting; Wichita, KS).
- Oak leaf itch mites: how to avoid the "scratches" (February 10, 2017. Kansas Garden Show; Topeka, KS).

- Pesticides and pollinators (February 4, 2017. 8<sup>th</sup> Annual Central Kansas Market Grower and Vendor Workshop; Wichita, KS).
- Pollinators and pesticides: preventing impacts on non-target organisms (February 2, 2017. National Railroad Contractors Association Weed Control Seminar; Indianapolis, IN).
- Fundamentals of turf pest control (January 31, 2017. SiteOne University; Wichita, KS).
- Fundamentals of ornamental pest control (January 31, 2017. SiteOne University; Wichita, KS).
- Pesticides and pollinators (January 28, 2017. Olathe Community Winter Vegetable Workshop; Olathe, KS).
- Pesticide usage—conventional or “organic?” (January 28, 2017. Olathe Community Winter Vegetable Workshop; Olathe, KS).
- Plant protection—dealing with insects and mites in the vegetable garden (January 28, 2017. Olathe Community Winter Vegetable Workshop; Olathe, KS).
- Don’t allow mealybugs to creep up on you (January 26, 2017. Lower Mainland Horticulture Improvement Association Horticultural Growers’ Short Course; Abbotsford, British Columbia, Canada).
- Managing aphids on floriculture crops (January 26, 2017. Lower Mainland Horticulture Improvement Association Horticultural Growers’ Short Course; Abbotsford, British Columbia, Canada).
- Best rotation programs to avoid resistance (January 25, 2017. BWI Grower Seminar; Tyler, TX).
- Plant protection of insect and mite pests (January 25, 2017. BWI Grower Seminar; Tyler, TX).
- Best rotation programs to avoid resistance (January 24, 2017. BWI Grower Seminar; Buda, TX).
- Plant protection of insect and mite pests (January 24, 2017. BWI Grower Seminar; Buda, TX).
- The effects of insecticides on pollinators: fact or fiction? (January 13, 2017. 62<sup>nd</sup> Annual Shade Tree Conference; Topeka, KS).
- Resistance management in greenhouse food crops (January 12, 2017. Great Plains Growers Conference and Trade Show; St. Joseph, MO).
- Managing greenhouse pests and mites for food crops (January 12, 2017. Great Plains Growers Conference and Trade Show; St. Joseph, MO).
- Oak leaf itch mite (December 15, 2016. Manhattan Men’s Garden Club December Meeting; Manhattan, KS).
- Scale insects (December 13, 2016. Heartland Green Industry Expo [Educational Conference]; Olathe, KS).
- Pesticides and pollinators (December 7, 2016. Missouri Green Industry Conference; St. Charles, MO).
- Pesticides and pollinators (December 6, 2016. 66<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Review of insect and mite pests of horticultural crops and turfgrass (December 6, 2016. 66<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- The basics of biological control (November 18, 2016. 4<sup>th</sup> Annual FFA Teachers Seminar: Sponsored by Hummert International; Manhattan, KS).
- Western flower thrips and non-neonicotinoid insecticides (November 17, 2016. 9<sup>th</sup> Annual Poinsettia Trial Open House; Millstadt, IL).
- Mealybug management: how to deal with this “fuzzy-sucking” insect pest (November 10, 2016. Northeast Greenhouse Conference and Expo; Boxborough, MA).
- Fundamentals of biological control (October 18, 2016. Kansas Greenhouse Growers Association Biological Control Workshop; Manhattan, KS).
- Integrating biological control and pesticides in horticultural production systems (October 12, 2016. Department of Entomology and Plant Pathology Seminar Series; Oklahoma State University, Stillwater, OK).
- Tree insects (October 10, 2016. 43<sup>rd</sup> Kansas Arborists Association Training Course; Manhattan KS).
- Plant protection up-date (October 6, 2016. Winfield Academy Innovation Tour; Kalamazoo, MI).
- Butterflies in the garden (October 5, 2016. Kansas Association for Family and Community Education State Conference; Topeka, KS).
- Plant protection up-date (October 4, 2016. Winfield Academy Innovation Tour; Rogers, MN).
- Pesticides and pollinators (October 1, 2016. Advanced Master Gardener Training; Manhattan, KS).

- What are the non-neonicotinoid options? (September 15, 2016. Carlin BuyerFest; West Bend, WI).
- Western flower thrips management (September 15, 2016. Carlin BuyerFest; West Bend, WI).
- Effect of systemic insecticides on pollinators (September 14, 2016. Carlin BuyerFest; West Bend, WI).
- Plant protection for rose growers (September 10, 2016. Illinois-Indiana Fall Meeting and Rose Show; Decatur, IL).
- Tank mixing pesticides (September 7, 2016. Siflor 2016: Simposio Internacional de la Floricultura; Medellin, Colombia, South America).
- Western flower thrips management (September 6, 2016. Siflor 2016: Simposio Internacional de la Floricultura; Medellin, Colombia, South America).
- Pesticides, bees, and monarch butterflies (August 25, 2016. Chattanooga Rose Society Meeting; Chattanooga, TN).
- Don't get "weighed down" by scales (August 11, 2016. 2016 MNLA and KNLA Border Tour and Conference; Ottawa, KS).
- Pesticides and pollinator protection (August 11, 2016. North Central Region PACT Workshop; Manhattan, KS).
- How to effectively use pesticides in your landscape and garden (June 11, 2016. Blueville Nursery Educational Seminar; Manhattan, KS).
- Western flower thrips: is the game over? (July 21, 2016. Association of Education and Research Greenhouse Curators Annual Meeting; Ithaca, NY).
- Insect pest update (June 24, 2016. Kansas Arborists Association Summer Field Day; Lawrence, KS).
- Issues associated with pollinators (June 16, 2016. Master Gardener Educational Training; Kansas City, KS).
- Is there really such-a-thing as an "organic" pesticide? (April 21, 2016. Extension Educational Meeting; Hays, KS).
- Pesticides and pollinators (April 21, 2016. Extension Educational Meeting; Hays, KS).
- Waterloo: is the battle against western flower thrips lost? (April 5, 2016. 100<sup>th</sup> Annual Meeting of the Pacific Branch of the Entomological Society of America. Symposium: Challenges and Solutions for the Floriculture and Nursery Industry's Exotic Pest Crisis; Honolulu, HI).
- Proper pesticide usage (April 2, 2016. Spring Open House: Horticultural Services Garden Center; Manhattan, KS).
- Pest identification and "organic" control (March 31, 2016. Kansas State University Farm Club, Kansas State University; Manhattan, KS).
- Life and times of the 17-year periodical cicada (March 28, 2016. Town and Country Garden Club; Manhattan, KS).
- Extension and diagnostics (March 24, 2016. PEC Professional Development Seminar: Department of Entomology; Kansas State University, Manhattan, KS).
- Insect and mite management (March 14, 2016. 2016 Growing Growers Insect, Disease, and Weed Management Workshop; Lawrence, KS).
- Top 10 pests for 2016 (March 11, 2016. By Monthly Pot Luck Educational Meeting; Manhattan, KS).
- Western flower thrips management: what does the future hold? (March 3, 2016. Penn State Extension Western Pennsylvania Nearly Spring Greenhouse Night-Lighter; Gibsonia, PA).
- Pest management down-under: Australia and New Zealand (February 29, 2016. Department of Entomology Spring 2016 Seminar: Kansas State University, Department of Entomology; Manhattan, KS).
- The ABC's of butterflies (February 23, 2016. 2016 Gard'N Wise Clerk Training; Dodge City, KS).
- The ABC's of butterflies (February 18, 2016. 2016 Gard'N Wise Clerk Training; Lenexa, KS).
- The ABC's of butterflies (February 16, 2016. 2016 Gard'N Wise Clerk Training; Wichita, KS).
- Butterflies in your garden and itch mites (February 12, 2016. Kansas Garden Show; Topeka, KS).
- Systemic insecticides and pollinators (February 4, 2016. RetailWorks Conference Spring Training For Garden Center Employees; Manhattan, KS).



- Systemic insecticides and pollinators: what is really going on? [January 29, 2016. Integrated Environmental Plant Management Association of Western Canada (IEPMA) 20<sup>th</sup> Anniversary And Annual Conference; Kelowna, British Columbia, Canada].
- Diagnostics: what is wrong with my plants? (January 28, 2016. City of Kelowna Parks And Recreation Education Meeting; Kelowna, British Columbia, Canada).
- Diagnostics: what is wrong with my plants? [January 28, 2016. Integrated Environmental Plant Management Association of Western Canada (IEPMA) 20<sup>th</sup> Anniversary And Annual Conference; Kelowna, British Columbia, Canada].
- Concerns associated with pollinators in horticultural cropping systems (January 23, 2016. 30<sup>th</sup> Annual Heartland Wine Conference: Kansas Grape Growers and Winemakers Association; Manhattan, KS).
- Biopesticides and reduced-risk insecticides (January 23, 2016. 30<sup>th</sup> Annual Heartland Wine Conference: Kansas Grape Growers and Winemakers Association; Manhattan, KS).
- Whiteflies: how to deal with these suckers (January 21, 2016. 2016 Southeast Greenhouse Growers Day: Shady Maple Smorgasbord; East Earl, PA).
- Western flower thrips: is the game over? (January 21, 2016. 2016 Southeast Greenhouse Growers Day: Shady Maple Smorgasbord; East Earl, PA).
- Interactions between pollinators and agricultural systems: what is really going on? (January 19, 2016. Winter Meeting: Agriculture and Bees; Concordia, KS).
- Organic insect pest management with an emphasis on biological control (January 9, 2016. Great Plains Growers Conference And Trade Show; St. Joseph, MO).
- Managing two-spotted spider mites in hoop-houses using biological control (January 8, 2016. Great Plains Growers Conference And Trade Show; St. Joseph, MO).
- Reduced-risk insecticides and biopesticides (January 8, 2016. 2016 Great Plains Growers Conference And Trade Show; St. Joseph, MO).
- Tree & shrub pest diagnostics (January 7, 2016. Montana Green Expo; Missoula, MT).
- Greenhouse pest management (January 6, 2016. Montana Green Expo; Missoula, MT).
- Effectively dealing with insect and mite pests (December 14, 2015. Heartland Green Industry Expo; Olathe, KS).
- Issues associated with pollinators (December 14, 2015. Heartland Green Industry Expo; Olathe, KS).
- Identification and management of greenhouse insect and mite pests (December 11, 2015. 3<sup>rd</sup> Annual FFA Teachers Seminar; Manhattan, KS).
- Is using good bugs a cost-effective strategy for controlling insect pests of spring crops? (December 9, 2015. Michigan Greenhouse Growers Expo; Grand Rapids, MI).
- Managing pests on poinsettia and other greenhouse crops (December 8, 2015. Poinsettia Short Course and Trail Field Day; Gainesville, FL).
- Managing insect and mite pests of ornamentals and turfgrass (December 3, 2015. Kansas Pest Control Association Winter Conference and Exposition; Kansas City, KS).
- Factors impacting effectiveness of pesticides applied to turf (December 1, 2015. 65<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- What happened in 2015—"Bug wise?" (December 1, 2015. 65<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Systemic insecticides and pollinators, adjuvants, and how pesticides affect insect and mite pests (November 19, 2015. Kansas City Sales Meeting; Kansas City, MO).
- Western flower thrips management: Is the game over? (October 30, 2015. 2<sup>nd</sup> Annual Iowa State University Greenhouse Short Course; Ames, IA).
- How to go neonicotinoid-free (October 30, 2015. 2<sup>nd</sup> Annual Iowa State University Greenhouse Short Course; Ames, IA).

- Insect control strategies for greenhouse growers: Western flower thrips management—has an impasse been reached? (October 27, 2015. Greenhouse Product News Plant Health Management Conference; Springfield, MA).
- Diagnosing insect and mite pest problems (October 21, 2015. Kansas Greenhouse Growers Association Educational Workshop; Manhattan, KS).
- Butterflies in your garden (October 14, 2015. Broderick Family and Community Education Event; Westermoreland, KS).
- Tree insects (October 12, 2015. 42<sup>nd</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Managing insect and mite pests without pesticides (October 7, 2015. Commercial Flower Growers of Wisconsin 2015 Fall Greenhouse Conference; Denmark, WI).
- Neonicotinoid systemic insecticides and pollinators (October 7, 2015. Commercial Flower Growers of Wisconsin 2015 Fall Greenhouse Conference; Denmark, WI).
- Pest & disease management track—practicing effective integrated pest management II: Western flower thrips management: has an impasse been reached? (October 6, 2015. Greenhouse Product News Plant Health Management Conference; Grand Rapids, MI).
- Pest & disease management track—practicing effective integrated pest management I: Insect management without using neonicotinoid insecticides (October 6, 2015. Greenhouse Product News Plant Health Management Conference; Grand Rapids, MI).
- Effectively managing multiple-pest complexes (September 17, 2015. AmericanHort’s GrowPro Series: Greenhouse Solutions; Pittsburgh, PA).
- Effective insect management using neonicotinoid alternatives (September 16, 2015. AmericanHort’s GrowPro Series: Greenhouse Solutions; Pittsburgh, PA).
- Insect-disease interactions (September 16, 2015. AmericanHort’s GrowPro Series: Greenhouse Solutions; Pittsburgh, PA).
- Butterflies in the garden (September 11, 2015. Riley County Extension Master Gardeners Meeting; Manhattan, KS).
- Systemic insecticides and bees (pollinators) (August 27, 2015. FarWest Show; Portland, OR).
- Alternatives to neonicotinoids (August 27, 2015. FarWest Show; Portland, OR).
- Diagnostics: what’s wrong with my plants? (August 27, 2015. FarWest Show; Portland, OR).
- Diagnostics: what is going on with my plants? (August 25, 2015. BFG Hort Expo; Minneapolis, MN).
- Systemic insecticides and pollinators (August 25, 2015. BFG Hort Expo; Minneapolis, MN).
- Identification of greenhouse bugs (August 13, 2015. Carlin BuyerFest Annual Horticultural Trade Show; Minneapolis, MN).
- Systemic pesticides: getting “sucked-up” (August 13, 2015. Carlin BuyerFest Annual Horticultural Trade Show; Minneapolis, MN).
- What’s going on in the bug world? (August 6, 2015. Kansas Turf & Ornamentals Field Day; Olathe, KS).
- How to manage insect pests without neonicotinoids (July 23, 2015. BWI Tulsa Summer Seminar; Tulsa, OK).
- Insect growth regulators: how do they work? (July 23, 2015. BWI Tulsa Summer Seminar; Tulsa, OK).
- Why it is important to read pesticide labels (July 22, 2015. Linnaeus Teaching Garden Volunteer Training; Tulsa, OK).
- Controlling harmful insects—is there really such as thing as an “organic” pesticide? (July 9, 2015. Shawnee County Training; Topeka, KS).
- Systemic insecticides and pollinators: What is really going on? (July 8, 2015. Summer 2015 Green Industry Conference Responsible Green Industry Practices: Recognizing and Supporting Pollinator Conservation; Kirkwood, MO).
- Understanding and dealing with pests of roses (June 27, 2015. A Rose Care Seminar: Everything You Wanted To Know About Growing Roses Bug Were Afraid To Ask—Kansas City Rose Society; Kansas City, MO).

- Insect and mite management in greenhouses (June 19, 2015. In-Service Education: Sustainable Management of Insect and Disease Pests of Ornamental Plants in Missouri; Springfield, MO).
- Overview of reduced-risk insecticides (June 18, 2015. In-Service Education: Sustainable Management of Insect and Disease Pests of Ornamental Plants in Missouri; Springfield, MO).
- Invasive insects threatening ornamental crops in the Midwest (June 18, 2015. In-Service Education: Sustainable Management of Insect and Disease Pests of Ornamental Plants in Missouri; Springfield, MO).
- Preserving butterflies in the garden (June 13, 2015. Blueville Nursery Educational Seminar; Manhattan, KS).
- Insect update (June 11, 2015. KAA and KNLA Summer Field Day; Haysville/Belle Plaine, KS).
- Western flower thrips management in greenhouse production systems (May 19, 2015. X<sup>th</sup> International Symposium on Thysanoptera and Tospoviruses; Pacific Grove, CA).
- IPM, or “protecting plants” (May 9, 2015. Kansas City Area Butterfly Club, Idalia Society of Mid-American Lepidopterists; Prairie Village, KS).
- “Organic” methods of fungal control (April 28, 2015. Wichita Organic Garden Club; Wichita, KS).
- “Bugs” in the garden: both good and bad (April 23, 2015. FCE Spring Tea Recognition Day; Manhattan, KS).
- Impact of drought on insect populations (March 26, 2015. 39<sup>th</sup> Annual Tree City USA Recognition Event; Topeka, KS).
- The impact of systemic insecticides on pollinators (March 13, 2015. Spring Kansas Honey Producers Association Meeting; Manhattan, KS).
- Systemic insecticides and pollinators: the “real” story (February 24, 2015. Gard’N Wise Clerk Training; Dodge City, KS).
- Impact of invasive species on horticultural cropping systems (February 20, 2015. Horticultural Sciences Day, Johnson County Community College; Overland Park, KS).
- Systemic insecticides and pollinators: the “real” story (February 19, 2015. Gard’N Wise Clerk Training; Wichita, KS).
- Systemic insecticides and pollinators: the “real” story (February 17, 2015. Gard’N Wise Clerk Training; Lenexa, KS).
- Effective biological control: understanding the relationship between natural enemies and their prey (February 4, 2015. New England Grows; Boston, MA).
- Why read the label? (January 31, 2015. Spring Gardening Class; Wichita, KS).
- What’s happening to the bees? (January 31, 2015. Spring Gardening Class; Wichita, KS).
- What is all the “buzz:” systemic insecticides and pollinators (January 30, 2015. Horticultural Growers’ Short Course: Tradex, Abbotsford; British Columbia, Canada).
- Western flower thrips: is the game over? (January 29, 2015. Horticultural Growers’ Short Course: Tradex, Abbotsford; British Columbia, Canada).
- How to best manage fungus gnats (January 28, 2015. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Replacing neonicotinoid insecticides in the greenhouse (January 28, 2015. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Non-chemical ways to deal with pests [January 23, 2015. Integrated Environmental Plant Management Association of Western Canada (IEPMA) 19<sup>th</sup> Annual Conference; Kelowna, British Columbia, Canada].
- How insecticides (and miticides) work [January 22, 2015. Integrated Environmental Plant Management Association of Western Canada (IEPMA) 19<sup>th</sup> Annual Conference; Kelowna, British Columbia, Canada].
- Effective pest management in landscapes (January 21, 2015. Nebraska GREAT PLAINS Conference; Omaha, NE).

- Natural pesticides: what are these? (January 20, 2015. Nebraska GREAT PLAINS Conference; Omaha, NE).
- How to manage insect pests in rotation programs with and without neonicotinoid insecticides (January 15, 2015. BWI Grower Seminar; Buda, TX).
- New products for dealing with insect and mite pests (January 15, 2015. BWI Grower Seminar; Buda, TX).
- Wood-boring insects and Japanese beetle (January 8, 2015. Montana Green Expo; Billings, MT).
- Beneficial bugs and diseases (January 7, 2015. Montana Green Expo; Billings, MT).
- Horticulture and pest management (January 7, 2015. Montana Green Expo; Billings, MT).
- Insects and extension entomology: what's bugging you? (December 18, 2014. Vocational Agricultural Teachers Program; LeRoy, KS).
- Ornamental pests and their control plus endangered species and where are the bees? (December 15, 2014. Heartland Green Industry Expo; Overland Park, KS).
- Turf & ornamental insect update (December 2, 2014. 64<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Integrating biological control and pesticides in horticultural production systems (September 30, 2014. Plant & Food Research Institute Seminar; Lincoln, New Zealand).
- Integrating biological control and pesticides in horticultural production systems (August 29, 2014. University of Queensland Seminar; University of Queensland, Brisbane, Australia).
- Western flower thrips management in greenhouse production systems in the 21<sup>st</sup> century: what does the future hold? (August 20, 2014. 29<sup>th</sup> International Horticultural Congress; Brisbane, Queensland, Australia).
- Rose garden pests (August 12, 2014. Topeka Rose Society Meeting; Topeka, KS).
- Turf & ornamental insect control update (August 7, 2014. Kansas Turfgrass Field Day; Manhattan, KS).
- Neonicotinoids, bees, our industry, and our options plus virus vector control (August 1, 2014. PlantPeddler Variety Day; Cresco, IA).
- Systemic insecticides and bees (July 24, 2014. BWI Summer Seminar; Tulsa, OK).
- Playing Sherlock holmes: how to effectively diagnose plant problems (July 24, 2014. BWI Summer Seminar; Tulsa, OK).
- "The best of both worlds:" integrating biological control with pesticides in pest management programs—is it realistic? (July 22, 2014. Association of Education Research Greenhouse Curators Annual Meeting; Victoria, British Columbia, Canada).
- Neonicotinoids and bee health (July 14, 2014. Cultivate'14: An American Experience; Columbus, OH).
- "Buggy wars:" managing thrips resistance to insecticides (July 13, 2014. Cultivate'14: An American Experience; Columbus, OH).
- Western flower thrips [July 13, 2014. Cultivate'14: An American Experience (BioWorks Booth); Columbus, OH].
- Biologicals and pesticides: can they be used together? (July 12, 2014. Cultivate'14: An American Experience; Columbus, OH).
- Understanding systemic insecticides and how they may impact pollinators (July 9, 2014. 2014 MLNA/KNLA Border Tour and Conference; Kansas City, MO).
- Dealing with "bug" problems on roses (July 8, 2014. Wichita Rose Society Meeting; Wichita, KS).
- Organic pest control (July 8, 2014. Kansas Community Garden Conference; Manhattan, KS).
- Dealing with rose pests (June 26, 2014. Chattanooga Rose Society Meeting; Chattanooga, TN).
- Plant galls: relationship between plants and insects (June 20, 2014. Kansas Arborist Association Summer Field Day; Leawood, KS).
- Insect and mite pests of Christmas trees (June 14, 2014. Kansas Christmas Tree Growers Association Summer Meeting; Wichita, KS).
- Butterflies: an overview (May 15, 2014. Family and Community Education District Day; Topeka, KS).

- Insects: pests and beneficials (April 26, 2014. Kansas Grape Growers and Winemakers Association Workshop; Topeka, KS).
- Bugs in the home (April 12, 2014. Harvey County Home and Garden Show; Newton, KS).
- “Organic control” of insect pests in the garden (April 12, 2014. Harvey County Home and Garden Show; Newton, KS).
- Pest-update—spotted wing drosophila (April 7, 2014. Growing Growers Kansas City Market Farming Workshop; Lawrence, KS).
- Pest management in vegetable gardens (March 26, 2014. Linnaeus Teaching Garden Volunteer Training; Tulsa, OK).
- Is there really such-a-thing as an “organic” pesticide? (March 25, 2014. Tulsa Garden Center Class; Tulsa, OK).
- Systemic insecticides (March 14, 2014. Oklahoma Nursery and Landscape Association Spring Fling; Sedan, KS).
- Pesticide mixtures, adjuvants, and systemic insecticides and pollinators (February 26, 2014. Gard’N-Wise Clerk Training; Dodge City, KS).
- Pest diagnosis and management workshop (February 22, 2014. Johnson County Community College Horticultural Sciences Day; Overland Park, KS).
- Pest management in urban horticultural systems (February 21, 2014. Johnson County Community College Horticultural Sciences Day; Overland Park, KS).
- Pesticide mixtures, adjuvants, and systemic insecticides and pollinators (February 20, 2014. Gard’N-Wise Clerk Training; Wichita, KS).
- Pesticide mixtures, adjuvants, and systemic insecticides and pollinators (February 18, 2014. Gard’N-Wise Clerk Training; Overland Park, KS).
- Insects—is there really such a thing as an organic pesticide (February 15, 2014. 2014 Kansas Garden Show; Topeka, KS).
- What’s new in pests and control (February 8, 2014. Central Kansas Market Vegetable Growers Workshop; Wichita, KS).
- Understanding pesticides: organic or not? (January 29, 2014. RetailWorks Conference; Manhattan, KS).
- “Hard to resist:” understanding issues associated with resistance in insect populations (January 28, 2014. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Don’t get “broad-sided” by broad mites (January 28, 2014. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- “Don’t get sucked-up:” understanding systemic insecticides (January 24, 2014. Idaho Horticulture Expo; Boise, ID).
- Pesticides and biological controls: can they be used together? (January 24, 2014. Idaho Horticulture Expo; Boise, ID).
- Effective pest management in landscapes: what does it mean? (January 23, 2014. Garden Center Symposium Midwest Perennial Conference; Waukesha, WI).
- Natural and organic pesticides—what are they? (January 22, 2014. Garden Center Symposium Midwest Perennial Conference; Waukesha, WI).
- Ornamental pests and their control (December 16, 2013. Heartland Green Industry Expo; Overland Park, KS)
- Biocontrol for ornamental spring crops in greenhouses workshop (December 12, 2013. Michigan Greenhouse Growers EXPO—in conjunction with the Great Lakes EXPO; Grand Rapids, MI).
- How turfgrass and ornamental pesticides work (December 6, 2013. Kansas Pest Control Association Winter Conference; Overland Park, KS).
- Top turfgrass insects and treatments (December 6, 2013. Kansas Pest Control Association Winter Conference; Overland Park, KS).
- Arthropod vectors of diseases (December 3, 2013. 63<sup>rd</sup> Annual Kansas Turfgrass Conference; Topeka, KS).

- Scales for dummies (December 3, 2013. 63<sup>rd</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Thrips management: What does the future hold? (November 7, 2013. Penn State Extension Western PA Fall Greenhouse Meeting; Wexford, PA).
- Insecticidal modes of action (November 7, 2013. Penn State Extension Western PA Fall Greenhouse Meeting; Wexford, PA).
- Insect growth regulators: discovering the fountain of youth (October 28, 2013. Kansas Greenhouse Growers Association Educational Conference; Manhattan, KS).
- Bugs in bagged mixes—report on latest research results (October 22, 2013. SunGro Horticulture Seminar; Greenville, SC).
- Identification and management of greenhouse insect and mite pests (October 18, 2013. Seminar For Kansas High School Horticulture Teachers; Manhattan, KS).
- Entomology and Hollywood: A history of the 1950's "big-bug" science fiction movies (October 7, 2013. Department of Entomology Seminar, Kansas State University; Manhattan, KS).
- Tree insects (October 7, 2013. 40<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Systemic pesticides 101 (September 20, 2013. Oklahoma Nursery and Landscape Association Annual Convention and Tradeshow; Shawnee, OK).
- Balance of nature: Beneficial insects in the garden (September 10, 2013. International Master Gardener's Conference—Alaska Cruise on Holland America Line; September 7 through 14, 2013).
- Balance of nature: Beneficial insects in the garden (September 8, 2013. International Master Gardener's Conference—Alaska Cruise on Holland America Line; September 7 through 14, 2013).
- Entomology and hollywood: history of the 1950's science fiction "big bug" movies (September 7, 2013. International Master Gardener's Conference—Alaska Cruise on Holland America Line; September 7 through 14, 2013). Keynote Speaker.
- Get the low-down on pesticide mixtures (August 28, 2013. BFG Grower & Garden Center Expo; Minneapolis, MN).
- Bug games: Insect and mite pest quiz (August 28, 2013. BFG Grower & Garden Center Expo; Minneapolis, MN).
- Scale insects (August 20, 2013. Horticultural Inspection Society-Central Chapter: Multi-State Inspector Training; Ottawa, KS).
- Turf and ornamental insect control (August 1, 2013. Turf and Ornamentals Field Day; Haysville, KS).
- Don't get "sucked up" by systemic pesticides: Understanding the benefits and limitations of systemic pesticides (July 25, 2013. BWI Tulsa Summer Seminar; Tulsa, OK).
- Understanding systemic insecticides (July 23, 2013. Association of Education and Research Greenhouse Curators Annual Meeting; Fargo, ND).
- Don't get "bored" by wood-boring insects: insect borers in nursery production (July 18, 2013. NurseryWorks; Manhattan, KS).
- New and effective pesticides for insect and mite control (July 15, 2013. Ohio Florists' Association Short Course; Columbus, OH).
- Rescue programs for greenhouse growers (July 13, 2013. Ohio Florists' Association Short Course; Columbus, OH).
- Troubleshooting poinsettia problems workshop (July 13, 2013. Ohio Florists' Association Short Course; Columbus, OH).
- Organic or not: what is an organic pesticide? (July 8, 2013. Kansas Community Garden Conference; Manhattan, KS).
- Issues associated with insect pests of Kansas (June 28, 2013. Kansas Arborists Association Summer Field Day; Leawood, KS).
- Don't get "sucked-up:" understanding systemic pesticides (May 14, 2013. Wichita Rose Society Meeting; Wichita, KS).

- Biological control: what is it and is it effective? (March 15, 2013. Missouri Botanical Garden Training Session; St. Louis, MO).
- Insect (and mite) management in flower beds (March 11, 2013. Commercial Flower Beds—Planting and Maintenance Program; Wichita, KS).
- “Natural” pesticides: what are these? (February 28, 2013. Gard’N-Wise Clerk Training; Lenexa, KS).
- Biological control: what is it and is it effective? (February 26, 2013. California Polytechnic State University—San Luis Obispo Horticulture Club Meeting; San Luis Obispo, CA).
- “Natural” pesticides: what are these? (February 19, 2013. Gard’N-Wise Clerk Training; Wichita, KS).
- Emerald ash borer: don’t get bored by emerald ash borer (February 16, 2013. Kansas Garden Show; Topeka, KS).
- Sustainable pest management (February 15, 2013. Johnson County Community College Horticultural Sciences Day; Overland Park, KS).
- Primary pests of Maryland (February 14, 2013. Chesapeake Green 2013: An Annual Horticulture Symposium; Linthicum, MD).
- Systemic controls (February 13, 2013. Eastern Shore Pest Management Conference; Salisbury, MD).
- Top insect pests of Maryland and the Eastern Shore (February 13, 2013. Eastern Shore Pest Management Conference; Salisbury, MD).
- How to successfully manage mites in greenhouse production systems (January 24, 2013. Penn State Extension Southeast Greenhouse Growers Day; Shady Maple, East Earl, PA).
- “Bugs no more:” how to effectively deal with aphids and thrips (January 24, 2013. Penn State Extension Southeast Greenhouse Growers Day; Shady Maple, East Earl, PA).
- Tree borers of Kansas and their dynamics (January 18, 2013. 58<sup>th</sup> Annual Kansas Arborist Association Shade Tree Conference; Topeka, KS).
- What a borer! (December 5, 2012. 62<sup>nd</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Emerald ash borer—what to do? (December 5, 2012. 62<sup>nd</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Insect training—understanding Scales (December 4, 2012. Kansas Department of Agriculture Plant Protection and Weed Control Staff Meeting Agenda; Topeka, KS).
- How do turfgrass pesticides work (November 30, 2012. Missouri Pest Management Association and Kansas Pest Control Association Annual Winter Conference; Kansas City, MO).
- Systemic insecticides: how do they kill bugs? (November 8, 2012. Northeast Greenhouse Conference and Expo; Worcester, MA).
- Insect growth regulators: how to effectively use these pest control materials (November 8, 2012. Northeast Greenhouse Conference and Expo; Worcester, MA).
- “Getting sucked-up:” understanding systemic pesticides (October 25, 2012. Kansas Greenhouse Growers Association Educational Conference; Manhattan, KS).
- Diagnosing infestations of emerald ash borer and what can be done (October 16, 2012. K-State Research and Extension Conference; Manhattan, KS).
- Rose rosette disease up-date (October 9, 2012. Wichita Rose Society Meeting; Wichita, KS).
- Tree insects (October 8, 2012. 39<sup>th</sup> Kansas Arborists Association Arborists Training Course; Manhattan, KS).
- What effects’ the efficacy of insecticides? (October 3, 2012. Indiana Flower Growers Association 30<sup>th</sup> Annual Meeting; West Lafayette, IN).
- Dealing with western flower thrips in the future (October 3, 2012. Indiana Flower Growers Association 30<sup>th</sup> Annual Meeting; West Lafayette, IN).
- Pesticide mixtures: what you need to know (September 27, 2012. Syngenta Lectures in Bloom; Las Vegas, NV).
- Reading plant leaves: basics of crop diagnostics (September 13, 2012. Carlin Horticultural Supplies BuyerFest Trade Show; West Bend, WI).

- A dynamic duo: interactions between insects and diseases (September 13, 2012. Carlin Horticultural Supplies BuyerFest Trade Show; West Bend, WI).
- The challenge of mites & thrips (September 12, 2012. Ohio Florists' Association Perennial Production & Retail Conference; Grand Rapids, MI).
- New options in traditional insect & disease management (September 11, 2012. Ohio Florists' Association Perennial Production & Retail Conference; Grand Rapids, MI).
- Perennial production workshop (September 10, 2012. Ohio Florists' Association Perennial Production & Retail Conference; Grand Rapids, MI).
- Dealing with insect and mite pests in nursery production systems (August 27, 2012. Bailey Nursery Visit; Newport, MN).
- Thrips-B-Gone: management of western flower thrips (August 24, 2012. Farwest Show; Portland, OR).
- Pesticides & biological control: are these two strategies compatible? (August 23, 2012. Farwest Show; Portland, OR).
- A dynamic duo: Interactions between insects and diseases (August 16, 2012. Carlin Horticultural Supplies BuyerFest Trade Show; St. Paul, MN).
- Reading plant leaves: basics of crop diagnostics (August 16, 2012. Carlin Horticultural Supplies BuyerFest Trade Show; St. Paul, MN).
- Winning the war against thrips (August 3, 2012. PlantPeddlar Variety Day; Cresco, IA). Keynote Speaker.
- Turf & ornamental insect control update (August 2, 2012. Kansas Turfgrass Field Day; Manhattan, KS).
- Pesticide mixtures—how not to get mixed up (July 24, 2012. Association of Education and Research Greenhouse Curators Annual Meeting; Toronto, Canada).
- Diagnosis—how to identify and scout for insect and mite pests in the greenhouse & nursery (July 19, 2012. BWI Tulsa Summer Seminar; Broken Arrow, OK).
- Reading geranium leaves: crop diagnostics workshop (July 17, 2012. Ohio Florists' Association Short Course; Columbus, OH).
- A review of greenhouse sanitation protocols (July 16, 2012. Ohio Florists' Association Short Course; Columbus, OH).
- Mealybug & scale management: dealing with these critters (July 14, 2012. Ohio Florists' Association Short Course; Columbus, OH).
- Systemic insecticides: “whole lotta sucking going on.” (June 28, 2012. Chattanooga Rose Society Meeting; Chattanooga, TN).
- “Climate change” and arthropod pests (June 14, 2012. Kansas State University, Horticulture June Program Focus Team Training; Wichita, KS).
- Rose pest management (June 12, 2012. Topeka Rose Society Meeting; Topeka, KS).
- De-bugging problems on roses (May 10, 2012. Johnson County Rose Society; Prairie Village, KS).
- Pests of orchids (April 27, 2012. American Orchid Society and Southwest Regional Orchid Growers Association Spring Meeting; Wichita, KS).
- Insects in the vegetable garden (April 3, 2012. Master Gardeners of Greater Kansas City Gardeners' Gatherings; Kansas City, MO).
- Integration strategies for insect management (March 28, 2012. 7<sup>th</sup> International IPM Symposium—Integrating Biological and Conventional Pest and Disease Management Strategies in Greenhouse and Outdoor Horticulture; Memphis, TN).
- Systemic pesticides: whole lotta “sucking” going on (March 1, 2012. Gard'N-Wise Clerk Training; Dodge City, KS).
- Systemic pesticides: whole lotta “sucking” going on (February 28, 2012. Gard'N-Wise Clerk Training; Wichita, KS).
- Systemic pesticides: whole lotta “sucking” going on (February 23, 2012. Gard'N-Wise Clerk Training; Lenexa, KS).
- How to effectively deal with garden pests (February 19, 2012. Kansas Garden Show; Topeka, KS).



- New biopesticides & insect control (February 18, 2012. Central Kansas Market Vegetable Growers & Tomato Grafting Workshop; Wichita, KS).
- Bug-B-Gone: pesticides and how they kill insect and mite pests (February 17, 2012. RetailWorks Spring Training for Garden Centers; Topeka, KS).
- How insecticides work (February 16, 2012. Johnson County Community College Horticultural Sciences Field Day; Overland Park, KS).
- Western flower thrips: have we reached an impasse? (February 8, 2012. ProGreen Expo; Denver, CO).
- Plant galls: the relationship between plants and insects (February 2, 2012. 66<sup>th</sup> Annual Midwestern Chapter International Society of Arboriculture Conference & Trade Show; Overland Park, KS).
- Western flower thrips management: is the game over? (February 1, 2012. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Fundamentals of tank mixing (January 31, 2012. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Don't get weighed down by scales (January 11, 2012. 57<sup>th</sup> Annual Shade Tree Conference; Topeka, KS).
- Systemic insecticides: how do they kill pests? (January 9, 2012. National Green Centre Show; Kansas City, MO).
- Organic pesticides and biopesticides (January 7, 2012. Great Plains Growers Conference; St. Joseph, MO).
- Managing western flower thrips: have we reached an impasse? (December 7, 2011. Michigan Greenhouse Growers EXPO; Grand Rapids, MI).
- Systemic insecticides (December 6, 2011. 61<sup>st</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Dealing with spider mites (December 6, 2011. 61<sup>st</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- How do turf products work? (December 1, 2011. 2011 Kansas Pest Control Association Winter Conference; Kansas City, KS).
- Do western flower thrips have a sweet tooth? (October 27, 2011. 2011 Kansas Greenhouse Growers Association Educational Conference; Manhattan, KS).
- Understanding pesticide modes of action (October 27, 2011. 2011 Kansas Greenhouse Growers Association Educational Conference; Manhattan, KS).
- Scale insects for the Central Region (October 18, 2011. Horticultural Inspection Society—Central Chapter 41<sup>st</sup> Annual Meeting; Rapid City, SD).
- Management considerations for insect and mite pests in the landscape (October 5, 2011. Pesticide Applicator Recertification Training for Category 3A—Ornamentals and Trees; Shawnee, KS).
- Cleanliness is next to...reduced loss (September 14, 2011. OFA Plug and Cutting Conference; San Jose, CA).
- Tank mix “cookbook” (September 13, 2011. OFA Plug and Cutting Conference; San Jose, CA).
- Recognizing the signs and symptoms of disorders, diseases, and bugs (September 13, 2011. OFA Plug and Cutting Conference; San Jose, CA).
- Tree insects (October 3, 2011. 38<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Dealing with insect and mite pests “organically” (September 10, 2011. 2011 Market Gardening Workshop; Kearney, MO).
- Conquering western flower thrips (August 30, 2011. 2011 BFG Hort Expo; Minneapolis, MN).
- Mixing pesticides for top performance (August 30, 2011. 2011 BFG Hort Expo; Minneapolis, MN).
- Reduced-risk insecticides and biopesticides for field and high tunnel vegetable production (August 23, 2011. In-Service Education Vegetable IPM: Fostering Adoption of IPM by Vegetable Farmers in Missouri; Jefferson City, MO).
- Everything you ever wanted to know about fungus gnats but were afraid to ask (August 11, 2011. “Ask The Advisor”; San Marcos, CA).
- Resistance mitigation (July 26, 2011. Association of Education and Research Greenhouse Curators Annual Meeting; Portland, OR).
- New pest control materials and pest management (July 22, 2011. BWI Springfield Summer Grower Seminar; Springfield, MO).

- New pest control materials and pest management (July 21, 2011. BWI Tulsa Summer Seminar; Broken Arrow, OK).
- New pest control materials and pest management (July 20, 2011. BWI 3<sup>rd</sup> Annual Kansas City Summer Grower Seminar; Olathe, KS).
- New pest control materials and pest management (July 19, 2011. BWI 3<sup>rd</sup> Annual Summer Grower Seminar; Council Grove, KS).
- Destructive insect and mite pests of vegetables, annuals, and perennials (July 14, 2011. Ward Meade Garden Club; Topeka, KS).
- Recognizing the signs and symptoms of insect and disease activity (July 12, 2011. Ohio Florists' Association Short Course; Columbus, OH).
- Diagnostics workshop: a systematic approach using petunias as a model (July 10, 2011. Ohio Florists' Association Short Course; Columbus, OH).
- "The days of bugs and roses:" common rose pest problems (May 14, 2011. Kansas City Rose Society Meeting; Loose Park Garden Center, Kansas City, MO).
- Dealing with greenhouse insect and mite pests (March 29, 2011. Nurserymen's Exchange Seminar; Half Moon Bay, CA).
- Dealing with insects and mites using softer pesticides (March 6, 2011. Wichita Garden Show; Wichita, KS).
- Growing orchids (February 26, 2011. 2011 Manhattan Area Garden Show; Manhattan, KS).
- Management of common insect and mite pests (February 22, 2011. 2011 Gard'N-Wise Clerk Training; Lenexa, KS).
- Management of common insect and mite pests (February 17, 2011. 2011 Gard'N-Wise Clerk Training; Wichita, KS).
- Up-date on new pest control materials and biological controls (February 16, 2011. 2011 Indiana Flower Growers Association Bedding Plant Conference; Westfield, IN).
- Management of common insect and mite pests (February 15, 2011. 2011 Gard'N-Wise Clerk Training; Dodge City, KS).
- Identification and management of greenhouse insect and mite pests (January 29, 2011. Agriculture Symposium; Manhattan, KS).
- Pest control materials: what are the best application methods (January 27, 2011. ReForest Urban America: The Green Symposium; Overland Park, KS).
- Tree insects: management of Christmas tree pests (January 22, 2011. 2011 Winter Meeting Kansas Christmas Tree Growers Association; Manhattan, KS).
- Entomology Update (January 14, 2011. Kansas Annual Shade Tree Conference; Topeka, KS).
- Chewers: dealing with caterpillar pests in landscapes (December 7, 2010. 60<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Get them buggers: implementing pest management strategies to deal with insect and mite pests (November 9, 2010. Association of Specialty Cut Flower Growers National Conference & Trade Show; Tulsa, OK).
- Bug-zilla: problem pests and why they are so difficult to control (November 4, 2010. Northeast Greenhouse Conference and Expo; Worcester, MA).
- Shaking but not stirred—understanding pesticide cocktails (November 4, 2010. Northeast Greenhouse Conference and Expo; Worcester, MA).
- "Bugs-No-More:" up-date on dealing with insect and mite pests of greenhouse-grown crops (October 28, 2010. Kansas Greenhouse Growers Association Educational Conference; Manhattan, KS).
- Research conducted with dinotefuran [Safari] (October 19, 2010. PBI Gordon National Sales Dinotefuran Meeting; Kansas City, MO).
- Get the most out of pesticide mixtures (October 13, 2010. Commercial Flower Growers of Wisconsin Fall Greenhouse Conference; Denmark, WI).
- Biological control of insects and mites (October 13, 2010. Commercial Flower Growers of Wisconsin Fall Greenhouse Conference; Denmark, WI).

- Insect and mite pests of trees (October 11, 2010. 37<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Effective insect & mite management (September 29, 2010. OFA Disease, Insect & Plant Growth Management Conference; St. Louis, MO).
- Implementing & expanding an effective disease & insect bio-control program (September 29, 2010. OFA Disease, Insect & Plant Growth Management Conference; St. Louis, MO).
- Insects, mites & signs of feeding injury (September 28, 2010. OFA Disease, Insect & Plant Growth Management Conference; St. Louis, MO).
- Pesticide overuse and resistance (September 21, 2010. 17<sup>th</sup> Ornamental Workshop on Diseases and Pests Entomology Program: Kanuga Conference Center; Hendersonville, NC).
- Biological control in a greenhouse environment (September 1, 2010. Phipps Conservatory and Botanical Gardens Pesticide Update Training; Pittsburgh, PA).
- Understanding how systemic pest control materials kill insect pests (August 27, 2010. FarWest Show; Portland, OR).
- Tank-mixing pest control materials (August 26, 2010. FarWest Show; Portland, OR).
- Turf insect control update (August 5, 2010. Kansas Turfgrass Field Day; Manhattan, KS).
- Bug-O-Mania: update on how to deal with insect and mite pests (July 28, 2010. Association of Education and Research Greenhouse Curators Annual Meeting; Urbana-Champaign, IL).
- Using beneficial nematodes to control western flower thrips (July 11, 2010. Ohio Florists' Association Short Course; Columbus, OH).
- Cost effective disease & insect control workshop (July 10, 2010. Ohio Florists' Association Short Course; Columbus, OH).
- “Bug-Me-No-More”—dealing with rose pests in a ‘sustainable’ world (June 24, 2010. Chattanooga Rose Society Meeting; Chattanooga, TN).
- Understanding “bugs” in our environments (June 19, 2010. Powell Gardens Educational Program; Kingsville, MO).
- Don't get caught with your “plants down:” dealing with insect and mite pests in the garden (June 19, 2010. Garden Center Association of Greater Kansas City Program; Kansas City, MO).
- Enhancing and preserving the abundance of natural enemies in landscapes (June 2, 2010. American Public Gardens Association Conference—Innovations in pest management: Bringing the pest that public gardens, extension, and industry have...home. Atlanta, GA).
- Insect and mite pest identification workshop (May 18, 2010. Jolly Farmer Products, Inc., Northhamptom; New Brunswick, Canada).
- Dealing with insect and mite pests “organically” (April 27, 2010. Wichita Organic Garden Club; Wichita, KS).
- Bug-No-More: managing landscape insect and mite pests (April 10, 2010. Harvey County Home & Garden Show; Newton, KS).
- Get them critters: identification & management of household pests (April 10, 2010. Harvey County Home & Garden Show; Newton, KS).
- What's going on in the bug world (March 25, 2010. Tree City USA Recognition Event; El Dorado, KS).
- Identification and “control” of insect and mite pests of orchids (March 21, 2010. Kansas Orchid Society Meeting; Wichita, KS).
- Basics of biological controls and beneficials (March 4, 2010. Cantigny Professional Grower Conference; Wheaton, IL).
- Alternative pest control (February 26, 2010. 26<sup>th</sup> Annual Pest & Production Management Conference; Orlando, FL).
- Understanding systemic insecticides & how they kill insect pests (February 24, 2010. Spring 2010 NETWORKSHOP; Lenexa, KS).

- Pest management: common insect and mite pests (February 23, 2010. Gard’N-Wise Clerk Training; Lenexa, KS).
- Management of greenhouse insect and mite pests (February 22, 2010. Arnold’s Greenhouse Continuing Education Class; LeRoy, KS).
- Pest management: common insect and mite pests (February 16, 2010. Gard’N-Wise Clerk Training, Dodge City; KS).
- Pest-B-Gone: why it is important to understand biology & life cycle when dealing with arthropod pests (February 9, 2010. Nursery Grower Day; Quebec, Canada).
- Why pesticides fail to regulate insect and mite pest populations (February 9, 2010. Nursery Grower Day; Quebec, Canada).
- Old (gone) & new insecticides (February 6, 2010. Central Kansas Vegetable Growers Workshop; Wichita, KS).
- Integrated pest management materials for organic production (February 5, 2010. Missouri Organic Association Annual Conference; Columbia, MO).
- Resistance management and pesticide rotations (February 4, 2010. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Chew away: dealing with caterpillars and grasshoppers (February 4, 2010. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Get them suckers: aphid and whitefly management (February 3, 2010. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Practices you need to know to effectively deal with mites (February 3, 2010. Mid-Atlantic Fruit & Vegetable Convention; Hershey, PA).
- Whitefly control and sustainability (January 21, 2010. Romeo Packing Comp., Production Horticulture Seminar; Carpinteria, CA).
- Whitefly control and sustainability (January 19, 2010. Romeo Packing Comp., Production Horticulture Seminar; Watsonville, CA).
- Understanding how systemic insecticides work (January 15, 2010. Shade Tree Conference; Topeka, KS).
- Organic insect pest control (January 8, 2010. Great Plains Vegetable Growers Conference; St. Joseph, MO).
- Up-date on new conventional insecticides for vegetables (January 8, 2010. Great Plains Vegetable Growers Conference; St. Joseph, MO).
- Understanding systemic insecticides and how they kill insect pests (January 4, 2010. 120<sup>th</sup> WESTERN Annual Meeting and Trade Show; Overland Park KS).
- Using pesticides and natural enemies in the greenhouse (December 9, 2009. Michigan Greenhouse Growers Expo Education Program; Grand Rapids, MI).
- Turf and ornamental insects (December 8, 2009. 59<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Focus on plant pests (October 21, 2009. Annual Conference—Horticulture Program Focus Team County Agent Horticulture Training; Manhattan, KS).
- “Buggy wars”—an update on extension and research happenings. What does an ornamental entomologist do at a land-grant institution? (October 2, 2009. Department of Entomology Promotion Seminar: Kansas State University; Manhattan, KS).
- Tree insects (October 5, 2009. 36<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Pesticides and natural enemies: are they compatible? (September 30, 2009. Lectures in Bloom—Syngenta Professional Products; Las Vegas, NV).
- Biological control for perennials: what does it take to succeed? (September 21, 2009. OFA Perennial Production Conference; Buffalo, NY).
- Perennial insects: identification & management (September 21, 2009. OFA Perennial Production Conference; Buffalo, NY).
- Perennial production workshop (September 20, 2009. OFA Perennial Production Conference; Buffalo, NY).

- Western flower thrips: have we reached an impasse? (September 11, 2009. 2009 Flowers Canada Pest Management Conference; Niagara Falls, Ontario, Canada).
- Bug wars—managing mealybugs & whitefly in greenhouses (September 11, 2009. 2009 Flowers Canada Pest Management Conference; Niagara Falls, Ontario, Canada).
- Turf & ornamental insects (August 6, 2009. Turf & Ornamentals Field Day; Wichita, KS).
- Bug-eat-bug world: what does it take to succeed with biological control? (July 29, 2009. Kansas Greenhouse Growers Association; Olathe, KS).
- Biological control of insect and mite pests (July 23, 2009. Perennial Plant Symposium; St. Louis, MO).
- Bug-me-know-more: insect and mite pest management strategies for perennials (July 21, 2009. Perennial Plant Symposium; St. Louis, MO).
- Insect and mite management (July 14, 2009. Ohio Florists Association Short Course; Columbus, OH).
- Pest solutions (July 13, 2009. Ohio Florists Association Short Course; Columbus, OH).
- Western flower thrips: have we reached an impasse? (July 13, 2009. Ohio Florists Association Short Course; Columbus, OH).
- Effective integration of biological control agents into your pest management program (July 11, 2009. Ohio Florists Association Short Course; Columbus, OH).
- Scouting: why should you do it? (July 11, 2009. Ohio Florists Association Short Course; Columbus, OH).
- Dealing with insect and mite pests “organically” (April 11, 2009. 2009 Market Gardening Workshop: Growing Growers of Kansas City; Independence, MO).
- What’s going on in the bug world? (March 25, 2009. Tree City USA Recognition Event; Manhattan, KS).
- Bugs: the good, the bad, & the ugly (March 14, 2009. A Gathering of Gardeners: Hutchinson Horticulture Club; Hutchinson, KS).
- Pesticide resistance (February 25, 2009. 2009 27<sup>th</sup> Annual Gateway Green Industry Conference; Collinsville, IL).
- Dealing with arthropod pests organically (February 25, 2009. 2009 27<sup>th</sup> Annual Gateway Green Industry Conference; Collinsville, IL).
- Disease identification and management (February 20, 2009. Cantigny Grower Conference: Training for High Performance and Quality Crops; Wheaton, IL).
- Everything you wanted to know about systemic insecticides—but were afraid to ask (February 12, 2009. Wisconsin Nursery Association’s 2009 Winter Workshop; Waukesha, WI).
- Fundamentals of tank-mixing and pesticide resistance (February 12, 2009. Wisconsin Nursery Association’s 2009 Winter Workshop; Waukesha, WI).
- Modes of action of insecticides (January 27, 2009. Ohio State University Nursery Short Course; Columbus, OH).
- Scouting a crop quickly & accurately (January 27, 2009. Ohio State University Nursery Short Course; Columbus, OH).
- Fungus gnats and shore flies (January 26, 2009. Ohio State University Nursery Short Course; Columbus, OH).
- Thrips control (January 22, 2009. 2009 Capital Region Greenhouse Grower Meeting; Shady Maple, PA).
- Managing pesticide resistance (January 22, 2009. 2009 Capital Region Greenhouse Grower Meeting; Shady Maple, PA).
- New pesticide developments and understanding how pesticides kill arthropod pests (January 20, 2009. Spring Training; Topeka, KS).
- How to avoid getting “bored” to death: an update on the Emerald ash borer and other wood-boring insects (January 16, 2009. Kansas Arborists Association Shade Tree Conference; Topeka, KS).
- What you need to know about tank-mixing insecticides (January 13, 2009. Indiana Green Expo; Indianapolis, IN).
- Biological controls (January 12, 2009. Indiana Green Expo; Indianapolis, IN).

- Colony collapse disorder update (January 9, 2009. Great Plains Vegetable Growers Conference; St. Joseph, MO).
- Integrated pest management for bedding plants (January 9, 2009. Great Plains Vegetable Growers Conference; St. Joseph, MO).
- Suppliers of biological control organisms (January 7, 2009. Illinois Specialty Crops and Agritourism Conference and Trade Show; Springfield, IL).
- “Most likely to succeed” biological control organisms for insect management in greenhouses and high tunnels (January 7, 2009. Illinois Specialty Crops and Agritourism Conference and Trade Show; Springfield, IL).
- Emerald ash borer & wood-boring insects (January 6, 2009. Western 119<sup>th</sup> Annual Meeting and Trade Show; Overland Park, KS).
- Pest/insect control (December 12, 2008. Costa Farms Growers Summit; Miami, FL).
- Management of vegetable garden insect pests (December 9, 2008. Farmers Market & Large Scale Vegetable Production Meeting; Clay Center, KS).
- Panel discussion (December 9, 2008. Tree Injection Seminar; El Dorado, KS).
- Insect management for market farmers (December 1, 2008. Market Farmers Class; Wichita, KS).
- Management strategies for dealing with fungus gnats and shore flies (November 7, 2008. New England Greenhouse Conference & Expo; Worcester, MA).
- Pest management using organic products (November 5, 2008. New England Greenhouse Conference & Expo; Worcester, MA).
- Using biological control agents (November 5, 2008. New England Greenhouse Conference & Expo; Worcester, MA).
- The role of insect monitoring and insect biological control programs (October 28, 2008. Annual Meeting of the Association of Natural Bio-Control Producers; Stoneville, MS).
- Tree insects (October 6, 2008. 35<sup>th</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Modes of action of insecticides (October 5, 2008. Tenarky District Convention—Associated with the Nashville Rose Society; Nashville, TN).
- Greenhouse sanitation (September 30, 2008. Plug & Cutting Conference; Orlando, FL).
- Insect identification and control Parts 1 and 2 (September 30, 2008. Plug & Cutting Conference; Orlando, FL).
- Vectors (September 23, 2008. 16<sup>th</sup> Ornamental Workshop on Diseases and Pests; Hendersonville, NC).
- Tank mixing pesticides—what are the benefits & concerns? (September 10, 2008. Carlin BuyerFest; West Bend, WI).
- Public enemy #1: western flower thrips (September 9, 2008. Carlin BuyerFest; West Bend, WI).
- Don’t get mixed-up about tank-mixing (August 19, 2008. BFG Hort Expo; Hoffman Estates, IL).
- Managing arthropod pests “organically” (August 17, 2008. Market Garden Workshop; St. Joseph, MO).
- Turf insect control update (August 7, 2008. Kansas Turfgrass Field Day; Manhattan, KS).
- Emerald ash borer and prospects of the pest in KS, MO, IA, and NE (August 6, 2008. Healthy Lawns, Healthy Business Summit; Overland Park, KS).
- Dealing with mealybugs and scales in interior plantscapes (July 29, 2008. Association of Education and Research Greenhouse Curators Annual Meeting; Lubbock, TX).
- Thrips—invincible? Understanding your enemy (July 24, 2008. Kansas Greenhouse Growers Association and K-State Bedding Plant Field Trials; Olathe, KS).
- Know and control Part I: whiteflies, thrips, and mealybugs (July 15, 2008. Ohio Florists’ Association Short Course; Columbus, OH).
- And the survey says Part I: summary of insecticide trials against major pests (July 12, 2008. Ohio Florists’ Association Short Course; Columbus, OH).
- Pesticide resistance and your bottom line (July 12, 2008. Ohio Florists’ Association Short Course; Columbus, OH).

- Insect update (June 20, 2008. Kansas Arborists Association Summer Field Day; Haysville/Belle Plaine, KS).
- Forest pests (June 5, 2008. Walnut Council Field Day; Emporia, KS).
- Rose pests—identification and treatment (June 3, 2008. Nashville Rose Society; Nashville, TN).
- BUGOLOGY: research in ornamental entomology (April 25, 2008. Department of Entomology Seminar; Kansas State University, Manhattan, KS).
- Pest-B-Gone: dealing with bugs (April 19, 2008. Harvey County Home and Garden Show; Newton, KS).
- Greenhouse arthropod management: what does it take? (April 10, 2008. Department of Plant Pathology Seminar; Kansas State University, Manhattan, KS).
- Ash-B-Gone (March 26, 2008. Tree City USA Recognition Event; Manhattan, KS).
- Common turf and landscape insects and advances in their management and control (March 20, 2008. Spring Grounds Maintenance Workshop; Lawrence, KS).
- Common turf and landscape insects and advances in their management and control (March 19, 2008. Spring Grounds Maintenance Workshop; Salina, KS).
- Biological control of insect and mite pests (March 11, 2008. Praire Roots Garden Club; Manhattan, KS).
- Fundamentals of tank mixtures (March 1, 2008. 24<sup>th</sup> Society of American Florists Annual Conference on Pest and Disease Management in Ornamentals; Atlanta, GA).
- Plant-essential oils: are they viable pest control materials? (February 28, 2008. 24<sup>th</sup> Society of American Florists Annual Conference on Pest and Disease Management in Ornamentals; Atlanta, GA).
- Ash-B-Gone: an update on emerald ash borer (February 21, 2008. Spring Networkshop; Lenexa, KS).
- How insecticides and miticides work (February 21, 2008. Gard’N’Wise Clerk Training; Wichita, KS).
- How insecticides and miticides work (February 19, 2008. Gard’N’Wise Clerk Training; Dodge City, KS).
- Arthropod identification and management (February 15, 2008. Cantigny Grower Conference: Training for High Performance and Quality Crops; Wheaton, IL).
- Organic and natural pest control (January 31, 2008. Farmer’s Market Vendor Workshop; Newton, KS).
- All you ever wanted to know about killing bugs (January 23, 2008. Spring Training; Topeka, KS).
- Western flower thrips: have we reached an impasse? (January 17, 2008. Green & Growin’ Show; Greensboro, NC).
- Getting tank mixes right (January 17, 2008. Green & Growin’ Show; Greensboro, NC).
- High and low impact and organic pest control materials for vegetables and cut flowers (January 12, 2008. Great Plains Vegetable Growers Conference; St. Joseph, MO).
- Insect pest update (January 11, 2008. Kansas Arborists Association 53<sup>rd</sup> Annual Shade Tree Conference; Topeka, KS).
- Integrated pest management (December 18, 2007. Heartland Green Industry Expo; Overland Park, KS).
- Pest management for the green industry: how viable are plant-derived essential oils as pest control materials? (November 27, 2007. Annual Research/Extension Update; Manhattan, KS).
- Sustainable pest management: what does it mean? (November 13, 2007. Managing Landscapes Organically; Ronkonkoma, NY).
- What’s up with colony collapse disorder? (November 8, 2007. Kansas Fruit Growers Association Fall Field Day; Grantville, KS).
- Insects of turf and ornamentals (November 7, 2007. Pesticide Recertification Workshop; Wichita, KS).
- Fungus gnat research and pest management (November 6, 2007. Young Plant Research Center Open House; Gainesville, FL).
- The do’s and don’t of tank mixing (October 25, 2007. Kansas Greenhouse Grower Association Educational Meeting; Topeka, KS).
- Management of insect and mite pests in the landscape (October 24, 2007. Pesticide Applicator Recertification Training for Category 3A; Olathe, KS).
- Using chemicals compatible with beneficials in conservatories and small production greenhouses (October 13, 2007. Association of Zoological Horticulture, Zoo Horticulture Certification Program—Integrated Pest Management Course; Tulsa, OK) [Invited Presentation].

- Dealing with ornamental insect and mite pests (October 8, 2007. 34<sup>th</sup> Kansas Arborists Association Arborists Training Course; Manhattan, KS).
- Getting the low-down on bugs: tank-mixing and what's new (September 19, 2007. BWI Expo; Shreveport, LA).
- Scouting the crop quickly and accurately (September 11, 2007. GrowerTalks Greenhouse Experience Conference; Cleveland, OH).
- Sanitation: your most important fundamental pest management strategy (September 10, 2007. GrowerTalks Greenhouse Experience Conference; Cleveland, OH).
- Thrips: the ultimate pest (September 10, 2007. GrowerTalks Greenhouse Experience Conference; Cleveland, OH).
- Fungus gnats and shoreflies (September 10, 2007. GrowerTalks Greenhouse Experience Conference; Cleveland, OH).
- Don't get "stirred" by tank mixing (August 22, 2007. MDM/BFG Midwestern Hort Expo; Minneapolis, MN).
- Crop culture and sanitation—reduce problems without chemicals (August 22, 2007. MDM/BFG Midwestern Hort Expo; Minneapolis, MN).
- Turfgrass insect management (August 2, 2007. Kansas Turfgrass Field Day; Olathe, KS).
- Compatibility conflict: the use of pesticides with biological control agents (July 31, 2007. Association of Education and Research Greenhouse Curators Annual Meeting; Storrs, CT).
- Trade show interactive; with J. Williams and P. Konjoian (July 17, 2007. Ohio Florists' Association Short Course; Columbus, OH).
- Crop culture and sanitation (July 17, 2007. Ohio Florists' Association Short Course; Columbus, OH).
- Pesticide resistance—a grower's response (July 16, 2007. Ohio Florists' Association Short Course; Columbus, OH).
- Don't get "stirred" by tank mixing (July 14, 2007. Ohio Florists' Association Short Course; Columbus, OH).
- Greenhouse insect management (July 17, 2007. College of Knowledge: Ohio Florists' Association Short Course; Columbus, OH).
- Insect and mite management on roses (June 28, 2007. Chattanooga Rose Society Meeting; Chattanooga, TN).
- Insect update (June 15, 2007. Kansas Arborists Association Summer Field Day; Clinton Lake, KS).
- Emerging insect pests (April 4, 2007. Greenhouse Pest and Disease Diagnostics Workshop; Denver, CO).
- Arthropod pests of landscapes (March 29, 2007. Grounds Maintenance Workshop; Hays, KS).
- Arthropod pests of landscapes (March 22, 2007. Grounds Maintenance Workshop; Garden City, KS).
- Beneficial insects in the vineyard (March 10, 2007. Kansas Grape Growers and Winemakers Association Meeting; Emporia, KS).
- Insects of the landscape (February 24, 2007. 2007 Manhattan Area Garden Show; Manhattan, KS).
- How insecticides and miticides work (February 22, 2007. 2007 Gard'N'Wise Clerk Training; Wichita, KS).
- How insecticides and miticides work (February 20, 2007. 2007 Gard'N'Wise Clerk Training; Dodge City, KS).
- Pest management in greenhouses (February 6, 2007. 11<sup>th</sup> Annual Greenhouse Growers' School; Columbia, MO).
- Insect control II: control of chewers and suckers with organic, soft, and hot products (February 1, 2007. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Insect control I: Japanese beetles, corn rootworm, and some other difficult to control vegetable and flower pests (February 1, 2007. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Integrated thrips control strategies targeting each stage of the insect life cycle; Q-Biotype whitefly update (January 18, 2007. Romeo Packing & UAP Production Horticulture Seminar; Carpinteria, CA).
- Integrated thrips control strategies targeting each stage of the insect life cycle; Q-Biotype whitefly update (January 16, 2007. Romeo Packing & UAP Production Horticulture Seminar; Watsonville, CA).



- Unwelcome guests: concerns and issues with invasive species (January 12, 2007. 52<sup>nd</sup> Kansas Arborists Association Annual Shade Tree Conference; Topeka, KS).
- De-bugging your greenhouse: effectively managing insect and mite pests in greenhouses (January 10, 2007. Oregon Association of Nurserymen Greenhouse Chapter Seminar; Wilsonville, OR).
- Turfgrass insects (November 28, 2006. 56<sup>th</sup> Annual Kansas Turfgrass Conference; Topeka, KS).
- Cultural management of pests on greenhouse ornamentals (November 16, 2006. Northwest Indiana Floriculture Association Meeting; Crete, IL).
- Insect identification and control on ornamentals and turf (November 15, 2006. Pesticide Recertification Workshop 3A, 3B, 3C and Registered Technicians; Wichita, KS).
- Dealing with poinsettia pests...effectively (November 9, 2006. 10<sup>th</sup> Annual Penn State Poinsettia Growers Trial; Zionsville, PA).
- Pest-B-Gone (November 7, 2006. 2006 Michigan Greenhouse Growers Expo; Lansing, MI).
- Combining pesticides with natural enemies (November 3, 2006. New England Greenhouse Conference and Expo; Worcester, MA).
- Pesticide resistance management (November 2, 2006. New England Greenhouse Conference and Expo; Worcester, MA).
- Insect and mite identification and management (November 1, 2006. New England Greenhouse Conference and Expo; Worcester, MA).
- New issues in pest management (October 11, 2006. Kansas Greenhouse Grower Association Meeting; Manhattan, KS).
- Update—greenhouse insect control (October 5, 2006. 2006 Indiana Flower Growers Conference; West Lafayette, IN).
- Tree insects (October 2, 2006. 33<sup>rd</sup> Kansas Arborists Association Training Course; Manhattan, KS).
- Mite-B-Gone: everything you wanted to know about managing spider mites—but were afraid to ask (September 28, 2006. Lectures in Bloom Series; New Orleans, LA).
- Insect identification and control (September 25, 2006. 2006 Perennial Production Conference; Indianapolis, IN).
- Understanding chemicals so they work for you (September 25, 2006. 2006 Perennial Production Conference; Indianapolis, IN).
- Mite-B-Gone: everything you wanted to know about managing spider mites—but were afraid to ask (September 20, 2006. Lectures in Bloom Series; Las Vegas, NV).
- Impact of cultural management of pests (September 13, 2006. Buyerfest; West Bend, WI).
- New options for insect and mite control (September 6, 2006. Hort Expo South Trade Show Program; Kansas City, MO).
- Mite-B-Gone: everything you wanted to know about managing spider mites—but were afraid to ask (August 15, 2006. Lectures in Bloom Series; Chicago, IL).
- Bugs galore: how to debug your garden (July 15, 2006. Woldhuis Farms Sunrise Greenhouse Seminars; Grant Park, IL).
- Bug-Geta: how to successfully use pest control materials to control insect and mite pests (July 11, 2006. Ohio Florists' Association Short Course; Columbus, OH).
- Insects: A to M—aphids, fungus gnats, leafminers, and mealybugs (July 9, 2006. Ohio Florists' Association Short Course; Columbus, OH).
- Role of nutrition in disease and insect problem development (July 9, 2006. Ohio Florists' Association Short Course; Columbus, OH).
- Best management practices: making pest management cost effective (July 8, 2006. Ohio Florists' Association Short Course; Columbus, OH).
- BUG-OL-OGY: how well do you know your pest control materials? (June 23, 2006. Southeast Greenhouse Conference; Greenville, SC).
- Western flower thrips (June 22, 2006. Southeast Greenhouse Conference; Greenville, SC).

- Insect update (June 16, 2006. Kansas Arborists Association Summer Field Day; Lawrence, KS).
- Insecticide and biocontrol compatibility (June 9, 2006. 10<sup>th</sup> Annual Environmental Horticulture Integrated Pest Management Conference; San Luis Obispo, CA).
- Insecticide and biocontrol compatibility—mealybugs too! (June 7, 2006. San Diego CAPCA's Nursery Greenhouse Seminar 2006; Carlsbad, CA).
- Feeding behavior of the rove beetle, *Atheta coriaria* Kraatz (Coleoptera: Staphylinidae) under laboratory conditions (May 18, 2006. IOBC/WPRS Working Group Meeting Integrated Pest Control in Protected Crops, Mediterranean Climate; Murcia, Spain).
- Integrated pest management in greenhouses and nurseries: The USA perspective (April 4, 2006. 5<sup>th</sup> National Integrated Pest Management Symposium; St. Louis, MO).
- New strategies to control insect pests in landscape ornamentals (March 21-22, 2006. Fisher & Son Company, Inc. Tree Technology Conference; Stevens, PA and Lawrenceville, NJ).
- How does suburbanization influence pest problems? (March 14, 2006. 50<sup>th</sup> Annual Iowa State University Shade Tree Short Course; Ames, IA).
- Integrated pest management (March 2, 2006. Peoria Garden Club; Peoria, IL).
- Pest control: don't get buggy on us (March 1, 2006. 2006 Pro-Hort; Morton, IL).
- Bug wars: update on new pest control materials (February 23, 2006. Toledo Area Bedding Plants Clinic; Sylvania, OH).
- How to de-bug your turfgrass (February 22, 2006. 24<sup>th</sup> Annual Southern Illinois Grounds Maintenance School and Trade Show; Collinsville, IL).
- Identification and control of the major insect pests of the landscape and nursery (February 21, 2006. Purdue University Cooperative Extension Service Initial Certification Training, Commercial Pesticide Applicators: Category 3a—Ornamental Pest Control; West Lafayette, IN).
- Greenhouse vegetable transplant production including insect pest management (February 9, 2006. 2006 Kankakee County Vegetable Growers School; Kankakee, IL).
- Bugs galore: a pot-pourri of insect and mite issues (February 7, 2006. The Autumn Tree Care Experts Seminar; Chicago, IL).
- Biorational pest control materials: what are they and are they effective? (February 2, 2006. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Bug-B-Gone: why it is important to understand modes of action (February 2, 2006. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Ornamental entomology/integrated pest management (January 26, 2006. BWI Grower Educational Seminar; Springfield, MO).
- Mites on ornamentals, rotational practice, mite biology, and new mite control products (January 19, 2006. Wilbur-Ellis University Technical Seminar; Wilsonville, OR).
- Current mite control strategies (January 10 and 12, 2006. UAP West & Romeo Packing 2006 Production Horticulture Seminar; Watsonville and Carpinteria, CA).
- Bug battles: how to effectively deal with pests in greenhouses and garden centers (January 5, 2006. 32<sup>nd</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- Pest-B-Gone workshop (November 11, 2005. Ohio Florists' Association Outreach Program; Lemont, IL).
- Mites, thrips & other insect pests (November 1, 2005. Verdicon Fall Meeting-Nursery & Greenhouse Program; Dundee, MI).
- Mites and other pests of trees, and grub control for turf (November 1, 2005. Verdicon Fall Meeting-Lawn & Tree Care Program; Dundee, MI).
- Pest-B-Gone (October 13, 2005. Commercial Flower Growers of Wisconsin Meeting; Germantown, WI).
- Pest-B-Gone: how to get the "most" from your pest control materials (October 5, 2005. Indiana Flower Growers Conference; West Lafayette, IN).

- Pest management in horticulture: dealing with “bugs” in ornamental cropping systems (October 4, 2005. Kansas State University Department of Horticulture, Forestry, and Recreation Resources Fall Seminar Series; Manhattan, KS).
- Compatibility conflict: is the use of biological control agents with pesticides a viable management strategy? (September 12-16, 2005. Second International Symposium on Biological Control of Arthropods; Davos, Switzerland).
- Proper rotation among insecticides and miticides (August 31, 2005. Syngenta Kalamazoo Growers Meeting; Kalamazoo, MI).
- Combining pesticides with natural enemies (July 12, 2005. Ohio Florists’ Association Short Course; Columbus, OH).
- Update on new insecticides and fungicides (July 11, 2005. Ohio Florists’ Association Short Course; Columbus, OH).
- Fungus gnat management with diatomaceous earth (July 11, 2005. Ohio Florists’ Association Short Course; Columbus, OH).
- Effect of tank mixes in controlling insect pests (July 10, 2005. Ohio Florists’ Association Short Course; Columbus, OH).
- Insect and pest management: The whole nine yards (July 9, 2005. Ohio Florists’ Association Short Course; Columbus, OH).
- Bugs galore: Dealing with those pestiferous rose pests (June 23, 2005. Chattanooga Rose Society; Chattanooga, TN).
- Don’t get caught with your plants down (June 18, 2005. Woldhuis Farms Sunrise Greenhouse; Grant Park, IL).
- Feeding behaviors of pestiferous insects and mites: why this is important to know for control (June 9, 2005. Illinois Arborist Association Summer Conference; Monticello, IL).
- Pesticides and natural enemies: defining the issue of compatibility (May 11, 2005. IOBC-NRS/Biocontrol Network-Joint Meeting: Magog-Orford, Quebec, Canada).
- Entomology (March 30, 2005. Champaign Lions Club; Champaign, IL).
- Greenhouse insect pest management (March 5, 2005. Special Produce Growers Meeting; Arthur, IL).
- Greenhouse insect pest management (February 24, 2005. 2005 Kankakee County Vegetable Growers’ School; Kankakee, IL).
- Killing the critters, not the earth (February 22, 2005. 3<sup>rd</sup> Annual Midwest Ecological Landscaping Association-MELA; River Grove, IL).
- Strategies for biological control of greenhouse insects and mites (February 10, 2005. 2005 Tri-State Green Industry Expo; Covington, KY).
- Insecticide classifications, modes of action, efficacies and rotations and why modes of actions and rotations are important (February 3, 2005. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Bugs I: why and how insects and mites feed on your plants and flowers and how to identify them (February 3, 2005. Mid-Atlantic Fruit and Vegetable Convention; Hershey, PA).
- Pest control: the latest on the Emerald ash borer (February 2, 2005. 14<sup>th</sup> Annual Pro Hort Symposium; Peoria, IL).
- Constructing an effective pest management program (January 28, 2005. 2005 Iowa Fruit & Vegetable Growers Association Annual Convention and Trade Show; Marshalltown, IA).
- Beneficial insects (January 28, 2005. 2005 Iowa Fruit & Vegetable Growers Association Annual Convention and Trade Show; Marshalltown, IA).
- Aspects of growing using non-toxic controls of pests (January 20, 2005. Mid-Am Trade Show; Chicago, IL).
- New pest control materials and mode of action (January 6, 2005. 31<sup>st</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- Safari: a new neonicotinoid insecticide (December 14, 2004. Neonicotinoid Technical Conference; Phoenix, AZ).

- Mealybugs and their life cycles (December 1, 2004. Western Farm Service Inc. IPM Update Conference; Salinas, CA).
- “Getting the bug down:” update on insect management (November 11, 2004. Northwest Indiana Floriculture Association Meeting; Crete, IL).
- Pest management in the retail greenhouse (October 18, 2004. New England Greenhouse Conference and Expo; Worcester, MA).
- Pest management basics (October 18, 2004. New England Greenhouse Conference and Expo; Worcester, MA).
- What’s new in insect control: particularly leafminers among others (October 7, 2004. Indiana Flower Growers Conference; West Lafayette, IN).
- Biological control of insects and diseases workshop (September 22, 2004. 2004 International Bedding Plant Production Conference; Rosemont, IL).
- Insect and mite identification and control workshop (September 21, 2004. 2004 International Bedding Plant Production Conference; Rosemont, IL).
- Pesticide rotations: why is it important to know modes of action (August 31, 2004. 9<sup>th</sup> Annual BFG Supply Co., Buyer’s Trade Show; Wheaton, IL).
- Weapons of mass destruction (WMD): what are the new pest control materials and are they effective (August 25, 2004. 2004 Midwestern Hort Expo; Minneapolis, MN).
- Fighting fungus gnats: how to deal with these critters from the deep (August 24, 2004. Midwestern Hort Expo; Minneapolis, MN).
- They’re called soft, but they carry a big stick (July 13, 2004. Ohio Florists’ Association Ohio Short Course; Columbus, OH).
- Asks the insects: an interview with your favorite pests (July 12, 2004. Ohio Florists’ Association Ohio Short Course; Columbus, OH).
- Pests and diseases: diagnosing and managing crop problems (July 10, 2004. Ohio Florists’ Association Ohio Short Course; Columbus, OH).
- Diagnostics: insects and diseases (July 10, 2004. Ohio Florists’ Association Ohio Short Course; Columbus, OH).
- Pesticide rotations (June 25, 2004. Southeast Greenhouse Conference; Greenville, SC).
- Cultural practices in pest management (June 25, 2004. Southeast Greenhouse Conference; Greenville, SC).
- Biological control of insects in propagation (June 24, 2004. Southeast Greenhouse Conference; Greenville, SC).
- Insect identification in propagation (June 24, 2004. Southeast Greenhouse Conference; Greenville, SC).
- Insecticides in floriculture (June 11, 2004. 8<sup>th</sup> Annual Environmental Horticulture Integrated Pest Management Conference; San Luis Obispo, CA).
- The devils from the deep: why fungus gnats are problematic (June 10, 2004. 8<sup>th</sup> Annual Environmental Horticulture Integrated Pest Management Conference; San Luis Obispo, CA).
- What’s bugging you? (June 5, 2004. Kleiss Nursery Garden School; Tolono, IL).
- Integrated pest management in floriculture production systems: are action thresholds realistic? (March 29, 2004. North Central Branch Entomological Society of America Annual Meeting; Kansas City, MO).
- Natural indeed: are natural pesticides safer and better than conventional pesticides (March 20, 2004. 2004 Chicago Flower and Garden Show; Chicago, IL).
- Pestgalore: how are you going to deal with insect pests in the future? (March 11, 2004. Stateline Conference For Landscape Professionals; Janesville, WI).
- Scale insects on trees and shrubs (February 24, 2004. 22<sup>nd</sup> Annual Southern Illinois Grounds Maintenance School Conference; Collinsville, IL).
- Greenhouse troubleshooting: insect pests and diseases (February 16, 2004. Kankakee County Vegetable Growers School; Bourbonnais, IL).

- Invasive species: how do we deal with these unwelcome visitors? (February 11, 2004. Midwest Ecological Landscaping Association-MELA Mini-Conference; River Grove, IL).
- Insects: boring? NO! Wood-boring? OH-NO! (February 11, 2004. The Autumn Tree Care Experts: Silver Anniversary Seminar, Chicago Botanic Garden; Glencoe, IL).
- Are pests eating away your profits? (February 4, 2004. 12<sup>th</sup> Annual Pro Hort Symposium; Peoria, IL).
- The “lowdown” on new pesticides and new pests (January 21, 2004. Metropolitan Detroit Flower Growers’ Association Annual Meeting; Wixom, MI).
- Hard to kill: why should you worry about insecticide resistance? (January 20, 2004. Winter Flower Growers’ Meeting; Boston, MA).
- Insect and mite management in greenhouses: Issues related to tank mixes and new pest control materials (January 15, 2004. Mid-America Horticultural Trade Show; Chicago, IL).
- Insect control in annuals and perennials (January 8, 2004. 2004 Indiana Nursery and Landscape Association Professional Landscape and Nursery Trade Show; Indianapolis, IN).
- Identification and control of boring insects in the landscape (January 8, 2004. 2004 Indiana Nursery and Landscape Association Professional Landscape and Nursery Trade Show; Indianapolis, IN).
- Tank mixing (January 6, 2004. 30<sup>th</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- Scale insects: how to identify and deal with these little suckers (December 4, 2003. North Central Turfgrass Exposition; St. Charles, IL).
- Insects in vegetable transplants (November 13, 2003. Iowa-Illinois Fruit and Vegetable Growers Conference; Bettendorf, IA).
- What’s new in insect control (October 9, 2003. Indiana Flower Growers Conference; West Lafayette, IN).
- Insect and mite control in greenhouse situations (October 7, 2003. Fall Greenhouse Growers Program; Cedar Rapids, IA).
- Insect and mite identification and control (September 30, 2003. 2003 Perennial Production Conference; St. Charles, IL).
- Conservation biological control (September 19, 2003. 2003 Illinois Master Gardener State Conference; Lisle/Naperville, IL).
- Invasive species (September 19, 2003. 2003 Illinois Master Gardener State Conference; Lisle/Naperville, IL).
- Identification lab on insects and plant diseases (September 16, 2003. J. G. Smith/BFG Supply 8<sup>th</sup> Annual Buyer’s Trade Show; Naperville, IL).
- Greenhouse insect and mite management and new pesticide controls (September 10, 2003. Kentuckiana Greenhouse Association Educational Session; Louisville, KY).
- Integrated pest management of floriculture pests: where are fungus gnats coming from? (September 4, 2003. Department of Entomology Seminar Series: Purdue University; West Lafayette, IN).
- Systemic pest control materials and tank mixing: what’s it all about? (August 28, 2003. Chattanooga Rose Society; Chattanooga, TN).
- Insect management for upcoming crops (August 12, 2003. Carlin Horticultural Supplies Westfield Open House; Westfield, IN).
- Effective use of insecticides to manage this year’s most voracious insects (July 16, 2003. Ohio Florists’ Association Short Course; Columbus, OH).
- Where are fungus gnats, *Bradysia* spp., coming from? (July 14, 2003. Ohio Florists’ Association Short Course; Columbus, OH).
- Modifying your tank mixes for maximum pesticide performance (July 13, 2003. Ohio Florists’ Association Short Course; Columbus, OH).
- Diagnostics (July 12, 2003. Ohio Florists’ Association Short Course; Columbus, OH).
- Japanese beetles and other garden pests (June 7, 2003. Kleiss Nursery Garden School; Tolono, IL).
- Insects and their control (May 28, 2003. Styer’s Horticultural Consulting Grower Conference; Indianapolis, IN).

- Integrated pest management in greenhouses: are pest control materials and natural enemies compatible? (April 8, 2003. Fourth National Integrated Pest Management Symposium; Indianapolis, IN).
- Biological control in interior plantscapes: does plant size affect natural enemy success? (March 25, 2003. North Central Branch Entomological Society of America; Madison, WI).
- Borer problems in trees and shrubs (February 26, 2003. 21<sup>st</sup> Annual Southern Illinois Grounds Maintenance School and Trade Show; Collinsville, IL).
- Tank-mixing the right way (February 23, 2003. 19<sup>th</sup> Society of American Florists' Annual Conference on Pest Management on Ornamentals; Orlando, FL).
- Calibration and calculation with pesticide application equipment (February 23, 2003. 19<sup>th</sup> Society of American Florists' Annual Conference on Pest Management on Ornamentals; Orlando, FL).
- Dealing with garden pests using environmentally-sound management strategies (February 15, 2003, Gardeners Day; Springfield, IL).
- Controlling greenhouse insect pests (February 6, 2003. 2003 Tri-State Green Industry Expo; Covington, KY).
- Future of pest management in Illinois (February 5, 2003. 11<sup>th</sup> Annual Pro Hort Symposium; Peoria, IL).
- Unwelcome visitors: Gypsy moth, Japanese beetle, and mosquitoes (February 1, 2003. Joys of Gardening; Freeport, IL).
- Integrated pest management (January 31, 2003. Pest Control for Interior Plantscapes Seminar: Ohio Florists' Association; Columbus, OH).
- Diagnostics (January 31, 2003. Pest Control for Interior Plantscapes Seminar: Ohio Florists' Association; Columbus, OH).
- Bug-sumption: dealing with insects and mites on greenhouse-grown herbs (January 22, 2003. Illinois Specialty Growers Conference; Springfield, IL).
- Managing insects on ornamental crops in the greenhouse (January 9, 2003. Illiana Vegetable Growers' School; Schererville, IN).
- Managing insect and mite pests of greenhouse-grown herbs and vegetables (January 7, 2003. 29<sup>th</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- Dealing with wood-boring insects in landscapes (December 4, 2002. 2002 North Central Turfgrass Exposition; St. Charles, IL).
- Invasive pests-should you be worried? (November 13, 2002. University of Illinois/Central Illinois Golf Course Superintendents Association Annual Education Seminar; Bloomington, IL).
- Top 10 insects in Illinois (October 18 and 19, 2002. Chalet Nursery's Lecture Series; Wilmette, IL).
- Fundamentals of tank mixing and rotating pesticides (October 16, 2002. 22<sup>nd</sup> Annual Midwest Fall Growers' Conference; Des Moines, IA).
- Orchid workshop (September 28, 2002. Luthy Botanical Garden; Peoria, IL).
- Insect and plant disease identification laboratory (September 17, 2002. J & G Smith 7<sup>th</sup> Annual Buyer's Trade Show; Naperville, IL).
- Management of insect and mite pests using new chemistry (September 11, 2002. Carlin Horticultural Supplies Buyerfest; West Bend, WI).
- Controlling harmful insects (July 27, 2002. Environmental Commission of Hoffman Estates Speaker Series; Hoffman Estates, IL).
- Managing insect and mite pests in interior plantscapes: Challenges and opportunities (July 25, 2002. Association of Education and Research Greenhouse Curators Annual Meeting; West Lafayette, IN).
- Horticultural practices and pest management: conflicting interests (July 17, 2002. Ohio Florists' Association Short Course; Columbus, OH).
- Perennial pest management (July 14, 2002. Ohio Florists' Association Short Course; Columbus, OH).
- Pest management in perennial production systems (July 11, 2002. Perennial Plant Association Symposium and Trade Show; Rosemont, IL).
- Tank mixes (June 22, 2002. Southeast Greenhouse Conference; Greenville, SC).
- Pest/natural enemy interaction (June 21, 2002. Southeast Greenhouse Conference; Greenville, SC).

- Insect and related pest identification and diagnosis (June 20, 2002. Southeast Greenhouse Conference; Greenville, SC).
- Growing orchids: it's easier than you think (April 13, 2002. 4<sup>th</sup> Annual Tri-County Gardening Day; Peoria, IL).
- Wanted dead or alive (mostly dead) ornamental insect pests of Illinois and how to deal with them (April 13, 2002. 4<sup>th</sup> Annual Tri-County Gardening Day; Peoria, IL).
- Challenges related to using biological control in greenhouses (March 27, 2002. North Central Branch Entomological Society of America; East Lansing, MI).
- Gypsy moth-a pest here to stay (March 1, 2002. Chicago Flower and Garden Show; Navy Pier, Chicago, IL).
- How to make pesticides work better (February 20, 2002. 2002 Indiana Spring Plants School; Indianapolis, IN).
- Plant galls: are they a concern? (February 19, 2002. 20<sup>th</sup> Annual Southern Illinois Grounds Maintenance School and Trade Show; Collinsville, IL).
- Orchid pest management (February 9, 2002. Greenview Nursery; Champaign, IL)
- Bugs galore: major insect pests of Illinois (February 5, 2002. 10<sup>th</sup> Annual Pro Hort Symposium; Peoria, IL).
- Fighting the foe from the deep-fungus gnats (January 4, 2002. 28<sup>th</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- The impact of suburbanization on pest control (November 28, 2001. North Central Turfgrass Exposition; St. Charles, IL).
- Managing the top ten landscape insect problems (November 29, 2001. North Central Turfgrass Exposition; St. Charles, IL).
- Biological control of insect pests in the greenhouse and update on new insecticides (November 8, 2001. Northwest Indiana Floriculture Association Meeting and Pesticide Applicator Training; LaPorte, IN).
- Pesticides (November 6, 2001. Big Muddy River Correctional Center; Ina, IL).
- Ways to maximize the effectiveness of pesticide applications (October 25, 2001. Kansas Greenhouse Growers Conference; Manhattan, KS).
- Understanding the behavior of fungus gnats in greenhouse production systems (October 24, 2001. Kansas Greenhouse Growers Conference; Manhattan, KS).
- Plant nutrition (October 12, 2001. Lincoln and Garfield Park Conservatory Development Workshop; Chicago, IL).
- Update on greenhouse insect control (October 11, 2001. Indiana Flower Growers Conference; West Lafayette, IN).
- Resistance management: should you be concerned? (September 25, 2001. J & G Smith 6<sup>th</sup> Annual Buyer's Trade Show; Naperville, IL).
- Integrated pest management (July 25, 2001. Big Muddy River Correctional Center; Ina, IL).
- Insect management in perennial production (July 18, 2001. Ohio Florists' Association Short Course; Columbus, OH).
- Understanding the behavior of fungus gnats and their natural enemies (July 17, 2001. Ohio Florists' Association Short Course; Columbus, OH).
- Ways to maximize pesticide effectiveness (July 15, 2001. Ohio Florists' Association Short Course; Columbus, OH).
- Insect and mite management on bedding plants (June 23, 2001. Southeast Greenhouse Conference; Greenville, SC).
- Resistance management: theory and practice (June 23, 2001. Southeast Greenhouse Conference; Greenville, SC).
- Insecticide efficacy trials (June 22, 2001. Southeast Greenhouse Conference; Greenville, SC).
- What's happening on the "bug" front (June 11, 2001. 3<sup>rd</sup> Annual Greenhouse Management Workshop; Springfield, IL).

- Managing insect and mite pests with new chemistry/insect management and control (May 17, 2001. Floriculture Spring Seminar; Tampa, FL).
- Pest management: past, present, and future (March 31, 2001. 3<sup>rd</sup> Annual Tri-County Gardening Day; Peoria, IL).
- Does plant size influence natural enemy foraging success? (March 26, 2001. Department of Entomology Seminar; University of Illinois, Urbana, IL).
- Bad bugs come to Illinois: Asian long-horned beetle and Gypsy moth (March 15, 2001. Green Seminar; Oakbrook, IL).
- The nuts and bolts of growing orchids (March 10, 2001. Chicago Flower and Garden Show; Navy Pier, Chicago, IL).
- Starting right in the greenhouse (March 2, 2001. East Central Illinois and Western Indiana Commercial Vegetable Production School; Kankakee, IL).
- Major insect problems of deciduous trees (February 21, 2001. 19<sup>th</sup> Annual Southern Illinois Grounds Maintenance School; Collinsville, IL).
- Insect identification and current management options (January 30, 2001. Central Illinois Greenhouse Management Workshop; Peoria, IL).
- How to improve performance of pest control materials (January 30, 2001. Central Illinois Greenhouse Management Workshop; Peoria, IL).
- Everything you wanted to know about spider mites—but were afraid to ask (January 21, 2001. Olympic Horticultural Products Annual Meeting; Key West, FL).
- Up-date on greenhouse and landscape pest control materials (January 5, 2001. 27<sup>th</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- New trends in insect control in the greenhouse and landscape (January 4, 2001. 2001 North Carolina Green N' Growin Show and Floral Exposition; Winston-Salem, NC).
- Insect management and biocontrols (January 3, 2001. North Carolina Green N' Growin Show and Floral Exposition; Winston-Salem, NC).
- The role of extension in implementing biological control in greenhouses and other interior plantscapes (December 5, 2000. Entomological Society of America Annual Meeting; Montreal, Canada).
- The impact of parasitoids on Japanese beetle populations (November 29, 2000. 2000 North Central Turfgrass Exposition; St. Charles, IL).
- All about grubs-identification, biology, and control (November 30, 2000. North Central Turfgrass Exposition; St. Charles, IL).
- Thrips control (October 17, 2000. 12<sup>th</sup> Ornamental Workshop on Disease and Insects; Crossnore, NC).
- Greenhouse insect control (October 11, 2000. Indiana Flower Growers Conference; West Lafayette, IN).
- Strategies to deal with insect and mite pests in greenhouses (September 12, 2000. J & G Smith 5<sup>th</sup> Annual Buyer's Trade Show; Naperville, IL).
- Orchids galore workshop (September 2, 2000. Luthy Botanical Garden; Peoria, IL).
- Insects and how they affect your life (August 25, 2000. Singles Celebrating Life; Champaign, IL).
- Total thrips management (July 11, 2000. Ohio Florists' Association Short Course; Columbus, OH).
- Pest control solutions: mealybug and scale (July 8, 2000. Ohio Florists' Association Short Course; Columbus, OH).
- Poinsettias: disease and insect management (July 8, 2000. Ohio Florists' Association Short Course; Columbus, OH).
- Up-date on pest control materials (June 20, 2000. 2<sup>nd</sup> Annual Greenhouse Management Workshop; Naperville, IL).
- Guidelines to implement a biological control program in the greenhouse (June 20, 2000. 2<sup>nd</sup> Annual Greenhouse Management Workshop; Naperville, IL).
- Understanding insects: good and bad (March 25, 2000. Tri-County Gardening Day; Illinois Central College, Peoria, IL).



- Orchid pest management (March 21, 2000. Central Illinois Orchid Society; Urbana, IL).
- Effects of plant architecture on biological control in ornamental systems (March 27, 2000. North Central Branch Entomological Society of America; Minneapolis, MN).
- Don't let "bugs" bug you: managing insects in the yard and garden (March 15, 2000. Chicago Flower and Garden Show; Navy Pier, Chicago, IL).
- Insect and plant interactions in the landscape (March 1, 2000. Southern Illinois Grounds Maintenance School; Collinsville, IL).
- Fungus gnats and shorefly management strategies (February 19, 2000. Society of American Florists Insect and Disease Management on Ornamentals; San Jose, CA).
- Holistic pest management (February 12, 2000. 12<sup>th</sup> Annual Midwestern Herb Show; Mount Vernon, IL).
- Safety considerations for the interiorscape (February 10, 2000. Interior Plantscape Workshop; Chicago, IL).
- Integrated pest management for the interiorscape: controlling scale, mealybug, and fungus gnats (February 10, 2000. Interior Plantscape Workshop; Chicago, IL).
- Integrated pest management for the interiorscape: controlling scale, mealybug, and fungus gnats (February 4, 2000. Interior Plantscape Workshop; Perrysburg, OH).
- Resistance management for greenhouse growers: theory and practice (February 2, 2000. Western Region—Spring Primer for Bedding Plant Growers; Monroeville, PA).
- Tried, true, and new pest control products for greenhouses (February 2, 2000. Western Region—Spring Primer for Bedding Plant Growers; Monroeville, PA).
- Integrated pest management for the interiorscape: controlling scale, mealybug, and fungus gnats (February 1, 2000. Interior Plantscape Workshop; Columbus, OH).
- Developments in pest management in greenhouses (January 14, 2000. Mid-American Growers; Granville, IL).
- Biological controls in the greenhouse (January 5, 2000. 26<sup>th</sup> Southern Illinois Bedding Plant School and Trade Show; Belleville, IL).
- Getting the most from landscape insect control products (December 1, 1999. North Central Turfgrass Exposition; Pheasant Run Resort and ExpoCenter, St. Charles, IL).
- New developments for insect management in greenhouses (November 11, 1999. Northwest Indiana Floriculture Association; Crete, IL).
- Using pesticides for insect control (October 5, 1999. Indiana Flower Growers Conference; West Lafayette, IN).
- Holistic pest management strategies for dealing with bugs (August 19, 1999. Master Gardener Conference; Champaign, IL).
- Whiteflies (July 14, 1999. Ohio Florists' Association Short Course; Columbus, OH).
- Giving fungus gnats the deep six (July 10, 1999. Ohio Florists' Association Short Course; Columbus, OH).
- Insecticides and biocontrols for managing insect pests of perennials (June 18, 1999. Southwest Greenhouse Conference and Trade Show; Greenville, SC).
- Biological pest control methods for the interiorscape (March 12, 1999. Pest Control for Interior Plantscapes; Louisville, KY).
- New insect control issues (October 6, 1998. Indiana Flower Growers Annual Conference; West Lafayette, IN).
- What's bugging you? Pest management in the home garden (July 25, 1998. Purdue Horticulture Garden Day; West Lafayette, IN).
- Integrated pest management: a success story (July 11, 1998. Interior Plantscape Workshop. Ohio Florists' Association Short Course; Columbus, OH).
- Do not let bugs "bug" you (June 12, 1998. Nurserymen's Exchange Grower's Day XVII; Half Moon Bay, CA).
- Pest control in bedding plants (March 19, 1998. Northwest Indiana Floriculture Association; Lake Village, IN).
- Thrips control in the greenhouse (January 6, 1998. Southern Illinois Bedding Plant School; Belleville, IL).

- Expanding your business-Landscape IPM (January 5, 1998. Purdue Pest Control Conference; West Lafayette, IN).
- Bio-control: use of beneficial insects (November 6, 1997. Michigan Greenhouse Growers Expo; Lansing, MI).
- IPM-how we do we do it? (October 8, 1997. Indiana Flower Growers Annual Conference; Indianapolis, IN).
- Pesticides for greenhouses (June 14, 1997. Southeast Greenhouse Conference and Trade Show; Greenville, SC).
- Insect pests of greenhouse pansies (June 14, 1997. Southeast Greenhouse Conference and Trade Show; Greenville, SC).
- New insecticides (October 2, 1996. Indiana Flower Growers Annual Conference; West Lafayette, IN 1996).
- Insect control in the greenhouse (November 29, 1995. West Central Indiana Flower Growers Association; Crete, IN).
- Greenhouse biological control (November 3, 1995. Biological Control of Insects Extension Conference; West Lafayette, IN).
- Biological control in corn with *Trichogramma* (November 2, 1995. Biological Control of Insects Extension Conference; West Lafayette, IN).
- Controlling thrips (October 10, 1995. Indiana Flower Growers Annual Conference; Indianapolis, IN).
- Integrated pest management in greenhouses (April 10, 1995. Tippecanoe Master Gardeners Association; West Lafayette, IN).
- Greenhouse biological control (January 17, 1995. Biological Control of Insects Extension Conference; West Lafayette, IN).
- Biological control in corn with *Trichogramma* (January 16, 1995. Biological Control of Insects Extension Conference; West Lafayette, IN).
- Greenhouse biological control (October 20, 1993. Biological Control of Insects Conference; Madison, WI).
- An entomologist in the greenhouse (October, 4, 1994. Indiana Flower Growers Annual Conference; Indianapolis, IN).
- Starting an IPM program—the California experience (April 15, 1993. Northwest Indiana Floriculture Association; LaPorte, IN).

## **12. Presentations: Basic Master Gardener Training Sessions—Kansas State University (Manhattan, KS)**

- Entomology: What's bugging you? (November 21, 2019. Wichita, KS).
- Pesticide use and safety (October 31, 2019. Manhattan, KS).
- Entomology: What's bugging you? (October 31, 2019. Manhattan, KS).
- Pesticide use and safety (October 17, 2019. Emporia, KS).
- Entomology: What's bugging you? (October 17, 2019. Emporia, KS).
- Entomology: What's bugging you? (October 15, 2019. Olathe, KS).
- Entomology: What's bugging you? (October 10, 2019. Topeka, KS).
- Entomology: What's bugging you? (September 19, 2019. Lawrence, KS).
- Pesticide use and safety (March 14, 2019. Salina, KS).
- Entomology: What's bugging you? (March 14, 2019. Salina, KS).
- Pesticide use and safety (March 13, 2019. Pratt, KS).
- Entomology: What's bugging you? (March 13, 2019. Pratt, KS).
- Pesticide use and safety (February 2, 2019. Lyndon, KS).
- Entomology: What's bugging you? (February 2, 2019. Lyndon, KS).
- Pesticide use and safety (November 8, 2018. Newton, KS).
- Entomology: What's bugging you? (November 8, 2018. Newton, KS).
- Entomology: What's bugging you? (November 1, 2018. Topeka, KS).
- Pesticide use and safety (October 11, 2018. Wichita, KS).

Entomology: What's bugging you? (October 11, 2018. Wichita, KS).  
Pesticide use and safety (October 4, 2018. Manhattan, KS).  
Entomology: What's bugging you? (October 4, 2018. Manhattan, KS).  
Entomology: What's bugging you? (October 2, 2018. Olathe, KS).  
Pesticide use and safety (September 24, 2018. Chanute, KS).  
Entomology: What's bugging you? (September 24, 2018. Chanute, KS).  
Entomology: What's bugging you? (September 13, 2018. Lawrence, KS).  
Entomology: What's bugging you? (March 1, 2018. Salina, KS).  
Entomology: What's bugging you? (February 28, 2018. Great Bend, KS).  
Pesticide use and safety (November 16, 2017. Newton, KS).  
Entomology: what's bugging you? (November 16, 2017. Newton, KS).  
Pesticide use and safety (October 19, 2017. Wichita, KS).  
Entomology: what's bugging you? (October 19, 2017. Wichita, KS).  
Entomology: what's bugging you? (October 12, 2017. Topeka, KS).  
Pesticide use and safety (October 5, 2017. Manhattan, KS).  
Entomology: what's bugging you? (October 5, 2017. Manhattan, KS).  
Entomology: what's bugging you? (October 3, 2017. Parsons, KS).  
Entomology: what's bugging you? (September 26, 2017. Lawrence, KS).  
Entomology: what's bugging you? (March 9, 2017. Salina, KS).  
Entomology: what's bugging you? (March 8, 2017. Sublette, KS).  
Entomology: what's bugging you? (November 15, 2016. Olathe, KS).  
Entomology: what's bugging you? (November 15, 2016. Kansas City, KS).  
Pesticide use and safety (October 27, 2016. Wichita, KS).  
Entomology: what's bugging you? (October 27, 2016. Wichita, KS).  
Entomology: what's bugging you? (October 20, 2016. Hutchinson, KS).  
Pesticide use and safety (October 13, 2016. Manhattan, KS).  
Entomology: what's bugging you? (October 13, 2016. Manhattan, KS).  
Entomology: what's bugging you? (September 22, 2016. Topeka, KS).  
Entomology: what's bugging you? (September 20, 2016. Lawrence, KS).  
Entomology: what's bugging you? (March 10, 2016. Salina, KS).  
Entomology: what's bugging you? (March 8, 2016. Atwood, KS).  
Entomology: what's bugging you? (November 12, 2015. Newton, KS).  
Entomology: what's bugging you? (November 5, 2015. Wichita, KS).  
Pesticide use and safety (October 2, 2015. Manhattan, KS).  
Entomology: what's bugging you? (October 2, 2015. Manhattan, KS).  
Entomology: what's bugging you? (September 29, 2015. Olathe, KS).  
Entomology: what's bugging you? (September 24, 2015. Topeka, KS).  
Entomology: what's bugging you? (September 24, 2015. Lawrence, KS).  
Entomology: what's bugging you? (November 20, 2014. Wichita, KS).  
Pesticide use and safety (November 13, 2014. Newton, KS).  
Entomology: what's bugging you? (November 13, 2014. Newton, KS).  
Entomology: what's bugging you? (November 11, 2014. Kansas City, KS).  
Entomology: what's bugging you? (November 11, 2014. Olathe, KS).  
Pesticide use and safety (November 7, 2014. Manhattan, KS).  
Entomology: what's bugging you? (November 7, 2014. Manhattan, KS).  
Pesticide use and safety (November 1, 2013. Manhattan, KS).  
Entomology: what's bugging you? (November 1, 2013. Manhattan, KS).  
Pesticide use and safety (October 31, 2013. Newton, KS).  
Entomology: what's bugging you? (October 31, 2013. Newton, KS).

Entomology: what's bugging you? (October 29, 2013. Olathe, KS).  
Entomology: what's bugging you? (October 29, 2013. Kansas City, KS).  
Entomology: what's bugging you? (October 17, 2013. Wichita, KS).  
Entomology: what's bugging you? (October 10, 2013. Topeka, KS).  
Entomology: what's bugging you? (September 17, 2013. Lawrence, KS).  
Entomology: what's bugging you? (November 6, 2012. Olathe, KS).  
Entomology: what's bugging you? (November 6, 2012. Leavenworth, KS).  
Pesticide use and safety (November 1, 2012. Newton, KS).  
Entomology: what's bugging you? (November 1, 2012. Newton, KS).  
Pesticide use and safety (October 26, 2012. Manhattan, KS).  
Entomology: what's bugging you? (October 26, 2012. Manhattan, KS).  
Entomology: what's bugging you? (October 18, 2012. Wichita, KS).  
Entomology: what's bugging you? (October 4, 2012. Topeka, KS).  
Entomology: what's bugging you? (September 18, 2012. Lawrence, KS).  
Pesticide use and safety (November 17, 2011. Wichita, KS).  
Entomology: what's bugging you? (November 17, 2011. Wichita, KS).  
Pesticide use and safety (November 3, 2011. Newton, KS).  
Entomology: what's bugging you? (November 3, 2011. Newton, KS).  
Pesticide use and safety (October 28, 2011. Manhattan, KS).  
Entomology: what's bugging you? (October 25, 2011. Kansas City, KS).  
Entomology: what's bugging you? (October 25, 2011. Olathe, KS).  
Entomology: what's bugging you? (October 7, 2011. Manhattan, KS).  
Entomology: what's bugging you? (September 22, 2011. Topeka, KS).  
Entomology: what's bugging you? (September 6, 2011. Lawrence, KS).  
Entomology: what's bugging you? (November 18, 2010. Wichita, KS).  
Entomology: what's bugging you? (November 18, 2010. Newton, KS).  
Entomology: what's bugging you? (October 26, 2010. Olathe, KS).  
Entomology: what's bugging you? (October 26, 2010. Kansas City, KS).  
Entomology: what's bugging you? (October 5, 2010. Topeka, KS).  
Entomology: what's bugging you? (September 14, 2010. Lawrence, KS).  
Entomology: what's bugging you? (September 10, 2010. Manhattan, KS).  
Entomology: what's bugging you? (March 18, 2010. Salina, KS).  
Entomology: what's bugging you? (March 17, 2010. Garden City, KS).  
Entomology: what's bugging you? (March 16, 2010. Colby, KS).  
Entomology: what's bugging you? (November 6, 2009. Manhattan, KS).  
Entomology: what's bugging you? (November 5, 2009. Wichita, KS).  
Entomology: what's bugging you? (November 3, 2009. Olathe, KS).  
Entomology: what's bugging you? (November 3, 2009. Leavenworth, KS).  
Entomology: what's bugging you? (October 15, 2009. Hutchinson, KS).  
Entomology: what's bugging you? (October 1, 2009. Topeka, KS).  
Entomology: what's bugging you? (September 8, 2009. Lawrence, KS).  
Entomology: what's bugging you? (November 20, 2008. Wichita, KS).  
Entomology: what's bugging you? (November 11, 2008. Leavenworth, KS).  
Entomology: what's bugging you? (November 11, 2008. Olathe, KS).  
Entomology: what's bugging you? (October 30, 2008. Hutchinson, KS).  
Entomology: what's bugging you? (September 25, 2008. Topeka, KS).  
Entomology: what's bugging you? (September 12, 2008. Manhattan, KS).  
Entomology: what's bugging you? (April 1, 2008. Lawrence, KS).  
Entomology: what's bugging you? (November 15, 2007. Newton, KS).

Entomology: what's bugging you? (October 23, 2007. Topeka, KS).

Entomology: what's bugging you? (October 11, 2007. Wichita, KS).

Entomology: what's bugging you? (October 9, 2007. Kansas City, KS).

Entomology: what's bugging you? (October 9, 2007. Olathe, KS).

### **13. Presentations: Basic Master Gardener Training Sessions—University of Illinois (Champaign-Urbana, IL)**

Insecticides and miticides (October 24 and 26, 2006). Delivered via Latitude Bridge (or telnet). University of Illinois; Champaign-Urbana, IL.

Entomology: what's bugging you? (March 23, 2006. Macon County Extension Office; Decatur, IL).

Entomology: what's bugging you? (March 16, 2004. Knox County Extension Office; Galesburg, IL).

Entomology: what's bugging you? (March 15, 2004. Adams/Brown County Extension Office; Quincy, IL).

Entomology: what's bugging you? (March 8, 2005. Madison Extension Unit; Edwardsville, IL).

Entomology: what's bugging you? (March 9, 2004. Champaign County Extension Office; Champaign, IL).

Entomology: what's bugging you? (March 5, 2003. McClean County Extension Office; Bloomington, IL).

Entomology: what's bugging you? (March 12, 2002. Champaign County Extension Office; Champaign, IL).

Entomology: what's bugging you? (February 1, 2002. Rock Island County Extension Office; Rock Island, IL).

Entomology: what's bugging you? (March 7, 2001. Champaign County Extension Office; Champaign, IL).

Entomology: what's bugging you? (January 29, 2001. Peoria County Extension Office; Peoria, IL).

Entomology: what's bugging you? (October 24, 2000. Edgar County Extension Unit; Paris, IL).

Entomology: what's bugging you? (March 30, 2000. Jefferson County Extension Unit; Mount Vernon, IL).

Entomology: what's bugging you? (March 8, 2000. Effingham Extension Center; Effingham, IL).

Insect pests and their control (February 29, 2000. Champaign County Extension Unit; Champaign, IL).

Entomology (January 25, 2000. Hancock County Extension Unit; Carthage, IL).

### **14. Presentations: Advanced Master Gardener Training Sessions—Kansas State University (Manhattan, KS)**

Insect "foes and friends" (bad and good bugs) in your garden (June 25, 2019. Advanced Master Gardener Training Workshop; Paola, KS).

Understanding how pesticides impact pollinators (May 19, 2018. Douglas County EMG Advanced Education Program; Lawrence, KS).

Is there such a thing as an "organic" pesticide? (October 7, 2017. Manhattan, KS).

Integrated pest management: what does it mean? (August 6, 2014. Advanced Master Gardener Training Program; Paola, KS).

Issues associated with invasive species and the impact of systemic insecticides on bees (June 19, 2014. Advanced Training for Master Gardeners; Olathe, KS).

Cultural and alternative methods of pest management (October 19, 2013. Advanced Master Gardener Training Program; Lawrence, KS).

"Getting rid of the welcome mat:" issues relating to invasive insects (October 4, 2013. Advanced Master Gardener Training; Manhattan, KS).

Dealing with arthropod pests "organically" (September 21, 2012. Advanced Master Gardener Training; Manhattan, KS).

"The hot zone:" climate change and insects (September 21, 2012. Advanced Master Gardener Training; Manhattan, KS).

Understanding pest-natural enemy interactions in landscapes and gardens (August 30, 2012. Advanced Master Gardener Training Session; Paola, KS).

Thursday evening presentation at the movies (September 30, 2010. Manhattan, KS).

Systemic insecticides and how they kill insect pests, and dealing with household insect and mite pests (July 1, 2010. Paola, KS).

- Understanding how natural enemies impact insect and mite pests in landscapes and gardens (July 15, 2010. Olathe, KS).
- The good, the bad and the ugly (October 10, 2009. Advanced Master Gardener Training Conference; Manhattan, KS).
- Beneficial insects: their role in regulating pest populations (October 10, 2009. Advanced Master Gardener Training Conference; Manhattan, KS).
- Biological control of insect pests (November 4, 2008. Topeka, KS).
- Biological control of arthropod pests (July 17, 2008. Olathe, KS).
- Bugs galore: insect pests of ornamental plants and how to deal with them (October 18, 2007. Advanced Master Gardener Training; Olathe, KS).
- Biological control of insects (September 29, 2007. Advanced Master Gardener Training Conference; Manhattan, KS).
- How insecticides and miticides work (September 29, 2007. Advanced Master Gardener Training Conference; Manhattan, KS).
- Arachnophobia—all about spiders (September 30, 2006. Advanced Master Gardener Training Conference; Manhattan, KS).
- Bugs galore—insect pests of ornamental plants (September 30, 2006. Advanced Master Gardener Training Conference; Manhattan, KS).
- 15. Presentations: Commercial Pesticide Applicator Training Programs—Kansas State University (Manhattan, KS) and University of Illinois (Champaign-Urbana, IL)**
- Impact of pesticides on bees (November 13, 2019. Commercial Pesticide Applicator Training Program Categories: 3A, 3B, and 3C [ornamentals and turfgrass]; Salina, KS).
- Managing turfgrass insect pests (November 13, 2019. Commercial Pesticide Applicator Training Program Category: 3B [ornamentals and turfgrass]; Salina, KS).
- Dealing with “munching machines”—caterpillar pests (November 6, 2019. Commercial Pesticide Applicator Recertification Workshop Categories 3A and 3B [ornamentals and turfgrass]; Wichita, KS).
- Impact of pesticides on bees (November 7, 2018. Commercial Pesticide Applicator Training Program Categories: 2, 3A, 3B, and 3C [ornamentals and turfgrass]; Salina, KS).
- Effectively controlling turfgrass insect pests (November 7, 2018. Commercial Pesticide Applicator Training Program Category: 3B [turfgrass]; Salina, KS).
- How to avoid getting ‘weighed-down’ by scales: scale insect pests of Kansas (October 31, 2018. Commercial Pesticide Applicator Recertification Workshop Category: 3A [ornamentals]; Wichita, KS).
- Pesticides and pollinators (November 15, 2017. Commercial Pesticide Applicators Training Program Categories: 2, 3A, 3B, and 3C [ornamentals and turfgrass]; Salina, KS).
- Update & review of ornamental & turfgrass pests (November 2, 2016. Commercial Pesticide Applicator Recertification Workshop—3A, 3B, and Registered Technician Credits; Wichita, KS).
- Pollinators and pesticides (November 3, 2016. Commercial Pesticide Applicators Training—2, 3A, 3B, and 3C; Salina, KS).
- Common insects of ornamentals & turf (November 4, 2015. Commercial Pesticide Applicator Recertification Workshop—3A, 3B, and Registered Technician Credits; Wichita, KS).
- Management of ornamental and turfgrass pests (November 3, 2015. Commercial Pesticide Applicators Training—3A, 3B, and 3C; Salina, KS).
- Systemic pesticides (November 3, 2015. Commercial Pesticide Applicators Training—3A, 3B, and 3C; Salina, KS).
- Management options for insect and mite pests of turfgrass (October 28, 2015. Pesticide Applicator Recertification Training For 3B—Turfgrass; Shawnee, KS).
- Understanding systemic pesticides (October 19, 2015. Pesticide Applicator Recertification Training For Category 3A—Ornamentals and Trees; Shawnee, KS).

- Common insects of ornamentals & turf—3A, 3B, and 3C and registered technicians (November 5, 2014. Commercial Pesticide Applicator Recertification Workshop; Wichita, KS).
- Common insects of ornamentals & turf—3A, 3B, and 3C (November 6, 2013. Commercial Pesticide Applicator Recertification Workshop; Wichita, KS).
- Management of insects and mites on ornamentals—2, 3A, and 3C (October 30, 2013. Commercial Pesticide Applicator Training Program; Manhattan, KS).
- Understanding systemic pesticides (September 19, 2013. Pesticide Applicator Recertification Training for Category 3A: Ornamentals and Trees; Shawnee, KS).
- Common insects of ornamentals & turf—3A, 3B, and 3C (November 7, 2012. Commercial Pesticide Applicator Recertification Workshop; Wichita, KS).
- Ornamental insect and mite pest management—2, 3A, and 3C (October 30, 2012. Commercial Pesticide Applicator Training Program; Hutchinson, KS).
- Pesticide mixtures for turf and ornamentals—2, 3A, 3B, and 3C (October 30, 2012. Commercial Pesticide Applicator Training Program; Hutchinson, KS).
- Common insects of ornamentals and turf—2, 3A, 3B, and 3C (November 9, 2011. Wichita, KS).
- Insect and mite pest management of ornamentals and turf—2, 3A, 3B, and 3C (November 2, 2011. McPherson, KS).
- Management considerations for insect and mite pests of turfgrass (October 12, 2011. Pesticide Applicator Recertification Training for Category 3B—Turfgrass; Shawnee, KS).
- Ornamental insect and mite pest management (November 10, 2010. Great Bend, KS).
- Management of insects & mites on ornamentals (November 12, 2009. Manhattan, KS).
- Management of insects & mites on ornamentals (November 10, 2009. Hays, KS).
- Calibration & calculation methods for profitability (November 4, 2009. Pesticide Recertification Workshop for 3A, 3B, 3C and Registered Technicians; Wichita, KS).
- Scale insects of trees and interior ornamentals (November 4, 2009. Pesticide Recertification Workshop 3A, 3B, 3C and Registered Technicians; Wichita, KS).
- Management of insect & mite pests in the landscape (October 14, 2009. Pesticide Applicator Recertification Training for Category 3A—Ornamentals and Tree; Olathe, KS).
- Insects of turf and ornamentals (November 12, 2008. Pesticide Recertification Workshop—3A, 3B, 3C & Registered Technicians; Wichita, KS).
- Dealing with arthropod pests on ornamentals (October 7, 2008. Topeka, KS).
- Dealing with arthropod pests on ornamentals (October 9, 2008. Garden City, KS).
- Ornamental arthropod pests (October 25, 2007. Emporia, KS).
- Turfgrass insects (February 17, 2006. Urbana, IL).
- Integrated pest management, ornamental and turfgrass insects, and interiorscape insects (April 14-15, 2004. Chicago, IL).
- Integrated pest management, ornamental and turfgrass insects, and interiorscape insects (April 16-17, 2003. Chicago, IL).
- Integrated pest management, ornamental and turfgrass insects, and interiorscape insects (April 16-17, 2002. Chicago, IL).
- Integrated pest management, and ornamental and turfgrass insects (March 5-6, 2002. Mundelein, IL).
- Integrated pest management, and ornamental and turfgrass insects (January 28-29, 2002. Springfield, IL).
- Integrated pest management, and ornamental and turfgrass insects (March 22-23, 2001. Crystal Lake, IL).
- Integrated pest management, and ornamental and turfgrass insects (February 15-16, 2001. Matteson, IL).
- General standards, personal protection, integrated pest management, and ornamental and turfgrass insects (January 25-26, 2001. Mount Vernon, IL).
- 16. Presentations: Entomology and Plant Pathology Agent Training—Kansas State University (Manhattan, KS)**
- Up-date on extension and research (January 19, 2018. Emporia, KS).

Up-date on extension and research (January 16, 2018. McPherson, KS).  
 Up-date on extension and research (February 22, 2017. Salina, KS).  
 Up-date on extension and research (March 14, 2017. Emporia, KS).  
 Up-date on extension and research (March 1, 2016. Scott City, KS).  
 Up-date on extension and research (February 24, 2016. Emporia, KS).  
 Systemic insecticides and pollinators (March 5, 2015. Garden City, KS).  
 Systemic insecticides and pollinators (February 10, 2015. Manhattan, KS).  
 Up-date on extension and research entomology (March 4, 2014. Chanute, KS).  
 Up-date on extension and research entomology (February 19, 2014. Hill City, KS).  
 Up-date on extension and research entomology (April 8, 2013. Manhattan, KS).  
 Up-date on extension and research entomology (March 5, 2013. Chanute, KS).  
 Up-date on extension and research entomology (February 15, 2012. Garden City, KS).  
 Up-date on extension and research entomology (February 14, 2012. Hill City, KS).  
 Up-date on extension and research entomology (March 3, 2010. Garden City, KS).  
 Up-date on extension and research entomology (March 2, 2010. Hill City, KS).  
 Up-date on extension and research entomology (March 9, 2010. Garden City, KS).  
 Up-date on extension and research entomology (March 8, 2010. Hill City, KS).  
 Up-date on extension and research entomology (March 13, 2009. Manhattan, KS).  
 Up-date on extension and research entomology (February 17, 2009. Chanute, KS).  
 Plant-essential oils: Are they viable pest control materials? (March 12, 2008. Hill City, KS).  
 Plant-essential oils: Are they viable pest control materials? (March 13, 2008. Garden City, KS).

**17. Presentations: Retail Garden Store Personnel Training—University of Illinois (Champaign-Urbana, IL)**

Insect identification (February 27, 2003. Hillsboro, IL).  
 Insect identification (February 13, 2003. Rock Island, IL).  
 Insect identification (February 25, 2002. Rockford, IL).  
 Insect identification (February 8, 2002. Decatur, IL).  
 Insect identification (February 7, 2002. Quincy, IL).  
 Insect identification (April 4, 2001. Champaign, IL).  
 Insect identification (March 14, 2001. Springfield, IL).  
 Insect identification (March 12, 2001. Bloomington, IL).

**18. e-GRO University Presentations (Electronic Grower Resources Online)**

Insect and mite pest identification and damage symptoms; October 2012.  
 How to scout for insects and mite pests; October 2012.  
 How to use biological controls effectively; October 2012.  
 How to use pesticides effectively; October 2012.  
 Sanitation; October 2012.

**19. Webinar Presentations**

Insect and mite pests of industrial hemp. Industrial Hemp Production 101 Webinar Series; Michigan State University Extension (July 25, 2019) [<https://events.anr.msu.edu/IndustrialHemp101/>].  
 The basics of scouting horticultural crops. Plant Health Virtual Conference; Powered by Greenhouse Management (February 13, 2019) [<http://planthealth.greenhousemag.com/page/schedule>].  
 How to implement a successful biological control program. Plant Health Virtual Conference; Powered by Greenhouse Management (February 13, 2019) [<http://planthealth.greenhousemag.com/page/schedule>].  
 Sanitation protocol: save money with a clean facility. Cannabis Business Times Increasing Profits Virtual Conference (October 25, 2018) [<http://profits.cannabisbusinesstimes.com/schedule>].  
 Neonicotinoid insecticides: how to survive without them. Sponsored by Ball Horticultural Company, PanAmerican Seed (September 6, 2018) [[www.ipmpas.com](http://www.ipmpas.com)]



- Lightning round: factors that can impact the success of biological control. Plant Health Virtual Conference; Powered by Greenhouse Management (February 14, 2018) [<http://planthealth.greenhousemag.com/page/schedule>].
- What is feeding on my plants? Diagnosing plant problems associated with insect and mites. Plant Health Virtual Conference; Powered by Greenhouse Management (February 14, 2018) [<http://planthealth.greenhousemag.com/page/schedule>].
- Insect control strategies for Greenhouse Growers. Greenhouse Product News Plant Health Management Webinars; Sponsored by BASF. October 4, 2016 [<http://cc.readytalk.com/play?id=69gl2s>].
- Insect and mite pests. Soil Health BootCamp and Applications to Vegetable Production Webinar Series. March 26, 2016 [[www.soilhealthbootcamp.com/webinars/insect-pests](http://www.soilhealthbootcamp.com/webinars/insect-pests)].
- Pollinators and beneficials. Soil Health BootCamp and Applications to Vegetable Production Webinar Series. March 25, 2016 [[www.soilhealthbootcamp.com/webinars/pollinators-and-beneficials](http://www.soilhealthbootcamp.com/webinars/pollinators-and-beneficials)].
- Rotation, rotation, rotation—tips for resistance management. Sponsored by Dow AgroSciences. September 23, 2015.
- Neonics & alternatives (encore presentation). Ball Publishing Webinar. March 10, 2015.
- Neonics: should you keep them or drop them? Ball Publishing Webinar. March 3, 2015.
- Don't get tripped by thrips: effective thrips management. 2<sup>nd</sup> International e-GRO Webinar Conference. Ready, Set, Let's Grow: Spring Annual Production Strategies. January 16, 2015. Presented by Proven Winners.
- Troubleshooting poinsettia problems. September 18, 2013. e-GRO University; collaboration between North Carolina State University, University of New Hampshire, and Kansas State University.
- How to efficiently and effectively review a journal manuscript. April 25, 2013. Entomological Society of America; Annapolis, MD.
- Everything you wanted to know about mites...but were afraid to ask! April 18, 2011. Integrated Horticultural Alliance Education Initiative Monthly Webinar: Scotts Professional Products; Marysville, OH.
- Whiteflies and spider mites. May 20, 2010. Integrated Horticultural Alliance Education Initiative Monthly Webinar: Scotts Professional Products; Marysville, OH.
- 20. Podcast Presentations**
- Resistance elimination. May 16, 2016. Greenhouse Management (Host: Cassie Neiden).
- Fungus gnats. March 29, 2016. Nursery Management (Host: Matt McClellan).
- Mealybugs. December 2, 2015. Greenhouse Management (Host: Matt McClellan).
- Whiteflies. October 13, 2015. Greenhouse Management (Host: Chris Mosby).
- Thrips. September 23, 2015. Greenhouse Management (Host: Chris Mosby).
- Mites. August 12, 2015. Greenhouse Management (Host: Chris Mosby).
- Aphids. June 6, 2015. Greenhouse Management (Host: Chris Mosby).
- Case study: migration of pests into greenhouse. November 5, 2013. FloriCAST Episode 5 (Greenhouse Grower; Willoughby, OH).
- Case study: leaching out systemic insecticide. August 6, 2013. FloriCAST Episode 5 (Greenhouse Grower; Willoughby, OH).
- Case study: herbicide injury. May 7, 2013. FloriCAST Episode 5 (Greenhouse Grower; Willoughby, OH).
- Pesticide shelf-life. January 30, 2013. FloriCAST Episode 5 (Greenhouse Grower; Willoughby, OH).
- Tank-mixing problem. August 15, 2012. FloriCAST Episode 4 (Greenhouse Grower; Willoughby, OH).
- Using the wrong biological control agent for aphids. August 22, 2012. FloriCAST Episode 4 (Greenhouse Grower; Willoughby, OH).
- Improper pH of spray solution. June 3, 2012. FloriCAST Episode 4 (Greenhouse Grower; Willoughby, OH).
- Improper rotation of pesticides. February 14, 2012. FloriCAST Episode 4 (Greenhouse Grower; Willoughby, OH).
- Surfactants. February 8, 2012. FloriCAST Episode 4 (Greenhouse Grower; Willoughby, OH).

- Biological control of aphids. November 16, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Case of the late-season whitefly problem (co-author K. A. Williams). September 16, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Biological control of whiteflies. September 14, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Biological control of fungus gnats. August 24, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Biological control of western flower thrips. July 6, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Weed management in greenhouses. May 18, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Pesticide mixtures. March 23, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Systemic insecticides. February 2, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- How to identify insects on yellow sticky cards. January 5, 2011. FloriCAST Episode 3 (Greenhouse Grower; Willoughby, OH).
- Biological control. November 24, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Resistance management. October 20, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Beneficial or insect-killing nematodes and fungi. September 22, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- What impacts the performance of pest control materials. September 1, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Caterpillars. August 25, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Mealybugs. May 26, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Diagnosing insect and mite pest problems. March 31, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Eriophyid mites. March 3, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Leafminers. February 10, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Bulb mites. January 20, 2010. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Mode of action. November 18, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Insect growth regulators. October 21, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Whiteflies. September 23, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Fungus gnats. August 19, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Broad mite. April 29, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Western flower thrips on geraniums. March 25, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Twospotted spider mite on geraniums. March 18, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Shore flies. February 11, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Aphids. January 28, 2009. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Sanitation. December 2008. FloriCAST Episode 2 (Greenhouse Grower; Willoughby, OH).
- Whiteflies. October 2008. FloriCAST Episode 1 (Greenhouse Grower; Willoughby, OH).

## **21. Educational Videos**

- How to correctly diagnosis insect and mite pest problems (e-GRO Instructional Videos; Taped on April 28, 2016. <http://www.youtube.com/watch?v=gPrOf3wyfyk>).
- Understanding pesticide labels (e-GRO Instructional Videos; Taped on April 28, 2016. <https://www.youtube.com/watch?v=pbGNGmkgeuQ>).
- Western flower thrips: biology and management (e-GRO Instructional Videos; Taped on April 28, 2016. <https://www.youtube.com/watch?v=9FubM8r7YNE>).

How to effectively scout for pest problems (e-GRO Instructional Videos; Taped on April 28, 2015.  
<https://youtu.be/hZCt1kTVmiA>).

How to implement a biological control program (e-GRO Instructional Videos; Taped on April 28, 2015.  
[https://youtu.be/s8lCs0W\\_M1U](https://youtu.be/s8lCs0W_M1U)).

Ways to maximize pesticide performance (e-GRO Instructional Videos; Taped on April 28, 2015.  
<https://youtu.be/wG4ttlldvJM>).

## **22. On-Line Educational Courses**

Biological control for greenhouse growers 2017 [Instructors: Heidi Lindberg (Wollaeger) (Michigan State University Extension) and Raymond Cloyd (Kansas State University Extension)]  
 (http://events.anr.msu.edu/BiologicalControlforGreenhouseGrowers/).

## **23. Pest Detector Workshops—Kansas State University (Manhattan, KS) and Kansas Department of Agriculture (Topeka, KS).**

Emerald ash borer (March 8, 2012. Topeka, KS).

Emerald ash borer (November 19, 2010. Hays, KS).

Emerald ash borer (November 12, 2010. Emporia, KS).

Emerald ash borer (May 11, 2010. Wichita, KS).

## **24. Tree Health Bootcamp Workshops—Kansas State University (Manhattan, KS)**

Diagnosing common insect and mite pest problems of trees and shrubs (August 23, 2013. Parsons, KS).

Diagnosing common insect and mite pest problems of trees and shrubs (July 31, 2013. Wichita, KS).

Diagnosing common insect and mite pest problems of trees and shrubs (June 26, 2013. Manhattan, KS).

Diagnosing common insect and mite pest problems of trees and shrubs (May 14, 2013. Hays, KS).

## **25. Soil Health Bootcamp Workshops—Kansas State University (Manhattan, KS)**

Introduction of arthropods (September 27, 2017. Fort Scott, KS).

Insects/diseases—hands-on scouting/sampling (May 25, 2017. Hays, KS).

Biocontrol project; and insects—scouting/sampling (May 26, 2016. Courtland, KS).

Insect pests and pollinators; and insects—hands-on scouting/sampling (May 11, 2016. Olathe, KS).

## **26. Media Releases (Radio, Phone, and Television Interviews)**

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. October 28, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. October 16, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 3, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 19, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 6, 2019.

Radio interview: Update on Insects [AM 580 WIBW; Topeka, KS (Cameron Rees, Skinner Garden Store, Inc., Topeka, KS)]. July 27, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 23, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 8, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 17, 2019.

Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Derek deBoer (Blueville Nursery; Manhattan, KS)]. June 7, 2019.

Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 3, 2019.

- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 13, 2019.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 29, 2019.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 15, 2019.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 25, 2019.
- Radio interview: Update on Insects [AM 580 WIBW; Topeka, KS (Cameron Rees, Skinner Garden Store, Inc., Topeka, KS)]. March 3, 2019.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. November 5, 2018.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. September 29, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 10, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 27, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 13, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 30, 2018.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Derek deBoer (Blueville Nursery; Manhattan, KS)]. July 21, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 16, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 18, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 11, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 14, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 7, 2018.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. May 5, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 23, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 27, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 6, 2018.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. December 11, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. November 20, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. October 30, 2017.

- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 18, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 11, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 28, 2017.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. August 12, 2017.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. July 29, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 19, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 26, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 19, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 22, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 12, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 24, 2017.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. April 15, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 27, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 6, 2017.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. December 5, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. November 28, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. November 1, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 19, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 30, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 21, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 7, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 31, 2016.
- Radio interview (“Bug Guy”): Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. May 21, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 17, 2016.

- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 26, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 29, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 15, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. February 3, 2016.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. November 24, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. November 10, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 28, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. September 8, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 18, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 11, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 29, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 2, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 26, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 4, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 20, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 30, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 9, 2015.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. March 2, 2015.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. November 7, 2014.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. May 23, 2014.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 29, 2014.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. June 17, 2014.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. May 24, 2014.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. May 13, 2014.

- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. April 26, 2014.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. October 15, 2013.
- Phone interview: Future of pest controls (Carol Miller; Editor, *Today's Garden Center*). September 5, 2013.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 7, 2013.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. July 27, 2013.
- Phone interview: Chiggers (Bruce Giles; *Lawrence Journal World*). July 26, 2013.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 10, 2013.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. June 15, 2013.
- Phone interview: Arborist: Plant trees to help offset thinning of Wichita's canopy (Annie Calovich; *The Wichita Eagle*). March 19, 2013.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. August 14, 2012.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. July 21, 2012.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KKSU 580 AM, Eric Atkinson (Extension Radio Specialist)]. July 10, 2012.
- Radio interview: Rose Rosette Disease (Ian Cummins; *Kansas City Star*, Kansas City, MO). May 29, 2012.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. May 19, 2012.
- Radio interview: General Insects (Chris Frank; KAKE-TV Channel, Wichita, KS), April 30, 2012.
- Radio interview: General Insects (Gene Countryman; KNSS 1330, Wichita, KS), April 29, 2012.
- Radio interview: Update on Insects [Agriculture Today (K-State Network—Horticulture Segment) KFRM 550 AM/KLOE 790 AM, Eric Atkinson (Extension Radio Specialist)]. November 22, 2011.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. September 17, 2011.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. April 2, 2011.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. August 21, 2010.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. April 17, 2010.
- Radio interview: Thousand Cankers (KSN News 27, Topeka, KS). August 2, 2010.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. June 13, 2009.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. October 31, 2008.
- Radio interview: Update on Insects [KMAN 1350 AM, Nancy Moore (Blueville Nursery; Manhattan, KS)]. January 19, 2008.
- Radio interview: Plant Protection (AM Newstalk 1360: Jane Nugent, Pittsburgh, PA; September 1, 2007).
- Radio interview: Update on Insects (KFRM and KGGF: Jeff Wickman, Manhattan, KS; August 27, 2007).
- Radio interview: Integrated Pest Management (WFPL 89.3 FM: Louisville's NPR Station, Home Grown; June 11, 2005).
- Radio interview: Integrated Pest Management (KSEV 700: Livable Garden, Houston, TX; May 21, 2005).



Radio interview: Update on Insect Pests and Integrated Pest Management (WGN: Chicago, IL; April 23, 2005).

Radio interview: Integrated Pest Management (KSCO: Santa Cruz, CA; March 18, 2005).

Television interview: Update on Insect Pests (WCIA Morning Show: Champaign, IL; July 7, 2005).

## 27. Emails and Phone Calls

January 1 through December 31, 2019=460 (these are the ones that were recorded).

January 1 through December 31, 2018=482 (these are the ones that were recorded).

January 1 through December 31, 2017=513 (these are the ones that were recorded).

January 1 through December 31, 2016=447 (these are the ones that were recorded).

January 1 through December 31, 2015=421 (these are the ones that were recorded).

January 1 through December 31, 2014=317 (these are the ones that were recorded).

January 1 through December 31, 2013=423 (these are the ones that were recorded).

January 1 through December 31, 2012=478 (these are the ones that were recorded).

January 1 through December 31, 2011=420 (these are the ones that were recorded).

January 1 through December 31, 2010=364 (these are the ones that were recorded).

## RESEARCH

### 1. Publications: Scientific Refereed and Extension-Related Peer-Reviewed Articles

Li, Y., R. A. Cloyd, and N. M. Bello. 2019. Effect of integrating the entomopathogenic fungus (Hypocreales: Cordycipitaceae) and the rove beetle (Coleoptera: Staphylinidae) in suppressing western flower thrips (Thysanoptera: Thripidae) populations under greenhouse conditions. *J. Econ. Entomol.* 112: 2085-2093.

Cloyd, R. A. 2019. Effects of predators on the belowground life stages (prepupae and pupae) of the western flower thrips, *Frankliniella occidentalis* (Thripidae: Thysanoptera): a review. *Adv. Entomol.* 7: 71-80.

Li, Y., R. A. Cloyd, and N. M. Bello. 2019. Effect of insecticide drench applications on western flower thrips, *Frankliniella occidentalis*, pupae in growing media. *HortScience* 54: 890-895.

Lakshman, D. K., R. A. Cloyd, and G. A. Chastagner. 2019. Integrated management of diseases and pests on ornamental geophytes: challenges and progress. *Acta Hortic.* 1237: 13-31.

Herrick, N. J., R. A. Cloyd, and A. L. Raudenbush. 2019. Systemic insecticide applications: effects on citrus mealybug (Hemiptera: Pseudococcidae) populations under greenhouse conditions. *J. Econ. Entomol.* 112: 266-276.

Cloyd, R. A., and N. J. Herrick. 2018. Effects of pesticides on the survival of rove beetle (Coleoptera: Staphylinidae) and insidious flower bug (Hemiptera: Anthocoridae) adults. *J. Econ. Entomol.* 111: 78-88.

Herrick, N. J., and R. A. Cloyd. 2018. Effects of growing medium type and predator:prey ratio on rove beetle, *Dalotia coriaria* (Coleoptera: Staphylinidae), adult predation on fungus gnat, *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae), larvae. *HortScience* 53: 1441-1446.

Lindberg, H. M., R. A. Cloyd, and E. S. Runkle. 2018. Floriculture college of knowledge online course series: demographics and impact. *J. Nat. Assoc. Co. Agri. Agents* 11(2): <https://www.nacaa.com/journal/index.php?jid=888>

Herrick, N. J., and R. A. Cloyd. 2017. Effects of growing medium type and moisture level on predation by adult rove beetle, *Dalotia coriaria* (Coleoptera: Staphylinidae), on fungus gnat, *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae), larvae under laboratory and greenhouse conditions. *HortScience* 52: 736-741.

Herrick, N. J., and R. A. Cloyd. 2017. Effect of systemic insecticides on the citrus mealybug (Hemiptera: Pseudococcidae) feeding on coleus. *J. Entomol. Sci.* 52: 104-118.

Cloyd, R. A., and N. J. Herrick. 2017. Ecology and role of the rove beetle, *Dalotia coriaria*, and insidious flower bug, *Orius insidiosus*, in greenhouse biological control programs. *Adv. Entomol.* 5: 115-126.



- Herrick, N. J., and R. A. Cloyd. 2017. Direct and indirect effects of pesticides on the insidious flower bug (Hemiptera: Anthocoridae) under laboratory conditions. *J. Econ. Entomol.* 110: 931-940.
- Cloyd, R. A. 2016. Western flower thrips (Thysanoptera: Thripidae) and insecticide resistance: an overview and strategies to mitigate insecticide resistance development. *J. Entomol. Sci.* 51: 257-273.
- Kivett, J. M., R. A. Cloyd, and N. M. Bello. 2016. Evaluation of entomopathogenic fungi against the western flower thrips (Thysanoptera: Thripidae) under laboratory conditions. *J. Entomol. Sci.* 51: 274-291.
- Herrick, N. J., and R. A. Cloyd. 2016. Western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae): evaluation of potential attraction to vanilla extract under laboratory and greenhouse conditions. *HortScience* 51: 525-529.
- Cloyd, R. A. 2015. Western flower thrips management in greenhouse production systems in the 21<sup>st</sup> century: alternative strategies need be considered. *Acta Hort.* 1104: 381-394.
- Everman, E. R., R. A. Cloyd, C. Copland, and T. J. Morgan. 2015. First report of spotted wing drosophila, *Drosophila suzukii* Matsumura (Diptera: Drosophilidae) in Kansas. *J. Kansas Entomol. Soc.* 88: 128-133.
- Echegaray, E. A., R. A. Cloyd, and J. R. Nechols. 2015. Rove beetle (Coleoptera: Staphylinidae) predation on *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae). *J. Entomol. Sci.* 50: 225-237.
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- Cloyd, R. A., and A. L. Raudenbush. 2014. Efficacy of binary pesticide mixtures against western flower thrips. *HortTechnology* 24(4): 449-456.
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- Hogendorp, B. K., and R. A. Cloyd. 2013. Effect of potassium bicarbonate (MilStop<sup>®</sup>) and insecticides on the citrus mealybug, *Planococcus citri* (Risso), and the natural enemies *Leptomastix dactylopii* (Howard) and *Cryptolaemus montrouzieri* (Mulsant). *HortScience* 48(12): 1513-1517.
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- Willmott, A. L., R. A. Cloyd, and K. Y. Zhu. 2013. Efficacy of pesticide mixtures against the western flower thrips (Thysanoptera: Thripidae) under laboratory and greenhouse conditions. *J. Econ. Entomol.* 106(1): 247-256.
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## 2. Publications: Book Reviews

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## 3. Publications: Efficacy Trials

- Cloyd, R. A. 2007. Efficacy of selected insecticides and MilStop™ for control of citrus mealybug. *Arthropod Management Test* 32: G34.
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#### 4. Oral Presentations

- Systemic insecticides and mealybugs: what is going on? R. Cloyd and N. Herrick. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 17, 2019. St. Louis, MO).
- Educating greenhouse growers on biological control through an international online course. H. Lindberg<sup>1</sup> and R. Cloyd<sup>2</sup>. <sup>1</sup>Michigan State University Extension; West Olive, MI. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 17, 2019. St. Louis, MO).
- Impact of cover crops on soil arthropods in high tunnel systems. A. Skinner<sup>1</sup>, R. A. Cloyd<sup>2</sup>, D. Presley<sup>3</sup>, and C. L. Rivard<sup>1</sup>. <sup>1</sup>Department of Horticulture and Natural Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Agronomy; Kansas State University, Manhattan, KS (American Society for Horticultural Science Annual Conference; July 24, 2019. Las Vegas, NV).
- Effect of integrating the entomopathogenic fungus, *Beauveria bassiana*, and the rove beetle, *Dalotia coriaria*, in suppressing western flower thrips, *Frankliniella occidentalis*, populations under greenhouse conditions. Y. Li and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 12, 2018. Vancouver, BC, Canada).
- Effects of growing medium type on survival of fungus gnat, *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae), larvae and predation by rove beetle, *Dalotia coriaria*, adults. N. Herrick and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 11, 2018. Vancouver, BC, Canada).
- Effects of pesticides on the survival of rove beetle, *Dalotia coriaria*, and insidious flower bug, *Orius insidiosus* adults. R. A. Cloyd and N. Herrick. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 5, 2017. Denver, CO).
- Plant-derived volatile essential oils and western flower thrips, *Frankliniella occidentalis*. N. Herrick and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (XXV International Congress of Entomology; September 30, 2016. Orlando, FL).
- Rove beetle (*Dalotia coriaria*) predation on the fungus gnat, *Bradysia* sp. nr. *coprophila*. R. Cloyd, E. Echegaray, and J. Nechols. Department of Entomology; Kansas State University, Manhattan, KS (XXV International Congress of Entomology; September 30, 2016. Orlando, FL).
- “Suck-it-up”: are systemic insecticides really effective against mealybugs? R. Cloyd and A. Raudenbush. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 15, 2015. Minneapolis, MN).

- Efficacy of rotation programs against western flower thrips, *Frankliniella occidentalis*, that include entomopathogenic fungi. J. Kivett<sup>1</sup>, R. Cloyd<sup>1</sup>, and N. Bello<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Statistics; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 17, 2014. Portland, OR).
- Effects of physical barriers in managing fungus gnats (*Bradysia* spp.). A. L. Willmott<sup>1</sup>, R. A. Cloyd<sup>1</sup>, and E. R. Echegaray<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Oregon State University; Hermiston, OR (Entomological Society of America Annual Meeting; November 10, 2013. Austin, TX).
- Residual efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri*. A. L. Willmott, R. A. Cloyd, and K. Y. Zhu. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 13, 2012. Knoxville, TN).
- Pesticide mixtures and western flower thrips, *Frankliniella occidentalis*. A. L. Willmott, R. A. Cloyd, and K. Y. Zhu. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 13, 2012. Knoxville, TN).
- Integrating beneficial arthropods and pesticides: An academic perspective. R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 11, 2012. Knoxville, TN).
- Pesticides and biological control: Are these two strategies compatible? R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (96<sup>th</sup> Annual Meeting of the Pacific Branch-Entomological Society of America; March 26, 2012. Portland, OR).
- Efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) in protected environments. A. L. Willmott, R. A. Cloyd, and K. Y. Zhu. Department of Entomology; Kansas State University, Manhattan, KS (17<sup>th</sup> Annual K-State Research Forum; March 8, 2012. Manhattan, KS). First place finish in student oral presentation.
- Feeding preference of Southern pine sawyer beetle on four species of pine. M. S. Wilson<sup>1</sup>, J. J. Griffin<sup>1</sup>, and R. A. Cloyd<sup>2</sup>. <sup>1</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (57<sup>th</sup> Annual Southern Nursery Association Horticultural Research Conference; January 18, 2012. Mobile, AL). First place finish in student competition.
- Effects of sugar and sugar-based compounds against the western flower thrips, *Frankliniella occidentalis*. N. DePaola, R. A. Cloyd, and J. D. Gillespie. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 13, 2011. Reno, NV).
- Influence of light intensity on the movement and efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri*, and sweet potato whitefly B-biotype, *Bemisia tabaci*. R.A. Cloyd<sup>1</sup>, K. A. Williams<sup>2</sup>, F. J. Byrne<sup>3</sup>, and K. E. Kemp<sup>4</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Entomology; University of California—Riverside, Riverside, CA. <sup>4</sup>Department of Statistics; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 13, 2011. Reno, NV).
- Impact of pesticides and plant growth regulators on the rove beetle, *Atheta coriaria*. E. R. Echegaray and R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 13, 2011. Reno, NV).
- Efficacy of pesticide mixtures on the western flower thrips (*Frankliniella occidentalis*). A. L. Willmott, R. A. Cloyd, and K. Y. Zhu. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 14, 2011. Reno, NV).
- Direct effects of pesticides and plant growth regulators on the rove beetle, *Atheta coriaria*. E. R. Echegaray and R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 14, 2011. Reno, NV).

- Effect of light intensity on the efficacy of systemic insecticides in suppressing populations of the citrus mealybug, *Planococcus citri*, and sweet potato whitefly B-biotype, *Bemisia tabaci*. R.A. Cloyd<sup>1</sup>, K. A. Williams<sup>2</sup>, F. J. Byrne<sup>3</sup>, and K. E. Kemp<sup>4</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Entomology; University of California—Riverside, Riverside, CA. <sup>4</sup>Department of Statistics; Kansas State University, Manhattan, KS (American Society for Horticultural Science Annual Conference; September 27, 2011. Waikoloa, HI).
- Enhancing arthropod biodiversity in landscapes and gardens. R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (North Central Branch Entomological Society of America Annual Meeting; March 14, 2011. Minneapolis, MN).
- Life history parameters of the rove beetle, *Atheta coriaria*, and suitability as a biological control agent against the fungus gnat, *Bradysia* sp. nr. *coprophila*. E. R. Echegaray and R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; December 15, 2010. San Diego, CA).
- Effects of light intensity on pac choi (*Brassica rapa*) plant chemistry and growth responses of diamondback moth (*Plutella xylostella*). W. A. Johnson<sup>1</sup>, J. R. Nechols<sup>1</sup>, R. A. Cloyd<sup>1</sup>, M. M. Kennelly<sup>2</sup>, and D. Rotenberg<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Plant Pathology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; December 13, 2010. San Diego, CA).
- Dealing with fungus gnats (*Bradysia* spp.) in greenhouse production systems. R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; December 12, 2010. San Diego, CA).
- Effect of greenhouse light intensity and insect herbivory on plant chemistry of pac choi (*Brassica rapa*) and diamondback moth (*Plutella xylostella*) development. W.A. Johnson, J. R. Nechols, and R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (North Central Branch Entomological Society of America Meeting; March 15, 2010. Louisville, KY).
- Effect of pesticides on rove beetle, *Atheta coriaria* Kraatz (Coleoptera: Staphylinidae), adult survival in growing medium. R. A. Cloyd<sup>1</sup>, N. Timmons<sup>1</sup>, J. Goebel<sup>1</sup>, and K. Kemp<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Statistics; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; December 13, 2009. Indianapolis, IN).
- Silicon-based fertilizer applications: can they prevent outbreaks of insect pests? R. A. Cloyd<sup>1</sup> and B. Hogendorp<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; December 16, 2009. Indianapolis, IN).
- Are silicon-based fertilizer treatments effective against insect pests? R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (85<sup>th</sup> Annual Meeting of the Kansas Entomological Society; April 25, 2009. Manhattan, KS).
- Effect of silicon-based fertilizer applications on insect pests of greenhouses. R. A. Cloyd<sup>1</sup> and B. K. Hogendorp<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (North Central Branch Entomological Society of America Annual Meeting; March 17, 2009. St. Louis, MO).
- Effect of light intensity on the systemic activity of neonicotinoid-based insecticides in two horticultural crops, and control of sweet potato whitefly B-biotype, and citrus mealybug. J. Goebel<sup>1</sup>, R. A. Cloyd<sup>2</sup>, K. A. Williams<sup>1</sup>, F. J. Byrne<sup>3</sup>, and K. Kemp<sup>4</sup>. <sup>1</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>3</sup>University of California—Riverside, Department of Entomology; Riverside, CA. <sup>4</sup>Department of Statistics; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 16, 2008. Reno, NV).



- Effect of silicon applications on citrus mealybug, *Planococcus citri* and greenhouse whitefly, *Trialeurodes vaporariorum*. B. Hogendorp<sup>1</sup> and R. A. Cloyd<sup>2</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; December 9, 2007. San Diego, CA).
- Effect of neonicotinoid-based insecticides on beneficial arthropods of ornamentals. R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; December 9, 2007. San Diego, CA).
- Quality assessment of commercially available entomopathogenic nematodes. R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Maintaining Worldwide Connections for Quality Assurance in Arthropod and Nematode Rearing; October 29, 2007. Montreal, Canada).
- Effect of diatomaceous earth and *Trichoderma harzianum* T-22 on the fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner). R. A. Cloyd<sup>1</sup> and A. Dickinson<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (North Central Branch Entomological Society of America Annual Meeting; March 27, 2007. Winnipeg, Canada).
- Use of entomopathogenic nematodes in greenhouses: Impact of quality control. E. X. Caamano and R. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (December 11, 2006. Entomological Society of America Annual Meeting; December 11, 2006. Indianapolis, IN).
- Egg laying preference of female fungus gnat, *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae) on different commercially available bagged growing media. T. Meers and R. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; November 14, 2004. Salt Lake City, UT).
- Host plant resistance of Rosa ‘Radrazz’ knockout, Rosa ‘Crimson Bouquet,’ and Rosa ‘Love and Peace’ to *Popilla japonica* adult leaf feeding. T. Tiddens<sup>1</sup> and R. Cloyd<sup>2</sup>. <sup>1</sup>Chicago Botanic Garden; Glencoe, IL. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; October 29, 2003. Cincinnati, OH).
- Egg laying preference of female fungus gnat, *Bradysia coprophila* (Comstock), on three different commercially available bagged growing media. T. Meers<sup>1</sup>, R. Cloyd<sup>1</sup>, and E. R. Zaborski<sup>2</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (Entomological Society of America Annual Meeting; October 29, 2003. Cincinnati, OH).
- Effect of tank mixes on the efficacy of biorational pest control materials in controlling western flower thrips, *Frankliniella occidentalis* (Pergande). D. F. Warnock and R. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; October 27, 2003. Cincinnati, OH).
- Evaluation of lethal and sub-lethal effects of greenhouse pesticides on the soil-dwelling predatory mite, *Hypoaspis miles*. A. R. Cabrera<sup>1</sup>, R. Cloyd<sup>1</sup>, and E. R. Zaborski<sup>2</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (Entomological Society of America Annual Meeting; October 27, 2003. Cincinnati, OH).
- Color preference of western flower thrips, *Frankliniella occidentalis*, for selected cut flower species. M. Blumthal, R. Cloyd, and D. F. Warnock. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; October 27, 2003. Cincinnati, OH).
- Compatibility of natural enemies and pesticides. R. Cloyd<sup>1</sup>, K. B. Rothwangl<sup>2</sup>, and R. N. Wiedenmann<sup>3</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Department of Entomology; University of Illinois, Urbana, IL. <sup>3</sup>Center for Economic Entomology; Champaign, IL (Entomological Society of America Annual Meeting; October 26, 2003. Cincinnati, OH).

- Compatability of the citrus mealybug parasitoid, *Leptomastix dactylopii*, with low-risk insecticides. K. B. Rothwangl<sup>1</sup>, R. A. Cloyd<sup>2</sup>, and R. N. Wiedenmann<sup>3</sup>. <sup>1</sup>Department of Entomology; University of Illinois, Urbana, IL. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL, <sup>3</sup>Center for Economic Entomology; Champaign, IL (North Central Branch Entomological Society of America Annual Meeting; March 24, 2003. Madison, WI).
- Evaluation of lethal and sub-lethal effects of greenhouse pesticides on the soil-dwelling predatory mite, *Hypoaspis miles*. A. R. Cabrera<sup>1</sup>, R. A. Cloyd<sup>1</sup>, and E. R. Zaborski<sup>2</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (North Central Branch Entomological Society of America Annual Meeting; March 24, 2003. Madison, WI).
- Sources of fungus gnat, *Bradysia* spp. (Diptera: Sciaridae) contamination in commercial floriculture greenhouses. R. A. Cloyd<sup>1</sup> and E. R. Zaborski<sup>2</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (Entomological Society of America Annual Meeting; November 17, 2002. Fort Lauderdale, FL).
- Effect of variegation on phloem composition of *Coleus* and life history characteristics of citrus mealybug. C. S. Sadof<sup>1</sup>, Jonathon Neal<sup>1</sup>, and R. A. Cloyd<sup>2</sup>. <sup>1</sup>Department of Entomology; Purdue University, West Lafayette, IN. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; December 10, 2001. San Diego, CA).
- Fenpyroximate: Another METI for mite management? M. Bell<sup>1</sup> and R. A. Cloyd<sup>2</sup>. <sup>1</sup>SePRO Corporation; Carmel, IN. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; December 10, 2001. San Diego, CA).
- Assessing effects of plant architecture on the behavior of the citrus mealybug parasitoid, *Leptomastix dactylopii*. R. A. Cloyd. Department of Entomology; Purdue University, West Lafayette, IN (Entomological Society of America Annual Meeting; November 10, 1998. Las Vegas, NV).
- Effects of *Coleus blumei* architecture on attack rates of a citrus mealybug predator and parasitoid. C. S. Sadof, J. F. Garcia, R. A. Cloyd, and R. J. O'Neil. Department of Entomology; Purdue University, West Lafayette, IN (Entomological Society of America Annual Meeting; November 9, 1998. Las Vegas, NV).
- Effects of *Coleus blumei* architecture on the behavior of the citrus mealybug parasitoid, *Leptomastix dactylopii*. R. A. Cloyd and C. S. Sadof. Department of Entomology; Purdue University, West Lafayette, IN (Entomological Society of America Annual Meeting; December 19, 1997. Nashville, TN).
- Flower quality, flower number, and western flower thrips, *Frankliniella occidentalis* (Pergande) density on transvaal daisy, *Gerbera jamesonii* treated with Pinpoint 15G and Marathon 1G. R. A. Cloyd and C. S. Sadof. Department of Entomology; Purdue University, West Lafayette, IN (Entomological Society of America Annual Meeting; December 10, 1996. Louisville, KY).
- Trichome density differences and bean leaf beetle, *Cerotoma trifurcata* (Forster), feeding behavior on soybean pods. R. A. Cloyd, C. R. Edwards, and L. W. Bledsoe. Department of Entomology; Purdue University, West Lafayette, IN (Indiana Academy of Science Annual Meeting; November 8, 1996. Greencastle, IN).
- Evaluation of trichome density levels and *Cerotoma trifurcata* (Forster), feeding preference on soybean pods. R. A. Cloyd, C. R. Edwards, and L. W. Bledsoe. Department of Entomology; Purdue University, West Lafayette, IN (Entomological Society of America Annual Meeting; December 20, 1995. Las Vegas, NV).
- Evaluation of trichome density levels on soybean pods. R. A. Cloyd, C. R. Edwards, M. N. Anwar, and N. N. Troxclair. Department of Entomology; Purdue University, West Lafayette, IN (North Central Branch Entomological Society of America Annual Meeting; March 24, 1993. Fargo, ND).

## 5. Poster Presentations

- Redheaded flea beetle: a major insect pest of nursery production systems. N. Herrick and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 20, 2019. St. Louis, MO).

- Effect of spray volume and application frequency on insecticide efficacy against western flower thrips (*Frankliniella occidentalis*) and citrus mealybug (*Planococcus citri*) under greenhouse conditions. D. Radosevich and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 18, 2019. St. Louis, MO).
- Impact of cover crops on soil arthropods in high tunnel systems. A. Skinner<sup>1</sup>, R. A. Cloyd<sup>2</sup>, D. Presley<sup>3</sup>, and C. L. Rivard<sup>1</sup>. <sup>1</sup>Department of Horticulture and Natural Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Agronomy; Kansas State University, Manhattan, KS (American Society for Horticultural Science Annual Conference; July 24, 2019. Las Vegas, NV).
- Integrating cover crops in high tunnels and monitoring belowground arthropods. A. Skinner<sup>1</sup>, R. Cloyd<sup>2</sup>, K. Jacobsen<sup>1</sup>, J. Grossman<sup>1</sup>, and C. Rivard<sup>1</sup>. <sup>1</sup>Department of Horticulture and Natural Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (Great Plains Growers Conference & Trade Show; January 10-12, 2019. St. Joseph, MO).
- Effect of searching area, predator-prey ratio, and predator-prey number on predation of western flower thrips, *Frankliniella occidentalis*, by the rove beetle, *Dalotia coriaria*. Y. Li and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 12, 2018. Vancouver, BC, Canada).
- Make a difference? Make an IPM impact graphic. F. L. Miller<sup>1</sup>, B. McCornack<sup>1</sup>, W. Johnson<sup>1</sup>, S. Zukoff<sup>1</sup>, C. Boyer<sup>2</sup>, R. Cloyd<sup>1</sup>, J. Hoyle<sup>2</sup>, M. Kennelly<sup>3</sup>, and A. Teeter<sup>4</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Horticulture and Natural Resources; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Plant Pathology; Kansas State University, Manhattan, KS. <sup>4</sup>Office of Educational Innovation and Evaluation; Kansas State University, Manhattan, KS (March 21, 2018. 9<sup>th</sup> International IPM Symposium: Improving Health, Environment, and Global Sustainability; Baltimore, MD).
- Effect of western flower thrips, *Frankliniella occidentalis* pupal stages, predator-prey ratios, and predator-prey numbers on adult rove beetle, *Dalotia coriaria* predation. Y. Li and R. Cloyd. Department of Entomology; College of Agriculture, Kansas State University (Kansas State University Research and Extension; November 9, 2017. Manhattan, KS).
- Predation of rove beetle, *Dalotia coriaria* adult on western flower thrips, *Frankliniella occidentalis* pupal stage. Y. Li and R. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 7, 2017. Denver, CO).
- Effects of growing medium type and moisture level on predation by adult rove beetle, *Dalotia coriaria* (Coleoptera: Staphylinidae), on fungus gnat, *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae), larvae under laboratory and greenhouse conditions. R. Cloyd and N. Herrick. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 7, 2017. Denver, CO).
- Educating greenhouse growers on biological control through an international online course. H. M. Lindberg<sup>1</sup> and R. A. Cloyd<sup>2</sup>. <sup>1</sup>Michigan State University Extension; West Olive, MI. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (IOBC-WPRS Working Group: Integrated Control in Protected Crops, Temperate Climate; June 5, 2017. Niagara Falls, Canada).
- Rove beetle, *Dalotia coriaria* adult predation on western flower thrips, *Frankliniella occidentalis*. Y. Li and R. A. Cloyd. Department of Entomology; College of Agriculture, Kansas State University (K-State Graduate Research, Arts, and Discovery Forum; March 30, 2017. Manhattan, KS).
- Pine sawyer beetle (*Monochamus carolinensis*) feeding preference on eleven pinaceae taxa. M. S. Wilson<sup>1</sup>, J. J. Griffin<sup>1</sup>, R. A. Cloyd<sup>2</sup>, and T. C. Todd<sup>3</sup>. <sup>1</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Plant Pathology; Kansas State University, Manhattan, KS (American Society for Horticultural Sciences Annual Conference; August 5, 2015. New Orleans, LA).

- Promoting IPM and enhancing decision-making among Kansas stakeholders through innovative programming. F. Miller<sup>1</sup>, B. McCornack<sup>1</sup>, S. Zukoff<sup>1</sup>, W. Johnson<sup>1</sup>, C. Boyer<sup>2</sup>, R. Cloyd<sup>1</sup>, M. Kennelly<sup>3</sup>, and J. Hoyle<sup>2</sup>. <sup>1</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>3</sup>Department of Plant Pathology; Kansas State University, Manhattan, KS (8<sup>th</sup> International Integrated Pest Management Symposium; March 25, 2015. Salt Lake City, UT).
- Entomology and hollywood: History of the 1950's "big bug" science fiction movies. R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (Entomological Society of America Annual Meeting; November 12, 2013. Austin, TX).
- New workshops and resources for tree health and agroforestry. M. Kennelly<sup>1</sup>, N. Ricci<sup>2</sup>, C. Barden<sup>3</sup>, J. O'Mara<sup>1</sup>, and R. Cloyd<sup>4</sup>. <sup>1</sup>Department of Plant Pathology; Kansas State University, Manhattan, KS. <sup>2</sup>Kansas Forest Service; Manhattan, KS. <sup>3</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>4</sup>Department of Entomology; Kansas State University, Manhattan, KS (K-State Research and Extension Annual Conference; October 16, 2012. Manhattan, KS).
- Choice and no-choice feeding preferences of the Southern pine sawyer beetle on four species of pine. M. S. Wilson<sup>1</sup>, J. J. Griffin<sup>1</sup>, and R. A. Cloyd<sup>2</sup>. <sup>1</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (American Society for Horticultural Science Annual Conference; August 2, 2012. Miami, FL).
- Efficacy of pesticide mixtures on the western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae). A. L. Willmott, R. A. Cloyd, and K. Y. Zhu. Department of Entomology; Kansas State University, Manhattan, KS (67<sup>th</sup> Annual Meeting of the North Central Branch Entomological Society of America; June 4, 2012. Lincoln, NE).
- Life history parameters of the rove beetle *Atheta coriaria* and efficacy against the fungus gnat *Bradysia* sp. nr. *coprophila*. E. Echegaray and R. A. Cloyd. Department of Entomology; Kansas State University, Manhattan, KS (K-State Graduate Research Forum; April 20, 2011. Manhattan, KS).
- Zoysiagrass genotypes differ in susceptibility to bluegrass billbug. J. Fry<sup>1</sup>, R. Cloyd<sup>2</sup>, A. Chandra<sup>3</sup>, A. Genovesi<sup>3</sup>, and M. Engelke<sup>3</sup>. <sup>1</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS. <sup>3</sup>Texas AgriLife Research; Dallas, TX (American Society of Agronomy-Crop Science Society of America-Soil Science Society of America Annual Meeting; October 31 through November 4, 2010. Long Beach, CA).
- Effect of light intensity on the translocation of two systemic insecticides in poinsettia (*Euphorbia pulcherrima*) and their subsequent efficacy for sweet potato whitefly (*Bemisia argentifolii*) control. J. Goebel<sup>1</sup>, K. Williams<sup>1</sup>, and R. Cloyd<sup>2</sup>. <sup>1</sup>Department of Horticulture, Forestry, and Recreation Resources; Kansas State University, Manhattan, KS. <sup>2</sup>Department of Entomology; Kansas State University, Manhattan, KS (July 17, 2007. American Society of Horticultural Science Annual Conference; July 17, 2007. Scottsdale, AZ).
- Lethal effects of pesticide mixtures on the predatory mite, *Neoseiulus cucumeris*. H. E. Lash, D. F. Warnock, and R. A. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (5<sup>th</sup> National Integrated Pest Management Symposium; April 5, 2006. St. Louis, MO).

- Integrated pest management in floriculture: How important is sanitation in reducing pest problems? B. K. Hogendorp and R. A. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (61<sup>st</sup> Annual North Central Branch Entomological Society of America Meeting; March 28, 2006. Bloomington, IL).
- Effect of tank mixing pesticides in controlling western flower thrips, *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae). D. Warnock and R. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; December 16, 2005. Fort Lauderdale, FL).
- Effect of nitrogen fertility on reproduction and development of citrus mealybug, *Planococcus citri* (Risso) (Hemiptera: Pseudococcidae) feeding on two colors of coleus, *Solenostemon scutellarioides* (L.) Codd. B. K. Hogendorp, R. A. Cloyd, and J. M. Swaider. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (North Central Branch Entomological Society of America Annual Meeting; March 22, 2005. West Lafayette, IN).
- Egg laying preference of female fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) (Diptera: Sciaridae) on three different commercially available bagged growing media. T. L. Meers and R. A. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (14<sup>th</sup> Ornamental Workshop on Diseases and Pests: Entomology Program; September 30, 2004. Hendersonville, NC).
- Effect of tank mixing pesticides in controlling western flower thrips, *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae). D. Warnock and R. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (American Society of Horticultural Sciences Annual Meeting; July 17, 2004. Austin, TX).
- Egg laying preference of female fungus gnats, *Bradysia* spp. nr. *coprophila* (Linter) (Diptera: Sciaridae) on three different commercially available bagged growing media. T. L. Meers and R. A. Cloyd. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (North Central Branch Entomological Society of America Annual Meeting; March 30, 2004. Kansas City, MO).
- Development and reproduction of *Hypoaspis miles* (Mesostigmata: Laelapidae) with fungus gnats, *Bradysia ocellaris* (Diptera: Sciaridae), potworms (Oligochaeta: Enchytraeidae) and *Sancassinia* sp. (Acari: Astigmata) as prey. A. R. Cabrera<sup>1</sup>, E. R. Zaborski<sup>2</sup>, and R. A. Cloyd<sup>1</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (9<sup>th</sup> Biennial Soil Ecology Society Conference; May 11-14, 2003. Palm Springs, CA).
- Evaluating lethal and sub-lethal effects of greenhouse pesticides on the soil-dwelling predatory mite, *Hypoaspis miles*. A. R. Cabrera<sup>1</sup>, R. A. Cloyd<sup>1</sup>, and E. R. Zaborski<sup>2</sup>. <sup>1</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL. <sup>2</sup>Illinois Natural History Survey; Champaign, IL (4<sup>th</sup> National Integrated Pest Management Symposium; April 8, 2003. Indianapolis, IN).
- Managing western flower thrips using a combination of impatiens with resistance and reduced-risk insecticides. D. Warnock, R. Cloyd, R. Loughner, and R. Elshire. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (4<sup>th</sup> National Integrated Pest Management Symposium; April 8, 2003. Indianapolis, IN).
- Developing educational programs for retail stores that sell pesticides. G. F. Czapar<sup>1</sup>, R. A. Cloyd<sup>2</sup>, and P. A. Kalnay<sup>1</sup>. <sup>1</sup>University of Illinois Extension; Springfield, IL. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana IL (4<sup>th</sup> National Integrated Pest Management Symposium; April 8, 2003. Indianapolis, IN).
- Managing western flower thrips using a combination of impatiens with resistance and reduced-risk insecticides. D. Warnock, R. Cloyd, R. Loughner, and R. Elshire. Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (16<sup>th</sup> International Horticultural Congress; August 11, 2002. Toronto, Canada).

- Fungus gnats and natural enemies: Interactions in floricultural production systems. E. R. Zaborski<sup>1</sup> and R. A. Cloyd<sup>2</sup>. <sup>1</sup>Illinois Natural History Survey; Champaign, IL. <sup>2</sup>Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL (Entomological Society of America Annual Meeting; December 11, 2001. San Diego, CA).
- Effect of coir and sphagnum peat-based substrates on fungus gnat populations. M. R. Evans<sup>1</sup>, J. N. Smith<sup>1</sup>, and R. Cloyd<sup>2</sup>. <sup>1</sup>Department of Horticulture; Iowa State University, Ames, IA. <sup>2</sup>Department of Entomology; Purdue University, West Lafayette, IN (American Society of Horticultural Science Annual Meeting; July 26, 1997. Salt Lake City, UT).
- Effects of soybean lines and growth stages on the expression of antibiosis in Mexican bean beetle. M. N. Anwar, L. W. Bledsoe, C. R. Edwards, and R. A. Cloyd. Department of Entomology; Purdue University, West Lafayette, IN (North Central Branch Entomological Society of America Annual Meeting; March 27, 1995. Lexington, KY).
- Effects of soybean lines, growth stages, and feeding intervals on the feeding behavior of Mexican bean beetle larvae. M. N. Anwar, L. W. Bledsoe, C. R. Edwards, and R. A. Cloyd. Department of Entomology; Purdue University, West Lafayette, IN (North Central Branch Entomological Society of America Annual Meeting; March 27, 1995. Lexington, KY).
- Relations of trichome parameters of several insect-resistant soybean lines to insect feeding. N. N. Troxclair, M. N. Anwar, L. W. Bledsoe, C. R. Edwards, and R. A. Cloyd. Department of Entomology; Purdue University, West Lafayette, IN (North Central Branch Entomological Society of America Annual Meeting; March 24, 1993. Fargo, ND).
- Resistance in soybean, *Glycine max* to the Mexican bean beetle, *Epilachna varivestis*. M. N. Anwar, L. W. Bledsoe, N. N. Troxclair, C. R. Edwards, and R. A. Cloyd. Department of Entomology; Purdue University, West Lafayette, IN (North Central Branch Entomological Society of America Annual Meeting; March 24, 1993. Fargo, ND).
- 6. Formal Reports (Associated with Pesticide Efficacy and Miscellaneous Independent Studies)**
- Efficacy of Kontos<sup>®</sup> and formulations of an entomopathogenic fungus (BW149-1218) on western flower thrips, *Frankliniella occidentalis*, feeding on chrysanthemum, *Tanacetum* (=Dendranthema) x *grandiflorum*, plants under greenhouse conditions 2019.
- Efficacy of Conserve<sup>®</sup> and different formulations of an entomopathogenic fungus, on western flower thrips, *Frankliniella occidentalis*, feeding on chrysanthemum, *Tanacetum* (=Dendranthema) x *grandiflorum*, plants under greenhouse conditions 2019.
- Efficacy of Conserve<sup>®</sup> and Deadzone<sup>™</sup> mixed with Brandt 719<sup>®</sup> on western flower thrips, *Frankliniella occidentalis*, feeding on chrysanthemum, *Tanacetum* (=Dendranthema) x *grandiflorum*, plants under greenhouse conditions 2019.
- Effect of growing media on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2019.
- Effect of growing media on fungus gnat, *Bradysia* sp. nr. *coprophila*, larvae under laboratory conditions 2019.
- Determine western flower thrips, *Frankliniella occidentalis*, feeding and dispersal on chrysanthemum, *Tanacetum* (=Dendranthema) x *grandiflorum*, plants under greenhouse conditions 2019.
- Efficacy of Pylon<sup>®</sup> and formulations of Grandevo<sup>®</sup> mixed with an adjuvant (NU FILM P<sup>®</sup>), on western flower thrips, *Frankliniella occidentalis*, feeding on chrysanthemum, *Tanacetum* (=Dendranthema) x *grandiflorum*, plants under greenhouse conditions 2019.
- Efficacy of Rycar<sup>®</sup> and SP3014 against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2019.
- Efficacy of Conserve<sup>®</sup> and Rocking T Garlic against western flower thrips, *Frankliniella occidentalis*, adults in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2019.

- Functional response of rove beetle, *Dalotia coriaria*, adults on western flower thrips, *Frankliniella occidentalis*, prepupae and pupae 2019.
- Plant safety associated with tomato, *Solanum lycopersicum*, plants after exposure to spray applications of six pesticides under greenhouse conditions 2019.
- Efficacy of insidious flower bug, *Orius insidiosus*, against western flower thrips, *Frankliniella occidentalis*, on chrysanthemum, *Dendranthema x grandiflorum*, plants under greenhouse conditions 2019.
- Effect of different mixtures of growing medium on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2019.
- Host-plant selection by redheaded flea beetle (*Systema frontalis*), adults on different plant species and cultivars in a nursery production system 2019.
- Longevity and efficacy of insecticides on field-collected populations of redheaded flea beetle, *Systema frontalis* (Coleoptera: Chrysomelidae), adults under laboratory conditions 2019.
- Efficacy of insecticides against field-collected populations of redheaded flea beetle, *Systema frontalis* (Coleoptera: Chrysomelidae), adults under laboratory conditions 2019.
- Efficacy of insidious flower bug, *Orius insidiosus*, against western flower thrips, *Frankliniella occidentalis*, on chrysanthemum, *Dendranthema x grandiflorum*, plants under greenhouse conditions 2019.
- Efficacy of the insidious flower bug, *Orius insidiosus*, and the insecticide spinosad (Conserve®) against western flower thrips, *Frankliniella occidentalis*, on chrysanthemum, *Dendranthema x grandiflorum*, plants under greenhouse conditions 2019.
- Plant safety associated with sweet basil, *Ocimum basilicum*, plants after exposure to spray applications of four pesticides under greenhouse conditions 2019.
- Effect of pesticide applications in preventing rose rosette disease on rose (*Rosa* spp.) plants in a nursery production system 2018.
- Effect of *Orius insidiosus* (Hemiptera: Anthocoridae) and spinosad (Conserve®) on western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae), adults in transvaal daisy, *Gerbera jamesonii*, flowers 2018.
- Effect of microwave pasteurization on fungus gnats, *Bradysia* spp., in growing medium 2018.
- Effect of feeding by fungus gnat, *Bradysia* sp. nr. *coprophila*, larvae on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Plant safety associated with garden pansy, *Viola x wittrockiana* cv. 'Matrix Orange,' plants when exposed to drench applications of four insecticides under greenhouse conditions 2018.
- Quality assessment of the parasitoid *Eretmocerus eremicus* (Hymenoptera: Aphelinidae) received from a biological control supplier 2018.
- Efficacy of various insecticides against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2018.
- Effect of growing media on rove beetle, *Dalotia coriaria*, adult predation and survival of fungus gnat, *Bradysia* sp. nr. *coprophila*, larvae feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse and laboratory conditions 2018.
- Efficacy of systemic insecticides on citrus mealybug, *Planococcus citri*, feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2018.
- Efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on transvaal daisy, *Gerbera jamesonii*, plants grown under greenhouse conditions 2018.
- Effect of light on citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), feeding location on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Efficacy of Keyplex Ecotrol EC and Pylon® against western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae), adults under laboratory conditions 2018.

- Efficacy of curative applications of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Efficacy of preventative applications of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Efficacy of neonicotinoid systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Efficacy of neonicotinoid systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Predation by insidious flower bug, *Orius insidiosus*, adults on western flower thrips, *Frankliniella occidentalis*, adults in transvaal daisy, *Gerbera jamesonii*, cut flowers under greenhouse conditions 2018.
- Assessment of redheaded flea beetle, *Systema frontalis*, adult emergence from containers with growing medium 2018.
- Efficacy of insecticides with and without synergists on western flower thrips, *Frankliniella occidentalis*, adults in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2018.
- Rearing the redheaded flea beetle, *Systema frontalis*, under laboratory conditions 2018.
- Effect of drench applications of insecticides on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2018.
- Effect of growing medium type on the growth of tomato, *Solanum lycopersicum*, plants under greenhouse conditions 2018.
- Effect of drench applications of insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Efficacy of insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Host-plant selection by redheaded flea beetle (*Systema frontalis*) adults on different plant species and cultivars in a nursery production system 2018.
- Efficacy of Acephate<sup>®</sup> and Aria<sup>®</sup> against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2018.
- Effect of pyriproxyfen (Fulcrum<sup>®</sup>) on western flower thrips, *Frankliniella occidentalis*, pupae in two growing media under laboratory conditions 2018.
- Efficacy of Altus<sup>™</sup> and Aria<sup>®</sup> against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2018.
- Efficacy of Hachi-Hachi<sup>®</sup> SC and SP3014 against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2018.
- Efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on salvia, *Salvia splendens*, plants grown under greenhouse conditions 2018.
- Efficacy of Grandevo<sup>®</sup> and Venerate<sup>™</sup> with and without Aza-Direct<sup>®</sup> against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2018.
- Efficacy of systemic insecticides on citrus mealybug, *Planococcus citri*, feeding on transvaal daisy, *Gerbera jamesonii*, plants under greenhouse conditions 2018.
- Leaf feeding by redheaded flea beetle, *Systema frontalis*, adults under laboratory conditions 2018.



- Assessment of redheaded flea beetle, *Systema frontalis*, adult attractiveness to semiochemical-baited Delta traps under nursery conditions 2018.
- Efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on wax begonia, *Begonia x semperflorens-cultorum*, plants grown under greenhouse conditions 2017.
- Predation by insidious flower bug, *Orius insidiosus*, adults on western flower thrips, *Frankliniella occidentalis*, adults under laboratory and greenhouse conditions 2017.
- Efficacy of drench applications of Hachi-Hachi<sup>®</sup> and Pylon<sup>®</sup> against fungus gnat, *Bradysia* sp. nr. *coprophila* larvae under laboratory conditions 2017.
- Residual activity of pyriproxyfen (Fulcrum<sup>®</sup>) on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2017.
- Residual activity of pyriproxyfen (Fulcrum<sup>®</sup>) on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2017.
- Efficacy of Aria<sup>™</sup> insecticide against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2017.
- Host plant selection by redheaded flea beetle (*Systema frontalis*) adults when exposed to *Itea virginica*, *Hydrangea paniculata*, and *Weigela florida* plants, in a nursery production system 2017.
- Efficacy of Mainspring<sup>®</sup> and CapSil<sup>®</sup> mixtures, on western flower thrips, *Frankliniella occidentalis*, feeding on chrysanthemum, *Tanacetum (=Dendranthema) x grandiflorum*, plants under greenhouse conditions 2017.
- Efficacy of VST-006340 LC, TriStar<sup>®</sup>, and SuffOil-X<sup>®</sup> in suppressing citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), populations under greenhouse conditions 2017.
- Efficacy of Mainspring<sup>®</sup> 200 SC and Mainspring<sup>®</sup> 40 WDG in mixtures with CapSil<sup>®</sup> against citrus mealybug, *Planococcus citri*, feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2017.
- Efficacy of Hachi-Hachi<sup>®</sup> SC with and without CapSil<sup>®</sup>, and Mainspring<sup>®</sup> against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2017.
- Efficacy of VST-006340LC, Captiva<sup>®</sup>, Pylon<sup>®</sup>, BotaniGard<sup>®</sup>, and BotaniGard MAXX<sup>®</sup> against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2017.
- Efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2017.
- Effect of insecticides in reducing foliar damage caused by redheaded flea beetle (*Systema frontalis*) adults on sweetspire (*Itea virginica*) in a nursery production system 2017.
- Efficacy of Safari<sup>®</sup> 20 SG and Altus<sup>™</sup> against citrus mealybug, *Planococcus citri*, feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2017.
- Plant safety associated with various herbaceous plant species when exposed to foliar and drench applications of the insecticide flupyradifurone (Altus<sup>™</sup>) under greenhouse conditions 2017.
- Efficacy of GWN-10569, GWN-10589 10SC, and Pylon<sup>®</sup> against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2017.
- Efficacy of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) feeding on coleus, *Solenostemon scutellarioides*, plugs grown under greenhouse conditions 2017.
- Effects of Aria<sup>™</sup>, KleenGrow<sup>™</sup>, and STRIP-IT PRO<sup>™</sup> on the survival of rove beetle, *Dalotia coriaria*, and insidious flower bug, *Orius insidiosus*, adults under laboratory conditions 2017.
- Direct effects of the pesticides Pyganic<sup>®</sup> and Entrust<sup>®</sup> on the insidious flower bug, *Orius insidiosus* (Hemiptera: Anthocoridae), under laboratory conditions 2017.

- Efficacy of drench applications of Ancora™ and Fulcrum® against fungus gnat, *Bradysia* sp. nr. *coprophila*, larvae under laboratory conditions 2017.
- Effects of Ancora™ and Fulcrum® on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2017.
- Efficacy of Mainspring® and CapSil® alone and in mixtures, on western flower thrips, *Frankliniella occidentalis*, feeding on chrysanthemum, *Tanacetum* (= *Dendranthema*) x *grandiflorum*, plants under greenhouse conditions 2017.
- Effects of Hachi-Hachi® with and without Captiva®, and Mainspring® on adult survival of the rove beetle, *Dalotia coriaria*, and the insidious flower bug, *Orius insidiosus*, under laboratory conditions 2017.
- Efficacy of Ancora™ and Fulcrum® against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2017.
- Efficacy of VST-006340LC and Captiva® against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2017.
- Effects of the insecticides Altus™ and Ancora™ on the survival of rove beetle, *Dalotia coriaria*, and insidious flower bug, *Orius insidiosus*, adults under laboratory conditions 2017.
- Efficacy of drench applications of KleenGrow™ and STRIP-IT PRO™ against fungus gnat, *Bradysia* sp. nr. *coprophila* larvae under laboratory conditions 2017.
- Effects of KleenGrow™ and STRIP-IT PRO™ on western flower thrips, *Frankliniella occidentalis*, pupae under laboratory conditions 2017.
- Efficacy of V-10433 EC, Azera® SC, and Entrust® SC against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2017.
- Efficacy of S-1423 300 G/L SC and V-10435 mixtures compared to Kontos® and Veratran® D mixed with CapSil®, on western flower thrips, *Frankliniella occidentalis*, feeding on green bean, *Phaseolus vulgaris*, plants under greenhouse conditions 2017.
- Efficacy of various insecticide treatments, with and without surfactants, on western flower thrips, *Frankliniella occidentalis*, feeding on green bean, *Phaseolus vulgaris*, plants under greenhouse conditions 2017.
- Efficacy of V-10433, V-10446, and other insecticides on western flower thrips, *Frankliniella occidentalis*, feeding on green bean, *Phaseolus vulgaris*, plants under greenhouse conditions 2017.
- Efficacy of S-1423 300 G/L SC and V-10435 mixtures compared to Kontos®, Venom®, and Sivanto® mixed with CapSil® against citrus mealybug, *Planococcus citri*, feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2017.
- Efficacy of V-10433 and other insecticides on citrus mealybug, *Planococcus citri*, feeding on coleus, *Solenostemon scutellarioides*, plants under greenhouse conditions 2017.
- Determine phytotoxicity of the insecticide tolfenpyrad (Hachi-Hachi®) on various greenhouse-grown horticultural plants 2017 (IR-4 Formal Report).
- Determine phytotoxicity of the pesticides cyflumetofen (Sultan™) and pyrifluquinazon (Rycar®) on various greenhouse-grown herbaceous horticultural plants 2017 (IR-4 Formal Report).
- Effect of five insecticides in reducing foliar damage caused by redheaded flea beetle (*Systema frontalis*) adults on sweetspire (*Itea virginica*) plants in a nursery production system 2017 (IR-4 Formal Report).
- Efficacy of VST-006340LC and TriStar® against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) on coleus, *Solenostemon scutellarioides*, plants grown under greenhouse conditions 2016.
- Efficacy of VST-006340LC and Overture® against western flower thrips, *Frankliniella occidentalis*, in transvaal daisy, *Gerbera jamesonii*, flowers under greenhouse conditions 2016.
- Evaluate tolerance of string bean (*Phaseolus vulgaris*) to S-1423 under greenhouse conditions 2016.
- Evaluate tolerance of lettuce (*Lactuca sativa*) to S-1423 under greenhouse conditions 2016.

- Evaluate tolerance of summer squash (*Cucurbita pepo*) to S-1423 under greenhouse conditions 2016.
- Evaluate tolerance of hardy geranium (*Geranium incanum* ‘Sugar Plum’) to S-1423 under greenhouse conditions 2016.
- Effect of the insecticide VST-006340LC on the insidious flower bug, *Orius insidiosus*, and the rove beetle, *Dalotia coriaria*, under laboratory conditions 2016.
- Direct and indirect effects of pesticides on the insidious flower bug, *Orius insidiosus* (Hemiptera: Anthocoridae) under laboratory conditions 2016.
- Direct effects of pesticides and pesticide mixtures on the insidious flower bug, *Orius insidiosus* (Hemiptera: Anthocoridae) under laboratory conditions 2016.
- Efficacy of drench applications of Mainspring™ against the larvae of the fungus gnat, *Bradysia* sp. nr. *coprophila* under greenhouse conditions 2016.
- Residual effects of the insecticide Mainspring™ on rove beetle, *Dalotia coriaria* adults 2016.
- Effect of surfactants on the insidious flower bug, *Orius insidiosus* under laboratory conditions 2016.
- Efficacy of *Metarhizium anisopliae* strain F52 (Met52® EC), and pyriproxyfen (Fulcrum®) against the fungus gnat, *Bradysia* sp. nr. *coprophila*, under laboratory conditions 2016.
- Effect of five insecticides in reducing foliar damage caused by redheaded flea beetle (*Systema frontalis*) adults on sweetspire (*Itea virginica*) in a nursery production system 2016.
- Effectiveness of neonicotinoid systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) on coleus, *Solenostemon scutellarioides* 2016.
- Effectiveness of systemic insecticides against the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae) on coleus, *Solenostemon scutellarioides* 2016.
- Effect of growing media and moisture content on adult rove beetle, *Dalotia coriaria* predation on fungus gnat, *Bradysia* sp. nr. *coprophila* larvae under laboratory and greenhouse conditions 2016.
- Efficacy of A16894D against the sweet potato whitefly B-biotype, *Bemisia tabaci* (Hemiptera: Aleyrodidae), under greenhouse conditions 2016.
- Tolerance of select beneficial insects and mites to XXpire™ insecticide 2015.
- Effect of Growstones® as a physical barrier in decreasing populations of the fungus gnat, *Bradysia* sp. nr. *coprophila* under greenhouse conditions 2015.
- Efficacy of the insecticide XXpire™ in controlling the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), under greenhouse conditions 2015.
- Direct effects of XXpire® insecticide on beneficial arthropods 2015.
- Efficacy of two formulations of the insect growth regulator, pyriproxyfen (Distance® and Fulcrum®) against the fungus gnat, *Bradysia* sp. nr. *coprophila*, under laboratory conditions 2015.
- Direct effects of the insecticide Mainspring™ on the rove beetle, *Dalotia coriaria* 2015.
- Efficacy of various insecticides in controlling the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), under greenhouse conditions 2015.
- Evaluation of the susceptibility of different cultivars of *Weigela* spp. to flea beetles 2015.
- Direct effects of the insecticide XXpire™ on the insidious flower bug, *Orius insidiosus* under laboratory conditions 2015.
- Efficacy of gs-omega/kappa-hctx-hvla (VST-06330 EP), *Bacillus thuringiensis* subsp. *israelensis* strain bmp 144 (Aquabac® 3000), and clove and rosemary oil (SNS 203™) against the fungus gnat, *Bradysia* sp. nr. *coprophila*, under laboratory conditions 2015.
- Efficacy of pyrifluquinazon (Rycar®) and dinotefuran (Safari® 20 SG) for control of the citrus mealybug, *Planococcus citri* (Hemiptera: Pseudococcidae), under greenhouse conditions 2015.
- Determine the effect of various miticides and combinations against the twospotted spider mite, *Tetranychus urticae* under greenhouse conditions 2014.
- Determine the translaminar activity of hexythiazox (Hexygon) and GWN-10208 with and without Kinetic® against the twospotted spider mite, *Tetranychus urticae* on two different horticultural crops 2014.

- Efficacy of A20520, thiamethoxam, and *Steinernema feltiae* against the larval stage of the fungus gnat, *Bradysia* sp. nr. *coprophila* under laboratory conditions 2014.
- Effects of AzaGuard and Zerotel on the biological control agents: *Amblyseius swirskii*, *Phytoseiulus persimilis*, *Orius insidiosus*, and *Leptomastix dactylopii* under laboratory conditions 2014.
- Efficacy of AzaGuard and AzaGuard + AX-1373 against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2014.
- Efficacy of entomopathogenic fungi and pyrethrins against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2014.
- Efficacy of insecticides available for homeowner use against the citrus mealybug, *Planococcus citri*, under greenhouse conditions 2013.
- Feeding location of the citrus mealybug (*Planococcus citri*) on untreated green coleus (*Solenostemon scutellarioides*) plants in sun and shade under greenhouse conditions 2013.
- Effect of reduced rates of pesticide mixtures on the western flower thrips, *Frankliniella occidentalis* associated with cut flowers 2013.
- Effect of incorporating KleenGrow™ into pesticide mixtures to enhance efficacy against the western flower thrips, *Frankliniella occidentalis* under greenhouse conditions 2013.
- Determine the effectiveness of GWN-1531 + GWN-1708 against the twospotted spider mite, *Tetranychus urticae* under greenhouse conditions 2013.
- Phytotoxicity of the insecticides tolfenpyrad (Hachi-Hachi®) and spirotetramat (Kontos™) on greenhouse-grown horticultural plants (IR-4 Formal Report) 2013.
- Effect of different treatment application frequencies of Mighty Wash® against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2013.
- The efficacy of Mighty Wash® against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2013.
- Determine effectiveness of the SHARK S3901Q2 electronic steam applicator against the bed bug, *Cimex lectularius* 2013.
- Determine the effectiveness of different application volumes of BAS 92102 against the twospotted spider mite, *Tetranychus urticae* under greenhouse conditions 2013.
- Efficacy of Nuke Em® against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2013.
- Efficacy of Discus® tablets against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2013.
- Effect of Growstones® on the fungus gnat, *Bradysia* sp. nr. *coprophila* adult emergence and egg survival under laboratory conditions 2013.
- Efficacy of dinotefuran and confidential insecticides against the western flower thrips, *Frankliniella occidentalis* under greenhouse conditions 2013.
- Repellent activity of mulches incorporated with an insecticide and herbicides on the bigheaded ant, *Pheidole megacephala* 2013.
- Effect of different treatment application frequencies of Mighty Wash® against the citrus mealybug, *Planococcus citri* under greenhouse conditions 2012.
- Determine the effectiveness of CX-48 (tebufenpyrad 3EC) against the twospotted spider mite, *Tetranychus urticae* under greenhouse conditions 2012.
- Phytotoxicity of the insecticides tolfenpyrad, pyridalyl, and spirotetramat on greenhouse-grown horticultural plants. IR-4 Formal Report 2012.
- Effect of entomopathogenic fungi against western flower thrips, *Frankliniella occidentalis* populations of transvaal daisy, *Gerbera jamesonii* plants under greenhouse conditions 2012.
- Evaluate the effectiveness of azadirachtin (AzaGuard™) in regulating western flower thrips, *Frankliniella occidentalis* populations on transvaal daisy, *Gerbera jamesonii* plants under greenhouse conditions 2012.
- Determine the effectiveness of numbered compounds (GWN-1531, GWN-10143, and GWN-1708) against the twospotted spider mite, *Tetranychus urticae* under greenhouse conditions 2012.

- Effect of diflubenzuron (Adept<sup>®</sup>) on fungus gnat, *Bradysia* sp. nr. *coprophila* larvae and rove beetle, *Atheta coriaria* adults in the growing medium 2012.
- Effect of Growstones<sup>™</sup> on fungus gnat, *Bradysia* sp. nr. *coprophila* adult emergence and female oviposition in growing medium 2012.
- Determine the effects of thiamethoxam (Flagship<sup>®</sup>) drenches on western flower thrips (*Frankliniella occidentalis*) populations and plant vigor associated with common garden verbena (*Verbena x hybrida*) plants 2012.
- Efficacy of KleenGrow<sup>™</sup> applied individually and incorporated into insecticide spray solutions against the western flower thrips, *Frankliniella occidentalis* and citrus mealybug, *Planococcus citri* 2012.
- Effect of A16901B applied as a foliar spray or drench to the growing medium on the sweet potato whitefly B-biotype, *Bemisia tabaci* under greenhouse conditions 2012.
- Determine the effectiveness of hexythiazox (Hexygon 50 DF) against the twospotted spider mite, *Tetranychus urticae* under greenhouse conditions 2011.
- Evaluate the effect of contact and residual timing of insecticides used for control of the western flower thrips, *Frankliniella occidentalis* on transvaal daisy, *Gerbera jamesonii* under greenhouse conditions 2011.
- Effectiveness of the Euro-Pro Shark SC3901W electronic hand-held steam scrubber unit against the bed bug, *Cimex lectularius* 2011.
- Evaluate the performance of fenazaquin (Magus<sup>™</sup>) against the two-spotted spider mite, *Tetranychus urticae* on butterfly bush, *Buddleia davidii* 2011.
- Determine the performance of fenazaquin (Magus<sup>™</sup>) against the two-spotted spider mite, *Tetranychus urticae* under greenhouse conditions 2011.
- Evaluate the efficacy of different formulations of SYN545377 applied as either a foliar spray or drench to the growing medium against the sweet potato whitefly B-biotype, *Bemisia tabaci* under greenhouse conditions 2011.
- Effect of petroleum-based oil insecticides and potassium nitrate on sweet potato whitefly B-biotype, *Bemisia tabaci* nymphs 2011.
- Determine the ovicidal properties of *Beauveria bassiana* (BotaniGard<sup>®</sup>) on sweet potato whitefly B-biotype, *Bemisia tabaci* eggs 2011.
- Evaluate effect of various treatments of the entomopathogenic nematode, *Steinernema feltiae* in reducing populations of the western flower thrips, *Frankliniella occidentalis* in chrysanthemum, *Dendranthema x grandiflorum* flowers under greenhouse conditions 2011.
- Effect of growing medium applications of designated numbered compounds and insecticide treatments for control of the sweetpotato whitefly B-biotype (*Bemisia tabaci*) under greenhouse conditions 2010.
- Effect of drench and spray applications of insecticides and numbered compounds in suppressing populations of the western flower thrips, *Frankliniella occidentalis* on chrysanthemum, *Dendranthema grandiflora* plants under greenhouse conditions 2010.
- Effect of *Bacillus pumilus* GHA 180 on the fungus gnat, *Bradysia* sp. nr. *coprophila* (Sciaridae: Diptera) larvae 2009.
- Activity of numbered compounds and sugar-based insecticides against western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers under greenhouse conditions 2009.
- Activity of numbered compound (S-1783) against the pea aphid, *Acyrtosiphon pisum* feeding on lima bean, *Phaseolus limensis* plants under greenhouse conditions 2009.
- Determine the effect of the entomopathogenic nematode, *Steinernema feltiae* in reducing populations of the western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers under greenhouse conditions 2009.
- Efficacy of designated insecticides against western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers under greenhouse conditions. IR-4 Formal Report 2009.

- Effect of *Beauveria bassiana* (BotaniGard) on the fungus gnat, *Bradysia* sp. nr. *coprophila* (Sciaridae: Diptera) larvae 2008.
- Activity of *Beauveria bassiana* (BotaniGard®) and mixtures with azadirachtin (Ornazin®) against the western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers under greenhouse conditions 2009.
- Activity of *Beauveria bassiana* (BotaniGard®) and mixtures with azadirachtin (Ornazin®) against the western flower thrips, *Frankliniella occidentalis* nymphs in transvaal daisy, *Gerbera jamesonii* flowers under greenhouse conditions 2009.
- Effect of various insecticides for control of the fungus gnat, *Bradysia* sp. nr. *coprophila* (Sciaridae: Diptera) larvae 2008.
- Effect of drench applications of designated pest control materials against the sweet potato whitefly B-biotype, *Bemisia tabaci* Gennadius under greenhouse conditions 2008.
- Effect of foliar applications of designated pest control materials against the sweet potato whitefly B-biotype, *Bemisia tabaci* Gennadius under greenhouse conditions 2008.
- Efficacy of foliar and drench applications of insecticides against the sweet potato whitefly B-biotype, *Bemisia tabaci* Gennadius under greenhouse conditions 2008.
- Control of western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers using a plant-derived essential oil product (Ecotrol®) 2008.
- Efficacy of plant-derived essential oil products in controlling the sweet potato whitefly B-biotype, *Bemisia tabaci* Gennadius under greenhouse conditions 2008.
- Efficacy of plant-derived essential oil products in controlling the brown soft scale, *Coccus hesperidum* L. under greenhouse conditions 2008.
- Efficacy of individual pesticide treatments and pesticide mixtures in controlling the twospotted spider mite, *Tetranychus urticae* Koch 2008.
- Effect of lure (ThripLine AMS) in enhancing detection of western flower thrips, *Frankliniella occidentalis* adults on blue sticky cards 2008.
- Efficacy of insecticides, including numbered compounds and commercially available products, against western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers 2008.
- Effect of SP3010 spray applications for control of the western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers 2008.
- Efficacy of foliar and drench applications of insecticides against the sweet potato whitefly B-biotype, *Bemisia tabaci* Gennadius under greenhouse conditions 2008.
- Effect of potassium bicarbonate (MilStop®) on the natural enemies of the citrus mealybug, *Planococcus citri*: the parasitoid, *Leptomastix dactylopii* and the coccinellid beetle, *Cryptolaemus montrouzieri* 2007.
- Effect of tank mixing insecticides on control of the green peach aphid, *Myzus persicae* Sulzer 2007.
- Effect of tank mixing insecticides on control of the green peach aphid, *Myzus persicae* 2007.
- Effect of selected molluscicides for control of the common garden slug, *Derocerus reticulatum* 2007.
- Attractiveness of parboiled rice hulls to the fungus gnat, *Bradysia* sp. nr. *coprophila* (Diptera: Sciaridae) compared to standard growing medium components 2007.
- Control of western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers with insecticides 2007.
- Activity of SP3010 on the green peach aphid, *Myzus persicae* 2007.
- Effect of *Beauveria bassiana* (BotaniGard) on the sweet potato whitefly B-biotype, *Bemisia argentifolii* under greenhouse conditions 2007.
- Effect of *Beauveria bassiana* (BotaniGard) on the green peach aphid, *Myzus persicae* Sulzer under greenhouse conditions 2007.
- Activity of different insecticides in controlling western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers 2007.

- Efficacy of selected pest control materials against the twospotted spider mite, *Tetranychus urticae* Koch 2007.
- Efficacy of the insecticide, thiamethoxam (Meridian) in controlling Japanese beetle, *Popillia japonica* (Newman) larvae 2007.
- Activity of different insecticides in controlling western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers 2007.
- Effect of selected insecticides for control of the fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) 2007.
- Effect of insecticide spray applications for control of the western flower thrips, *Frankliniella occidentalis* in transvaal daisy, *Gerbera jamesonii* flowers 2007.
- Effect of numbered compounds in controlling citrus mealybug, *Planococcus citri* (Risso) on coleus, *Solenostemon scutellarioides* (L.) Codd 2006.
- Evaluate efficacy of acequinocyl (Shuttle) and abamectin (Avid) on the twospotted spider mite, *Tetranychus urticae* Koch 2006.
- Effect of insecticides in controlling the green peach aphid, *Myzus persicae* (Sulzer) under greenhouse conditions 2006.
- Compare residual activity of etoxazole (TetraSan) with other miticides for control of the twospotted spider mite, *Tetranychus urticae* Koch 2006.
- Effect of insecticides in controlling the silverleaf whitefly, *Bemisia argentifolii* Bellows & Perring under greenhouse conditions 2006.
- Activity of insecticides in controlling citrus mealybug, *Planococcus citri* (Risso) on coleus, *Solenostemon scutellarioides* (L.) Codd 2005.
- Activity of insecticides for control of western flower thrips, *Frankliniella occidentalis* on transvaal daisy, *Gerbera jamesonii* flowers under greenhouse conditions 2005.
- Activity of BW420 in controlling silverleaf whitefly, *Bemisia argentifolii* on ornamental plants 2005.
- Evaluate the effects of flonicamid (Aria) for control of the fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) under laboratory conditions 2005.
- Effect of pesticides and pesticide-mixtures for control of twospotted spider mite, *Tetranychus urticae* 2005.
- Effect of selected pesticides and pesticide-mixtures for control of green peach aphid, *Myzus persicae* 2005.
- Effect of the miticide spiromesifen (Judo) on the predatory mites, *Neoseiulus californicus* McGregor and *Phytoseiulus persimilis* Athias-Henriot 2005.
- Effect of soil-applied insecticides and rove beetles, *Atheta* (= *Dalotia*) *coriaria* (Kraatz) in controlling fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) under laboratory conditions 2005.
- Activity of abamectin (Avid) and A8612 for control of twospotted spider mite, *Tetranychus urticae* on ornamentals 2005.
- Evaluate performance of clothianidin (Celero) and other neonicotinoid-based insecticides against silverleaf whitefly, *Bemisia argentifolii* 2005.
- Evaluate performance of selected pesticides and pesticide-mixtures for control of green peach aphid, *Myzus persicae* 2005.
- Evaluate performance of selected pesticides and pesticide-mixtures for control of twospotted spider mite, *Tetranychus urticae* 2005.
- Effect of insecticides in controlling citrus mealybug, *Planococcus citri* (Risso) 2005.
- Effect of insecticides in controlling longtailed mealybug, *Pseudococcus longispinus* (Targioni-Tozzetti) 2005.
- Effect of insecticides in controlling western flower thrips, *Frankliniella occidentalis* on transvaal daisy, *Gerbera jamesonii* flowers 2005.
- Determine repellency of essential oils on green peach aphid, *Myzus persicae* 2005.
- Effect of compounds derived from essential oils on two-spotted spider mite, *Tetranychus urticae* 2005.
- Effect of insecticides in controlling citrus mealybug, *Planococcus citri* (Risso) 2005.
- Effect of insecticides in controlling western flower thrips, *Frankliniella occidentalis* on transvaal daisy, *Gerbera jamesonii* flowers 2005.

- Effect of insecticides in controlling longtailed mealybug, *Pseudococcus longispinus* (Targioni-Tozzetti) 2005.
- Determine the effect of clothianidin (Arena) and other neonicotinoid-based insecticides on fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) 2004.
- Determine the effect of clothianidin (Arena) against citrus mealybug, *Planococcus citri* (Risso) 2004.
- Evaluate performance of acequinocyl (Shuttle) against twospotted spider mite, *Tetranychus urticae* 2004.
- Efficacy of different pest control materials for control of green peach aphid, *Myzus persicae* 2004.
- Effect of insecticides and insecticide-mixtures for control of western flower thrips, *Frankliniella occidentalis* 2004.
- Efficacy of different pest control materials for control of silverleaf whitefly, *Bemisia argentifolii* 2004.
- Effectiveness of different azadirachtin (Azatin) formulations for control of silverleaf whitefly, *Bemisia argentifolii* 2004.
- Effect of soil-applied insecticides in controlling the fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) 2004.
- Evaluate efficacy of pyriproxyfen (Distance) and dinotefuran (Safari) for control of fungus gnats, *Bradysia* sp. nr. *coprophila* (Lintner) 2004.
- Determine efficacy of pyriproxyfen (Distance) and V-10112 for control of citrus mealybug, *Planococcus citri* (Risso) 2004.
- Evaluate efficacy of selected insecticides and Milstop™ for control of citrus mealybug, *Planococcus citri* (Risso) 2004.
- Efficacy of milbemectin (Ultiflora) combined with a surfactant for control of two-spotted spider mite, *Tetranychus urticae* on marigold, *Tagetes patula* 2004
- Effect of insecticides and insecticide-mixtures for control of western flower thrips, *Frankliniella occidentalis* 2004.
- Determine efficacy of insecticides and insecticide mixtures for control of long-tailed mealybug, *Pseudococcus longispinus* (Targioni-Tozzetti) 2004.
- Determine efficacy of insecticides and insecticide mixtures for control of citrus mealybug, *Planococcus citri* (Risso) 2004.
- Evaluate performance of pesticides and pesticide-mixtures for control of twospotted spider mite, *Tetranychus urticae* 2004.
- Assess performance of selected pesticides and pesticide-mixtures for control of green peach aphid, *Myzus persicae* 2004.
- Determine efficacy of spiromesifen (Judo) and chlorfenapyr (Pylon) in controlling twospotted spider mite, *Tetranychus urticae* 2004.
- Baseline sensitivity testing of silverleaf whitefly, *Bemisia argentifolii* to thiamethoxam (Flagship) and imidacloprid (Marathon) compared to field efficacy on ornamentals 2004.
- Determine efficacy of spray and drench applications of selected insecticides for control of green peach aphid, *Myzus persicae* 2004.
- Determine the effects of flonicamid (Aria) on the citrus mealybug parasitoid, *Leptomastix dactylopii* (Howard) (Hymenoptera: Encyrtidae) under laboratory conditions 2004.
- Effect of insecticides in controlling long-tailed mealybug, *Pseudococcus longispinus* 2004.
- Determine the effect of the essential oil from *Chenopodium ambrosioides* L., on fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) 2003.
- Evaluate the effects of the miticide, chlorfenapyr (Pylon) on the predatory mites, *Neoseiulus californicus* McGregor and *Phytoseiulus persimilis* Athias-Henroit 2003.
- Assess the effect of acetamiprid (TriStar®) in controlling citrus mealybug, *Planococcus citri* (Risso) 2003.
- Efficacy of different miticides for control of two-spotted spider mite, *Tetranychus urticae* on marigold, *Tagetes patula* 2003.
- Effect of the insect growth regulator, novaluron (Pedestal®) in controlling citrus mealybug, *Planococcus citri* (Risso) 2003.



- Lethal and sub-lethal effects of novaluron (Pedestal<sup>®</sup>) on the soil-dwelling predatory mite, *Hypoaspis miles* (Berlese) 2003.
- Determine the effect of different formulations of etoxazole (TetraSan<sup>®</sup>) in controlling two-spotted spider mite, *Tetranychus urticae* 2003.
- Determine the effect of flonicamid (Aria<sup>®</sup>) and other systemic insecticides in controlling citrus mealybug, *Planococcus citri* (Risso) 2003.
- Effect of different soil-applied insecticides in controlling fungus gnat, *Bradysia* sp. nr. *coprophila* (Lintner) 2003.
- Determine the effect of imidacloprid (Merit<sup>®</sup>) in controlling long-tailed mealybug, *Pseudococcus longispinus* 2003.
- Efficacy of milbemectin (Ultiflora) against two-spotted spider mite, *Tetranychus urticae* on marigold, *Tagetes patula* 2003.
- Determine the effect of insect growth regulators in controlling long-tailed mealybug, *Pseudococcus longispinus* 2003.
- Baseline sensitivity testing of silverleaf whitefly, *Bemisia argentifolii* to thiamethoxam (Flagship) compared to field efficacy on ornamentals 2003.
- The effect of *Steinernema feltiae* (Nemasys F) on the larvae and adult stages of western flower thrips, *Frankliniella occidentalis* (Pergande) 2003.
- Determine the effectiveness of drench and spray applications of selected insecticides for controlling silverleaf whitefly, *Bemisia argentifolii* (Bellow & Perring) on transvaal daisy, *Gerbera jamesonii* H. Bolus ex. Hook f. 2002.
- Effect of spray and drench applications of selected insecticides in controlling the pupae stage of western flower thrips, *Frankliniella occidentalis* (Pergande) 2002.
- Effect of pot size, plant number, application type, and formulation on the activity of thiamethoxam (Flagship) for control of citrus mealybug, *Planococcus citri* (Risso) 2002.
- Effect of Agri-50 on silverleaf whitefly, *Bemisia argentifolii* Bellows & Perring, crawler emergence from eggs and adult emergence from pupae 2002.
- Efficacy of several new miticides for two-spotted spider mite, *Tetranychus urticae* control on marigold, *Tagetes patula* 2002.
- Evaluate the efficacy of Novaluron 10SC alone or in rotation with other pest control materials for management of western flower thrips, *Frankliniella occidentalis* (Pergande) on transvaal daisy, *Gerbera jamesonii* (H. Bolus ex. Hook f) 2001.
- Determine the effect of selected pest control materials for management of citrus mealybug, *Planococcus citri* (Risso) 2001.
- Determine the effectiveness of different pest control materials for management of citrus mealybug, *Planococcus citri* (Risso) 2001.
- Evaluate the effectiveness of DR-A-034, an experimental insecticide/miticide, in controlling citrus mealybug, *Planococcus citri* (Risso) 2001.
- Determine the potential phytotoxicity of Novaluron<sup>®</sup> at different rates on 'Freedom Red' poinsettia, *Euphorbia pulcherrima* (Willd. ex. Klotzsch) 2001.
- Evaluate the effectiveness of different pest control materials for management of citrus mealybug, *Planococcus citri* (Risso) 2001.
- Efficacy of pymetrozine (Endeavor) with and without an adjuvant on silverleaf whitefly, *Bemisia argentifolii* (Bellows & Perring), and potential phytotoxicity on bracts of 'Freedom Red' poinsettia, *Euphorbia pulcherrima* (Willd. ex. Klotzsch) 2001.
- Evaluation of Distance, V-10101, Enstar II, and Orthene for control of citrus mealybug, *Planococcus citri* (Risso) 2001.
- Determine the efficacy of various pest control materials for management of citrus mealybug, *Planococcus citri* (Risso) 2001.

- Determine the efficacy of various pest control materials for control of western flower thrips, *Frankliniella occidentalis* (Pergande) on transvaal daisy, *Gerbera jamesonii* (H. Bolus ex Hook. f) 2001.
- Evaluate the residual activity of foliar applications of thiamethoxam (Flagship 25WG) alone or in rotation with other pest control materials for management of citrus mealybug, *Planococcus citri* (Risso) 2001.
- Efficacy of Phyton 27 and selected miticides for control of twospotted spider mite, *Tetranychus urticae* Koch on marigold, *Tagetes patula* L. 2001.
- Efficacy of Agri-50 and Endeavor for green peach aphid, *Myzus persicae* control on chrysanthemum, *Dendranthema grandiflora* 2000.
- Efficacy of different pest control materials for two-spotted spider mite, *Tetranychus urticae* control on marigold, *Tagetes patula* 2000.
- Effect of different pest control materials in controlling melon aphid, *Aphis gossypii* on chrysanthemum, *Dendranthema grandiflora* 2000.
- Effectiveness of different materials in controlling citrus mealybug, *Planococcus citri* on coleus, *Solenostemon scutellarioides* 2000.
- Efficacy of different formulations of bifenazate (Floramite) against two-spotted spider mite, *Tetranychus urticae* on marigold, *Tagetes patula* 2000.
- Evaluate efficacy of etoxazole (TetraSan) against two-spotted spider mite, *Tetranychus urticae* Koch, when tank mixed with quick knockdown adulticides 2000.
- Efficacy of Novaluron 10EC against western flower thrips, *Frankliniella occidentalis* (Pergande) on transvaal daisy, *Gerbera jamesonii* (H. Bolus ex. Hook f) 2000.
- Effectiveness of pymetrozine (Endeavor) in controlling green peach aphid, *Myzus persicae* (Sulzer) on chrysanthemum, *Dendranthema grandiflora* Tzvelev and *Ipomoea batatas* (L.) 2000.
- Efficacy of selected insecticides against western flower thrips, *Frankliniella occidentalis* (Pergande) on transvaal daisy, *Gerbera jamesonii* (H. Bolus ex. Hook f) 2000.
- Evaluation of selected miticides for two-spotted spider mite, *Tetranychus urticae* (Koch) control on marigold, *Tagetes patula* L. 2000.
- Efficacy of selected insecticides against western flower thrips, *Frankliniella occidentalis* (Pergande) on transvaal daisy, *Gerbera jamesonii* (H. Bolus ex. Hook f) 2000.
- Evaluation of selected insecticides for western flower thrips, *Frankliniella occidentalis* (Pergande) control on transvaal daisy, *Gerbera jamesonii* (H. Bolus ex. Hook f) 2000.
- Determine the effectiveness of insecticides in controlling citrus mealybug, *Planococcus citri*, under greenhouse conditions 2000.
- Evaluation of two new formulations of V-1283 for two-spotted spider mite control 2000.
- Effect of Conserve<sup>®</sup> SC on the control of two-spotted spider mites by beneficial insects and mites 2000.
- Phytotoxicity and control of western flower thrips, *Frankliniella occidentalis* (Pergande), with XR-693 SC under greenhouse conditions on ornamental plants 1999.
- Determine the efficacy of Cinnamite<sup>®</sup> on two life stages of citrus mealybug, *Planococcus citri*, under greenhouse conditions 1999.
- Compare western flower thrips, *Frankliniella occidentalis* control using Conserve<sup>®</sup> in a greenhouse and outdoor nursery situation 1998.
- Comparison between two formulations of acephate, 15G and 15% tablet, against western flower thrips, *Frankliniella occidentalis* on transvaal daisy, *Gerbera jamesonii* 1998.
- Evaluate effectiveness of 15% acephate tablet for controlling western flower thrips, *Frankliniella occidentalis* 1998.
- Determine efficacy of acetamiprid and fipronil EC formulations for control of western flower thrips and evaluation of phytotoxicity to transvaal daisy, *Gerbera jamesonii* 1997.
- Evaluate effectiveness of insecticide treatments for control of bagworm 1997.
- Control of western flower thrips with Conserve<sup>®</sup> under field plot/commercial conditions 1997.
- Evaluate effectiveness of insecticide treatments for control of western flower thrips in transvaal daisy 1997.

- Determine efficacy of CHIPCO acetamiprid alone and in tank mix combinations with CHIPCO fipronil for control of western flower thrips 1997.
- Control of small and medium-sized bagworms with Conserve<sup>®</sup> under field plot/commercial conditions 1997.
- Effectiveness of Pinpoint 15G and Marathon 1G against western flower thrips, *Frankliniella occidentalis* (Pergande) on transvaal daisy, *Gerbera jamesonii* 1995-96.
- Control of western flower thrips using spinosad (DE-105) under field plot/commercial conditions 1996.
- Evaluate effectiveness of insecticide treatments for control of fall webworm 1996.
- Evaluate effectiveness of insecticide treatments for control of eastern tent caterpillar 1996.
- Evaluate effectiveness of insecticide treatments for control of western flower thrips in transvaal daisy 1996.
- Integrated pest management of western flower thrips, *Frankliniella occidentalis* (Pergande) in greenhouse-grown carnations, *Dianthus caryophyllus*. Purdue Horticulture Greenhouses 1993-96.
- Biological control of European corn borer, *Ostrinia nubilalis* (Hubner) in seed corn using *Trichogramma brassicae*. Purdue University and Pioneer Hi-Bred Seed International, Inc., 1993-95.
- Corn and Alfalfa Insecticide Evaluations 1992-95.

### 7. Special Research Reports

- Willmott, A. L., R. A. Cloyd, and K. Y. Zhu. 2013. Effects of pesticide mixtures in controlling arthropod pests of greenhouses. Special Research Report #215: Insect management. American Floral Endowment; Alexandria, VA.
- Hogendorp, B. K., and R. A. Cloyd. 2012. Effect of silicon-based fertilizer applications on reproduction and development of arthropod pests associated with horticultural crops—Part 1. Special Research Report #209: Insect Management; American Floral Endowment, Alexandria, VA.
- Hogendorp, B. K., and R. A. Cloyd. 2012. Effect of silicon-based fertilizer applications on reproduction and development of arthropod pests associated with horticultural crops—Part 2. Special Research Report #209: Insect Management. American Floral Endowment; Alexandria, VA.
- Hogendorp, B. K., and R. A. Cloyd. 2012. Effect of silicon-based fertilizer applications on reproduction and development of arthropod pests associated with horticultural crops—Part 3. Special Research Report #209: Insect Management. American Floral Endowment; Alexandria, VA.

### 8. Kansas Agricultural Experiment Station Research Reports

- Cloyd, R. A. 2018. Extent of larval populations of turfgrass insect pests at Rocky Ford Turfgrass Research Center at Manhattan, KS. Kansas Agricultural Experiment Station Research Reports: Vol.4, Issue 6. <https://doi.org/10.4148/2378-5977.7591>

### 9. Competitive Grants Awarded: National Organizations (Research and Extension-Related)

- Cloyd, R. A. 2019. Impact of application frequency and spray volume on the efficacy of insecticides against western flower thrips (*Frankliniella occidentalis*) and citrus mealybug (*Planococcus citri*) under greenhouse conditions. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 09/01/2019 through 08/31/2020. Funding Awarded: \$10,000.00
- Miller, F., D. E. Peterson, B. M. Garcia, R. A. Cloyd, W. A. Johnson, B. P. McCornack, J. A. Hoyle, W. Upham, C. Rivard, C. R. Boyer, M. Kenedly, E. D. DeWolf, S. Zukoff, and S. R. Duncan. 2019. Merging traditional methods of transformative approaches to enhance stakeholder engagement and IPM adoption. United States Department of Agriculture. Research Education and Economics—National Institute of Food and Agriculture (Crop Protection and Pest Management EIP). Proposal Duration: 09/01/2019 to 08/31/2020. Funding Awarded: \$276,669.00
- Cloyd, R. A. 2018. Effect of application frequency and spray volume of insecticides on citrus mealybugs. Joseph H. Hill Memorial Foundation, Inc. Proposal Duration: 07/01/2018 through 06/30/2019. Funding Awarded: \$15,000.00
- Cloyd, R. A. 2018. Impact of application frequency and spray volume on the efficacy of insecticides against western flower thrips (*Frankliniella occidentalis*) and citrus mealybug (*Planococcus citri*) under greenhouse conditions. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 09/01/2018 through 08/31/2019. Funding Awarded: \$10,000.00

- Skinner, A., C. Rivard, and R. A. Cloyd. 2018. Monitoring belowground arthropods associated with cover crops in Great Plain high tunnel systems. North Central Region Sustainable Agriculture Research and Education (NCR-SARE) Graduate Student Grant Program. Proposal Duration: 09/01/2018 through 08/31/2019. Funding Awarded: \$11,999.00
- Miller, F., D. E. Peterson, B. M. Stiffler, R. A. Cloyd, W. A. Johnson, B. P. McCornack, J. A. Hoyle, W. Upham, C. Rivard, C. R. Boyer, M. Kennelly, E. D. DeWolf, S. Zukoff, and S. R. Duncan. 2018. Merging traditional methods of transformative approaches to enhance stakeholder engagement and IPM adoption. United States Department of Agriculture, National Institute of Food and Agriculture (Crop Protection and Pest Management EIP). Proposal Duration: 09/01/2018 to 08/31/2019. Funding Awarded: \$276,721.00
- Miller, F., C. R. Thompson, D. E. Peterson, R. A. Cloyd, W. A. Johnson, B. P. McCornack, W. Upham, J. A. Hoyle, C. R. Boyer, M. Kennelly, E. D. DeWolf, S. Zukoff, S. R. Duncan, and C. Rivard. 2017. Merging traditional methods of transformative approaches to enhance stakeholder engagement and IPM adoption. United States Department of Agriculture, National Institute of Food and Agriculture (Crop Protection and Pest Management). Proposal Duration: 09/1/2017 to 08/31/2018. Funding Awarded: \$246,146.00
- Cloyd, R. A. 2016. Integrating the entomopathogenic fungus, *Beauveria bassiana*, with the rove beetle, *Dalotia coriaria*, to suppress populations of the western flower thrips, *Frankliniella occidentalis*. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/1/2016 through 06/30/2017. Funding Awarded: \$15,000.00
- Miller, F. L., C. R. Thompson, D. E. Peterson, R. A. Cloyd, W. A. Johnson, R. J. Whitworth, B. P. McCornack, W. Upham, J. A. Hoyle, C. R. Boyer, M. Kennelly, E. D. DeWolf, S. N. Zukoff, and S. R. Duncan. 2016. Promoting IPM and enhancing decision making among Kansas stakeholders through innovative programming. National Institute of Food and Agriculture, United States Department of Agriculture (Crop Protection and Pest Management). Proposal Duration: 09/1/2016 to 08/31/2017. Funding Awarded: \$278,000.00
- Many co-investigators and collaborators (Raymond Cloyd). 2015. Identifying opportunities and challenges for the use of bioproducts to increase the sustainability of ornamental and vegetable production in controlled environments. United States Department of Agriculture, National Institute of Food and Agriculture, Specialty Crop Research Initiative (SCRI). Proposal Duration: 01/1/2016 through 12/31/2016. Funding Awarded: \$50,000.00
- Cloyd, R. A. 2015. Determine the effect of foliar applications of entomopathogenic nematodes and water sprays on western flower thrips, *Frankliniella occidentalis*, populations. Association of Specialty Cut Flower Growers Research Foundation. Proposal Duration: 01/1/2016 through 12/31/2016. Funding Awarded: \$5,000.00
- Cloyd, R. A. 2015. Effect of the entomopathogenic fungus, *Beauveria bassiana*, and the rove beetle, *Dalotia coriaria*, in suppressing populations of the western flower thrips, *Frankliniella occidentalis*. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/1/2015 through 06/30/2016. Funding Awarded: \$14,000.00
- Lopez, R., R. Cloyd, B. Whipker, C. Currey, and G. Owen. 2015. eGRO Instructional Videos. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 01/01/2016 through 12/31/2016. Funding Awarded: \$9,000.00 (\$1,500.00 designated to Department of Entomology; Kansas State University, Manhattan, KS).
- Kennelly, M., C. Rivard, D. Ricks Presley, R. Cloyd, and K. Oxley. 2015. Soil health bootcamp and applications to sustainable vegetable cropping: professional development for local agriculture educators. North Central Region (NCR) Sustainable Agriculture Research and Education (SARE) Professional Development Grant Program. Proposal Duration: 01/1/2016 through 12/31/2018. Funding Awarded: \$64,307.00

- Miller, F., B. McCornack, R. Cloyd, J. Cox, L. Oppy, W. Upham, and C. Boyer. 2014. Promoting IPM and enhancing decision making among Kansas stakeholders through innovative programming. National Institute of Food and Agriculture, United States Department of Agriculture (Crop Protection and Pest Management). Proposal Duration: 09/1/2014 to 08/31/2015. Funding Awarded: \$278,000.00
- Krug, B. A., B. E. Whipker, R. G. Lopez, R. A. Cloyd, and O. Garrett. 2014. eGRO Instructional Videos. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 01/01/2014 through 12/31/2014. Funding Awarded: \$7,500.00 (\$1,500.00 designated to Department of Entomology; Kansas State University, Manhattan, KS).
- Cloyd, R. A. 2014. Effect of incorporating entomopathogenic fungi into rotation programs against the western flower thrips, *Frankliniella occidentalis*. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/1/2014 through 06/30/2015. Funding Awarded: \$15,000.00
- Miller, F., J. Shroyer, C. Thompson, D. Peterson, B. McCornack, R. Whitworth, R. Cloyd, W. Johnson, W. Upham, C. Boyer, M. Kennelly, and E. DeWolf. 2013. Innovative programming resources for Kansas stakeholders to enhance IPM decisions. United States Department of Agriculture (Extension IPM Coord/Support: E-IPM Grant). Proposal Duration: 09/01/2013 to 08/31/2016. Funding Awarded: \$289,200.00
- Cloyd, R. A. 2013. Effect of pesticide mixtures on arthropod pests of cut flowers. Association of Specialty Cut Flower Growers Research Foundation. Proposal Duration: 03/1/2013 through 02/28/2014. Funding Awarded: \$5,000.00
- Krug, B. A., B. E. Whipker, R. G. Lopez, M. Daughtrey, R. A. Cloyd, and K. A. Williams. 2013. eGRO University certificate. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 01/01/2013 through 12/31/2014. Funding Awarded: \$6,000.00 (\$750.00 designated to Department of Entomology; Kansas State University, Manhattan, KS).
- Cloyd, R. A. 2013. Effectiveness of systemic insecticides in regulating populations of the citrus mealybug, *Planococcus citri*. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/1/2013 through 06/30/2014. Funding Awarded: \$11,000.00
- Cloyd, R. A. 2012. Residual efficacy of systemic insecticides in regulating populations of the citrus mealybug, *Planococcus citri*. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/1/2012 through 06/30/2013. Funding Awarded: \$11,000.00
- Krug, B. A., B. E. Whipker, R. G. Lopez, M. Daughtrey, R. A. Cloyd, and K. A. Williams. 2012. eGRO—Electronic grower resources online. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 01/01/2012 through 12/31/2013. Funding Awarded: \$16,600.00 (\$2,700.00 designated to Department of Entomology; Kansas State University, Manhattan, KS).
- Cloyd, R. A. 2012. Effect of pesticide mixtures on arthropod pests of cut flowers. Association of Specialty Cut Flower Growers Research Foundation. Proposal Duration: 03/1/2012 through 02/28/2013. Funding Awarded: \$5,000.00
- Kennelly, M., N. Ricci, L. Biles, C. Barden, R. Atchison, R. Cloyd, and J. O'Mara. 2012. Professional development training for sustainable agroforestry in Kansas. North Central Region—Sustainable Agriculture Research and Education (SARE) Professional Development Program. Proposal Duration: 01/01/2012 through 12/31/2013. Funding Awarded: \$50,946.00
- Cloyd, R. A. 2011. Effect of sugar-based compounds in enhancing the efficacy of insecticides against the western flower thrips, *Frankliniella occidentalis*. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 01/01/2011 through 12/31/2012. Funding Awarded: \$8,000.00
- Krug, B. A., B. E. Whipker, R. G. Lopez, M. Daughtrey, R. A. Cloyd, and K. A. Williams. 2011. eGRO—Electronic grower resources online. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 01/01/2011 through 12/31/2012. Funding Awarded: \$16,600.00 (\$2,600.00 designated to Kansas State University).

- Cloyd, R. A. 2011. Effect of pesticide mixtures on arthropod pests of cut flowers. Association of Specialty Cut Flower Growers Research Foundation. Proposal Duration: 03/1/2011 through 02/28/2012. Funding Awarded: \$5,000.00
- Cloyd, R. A., and K. Y. Zhu. 2010. Effect of pesticide mixtures in controlling arthropod pests. American Floral Endowment. Proposal Duration: 08/01/2010 through 07/31/2013. Funding Awarded: \$75,000.00
- Cloyd, R. A. 2009. Efficacy and characteristics of commercially available plant-derived essential oil products used for control of greenhouse insect and mite pests. Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/31/2009 through 06/30/2010. Funding Awarded: \$9,000.00
- Cloyd, R. A. 2008. Efficacy and characteristics of plant derived essential oils used to control greenhouse arthropod pests. Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/31/2008 through 06/30/2009. Funding Awarded: \$10,000.00
- Cloyd, R. A., and K. Y. Zhu. 2008. Resistance of soft scale and mealybug pests to insecticides commonly used in interior plantscapes. National Foliage Foundation. Proposal Duration: 01/01/2009 through 05/31/2012. Funding Awarded: \$84,000.00
- Carey, E., R. Janke, K. Williams, C. Rajashekar, M. Kennelly, J. Nechols, R. Cloyd, and N. Nelson. 2007. Effects of organic fertility management on crop health and phytochemical content of vegetables under open field and high tunnel production. United States Department of Agriculture Integrated Organic Program. Proposal Duration: 06/01/2007 through 05/30/2010. Funding Awarded: \$964,610.00
- Cloyd, R. A. 2007. Effect of silicon applications on the reproduction and development of arthropod pests feeding on horticultural crops. American Floral Endowment. Proposal Duration: 06/01/2007 through 05/31/2008. Funding Awarded: \$20,000.00
- Cloyd, R. A. 2007. The effect of extracts derived from organic growing medium components in controlling fungus gnats, *Bradysia* spp. (Diptera: Sciaridae) in greenhouses. Fred C. Gloeckner Foundation, Inc. Proposal Duration: 07/31/2007 through 06/30/2008. Funding Awarded: \$12,000.00
- Cloyd, R. A. 2007. Effect of systemic insecticides on the brown soft scale, *Coccus hesperidum*. National Foliage Foundation. Proposal Duration: 05/01/2007 through 04/30/2008. Funding Awarded: \$2,000.00
- Cloyd, R. A., and R. A. Larson. 2006. The effects of extracts derived from organic growing medium components in controlling fungus gnats, *Bradysia* spp. (Diptera: Sciaridae) in greenhouses. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 09/01/2006 through 08/31/2008. Funding Awarded: \$20,000.00
- Brewer, M., D. Brown-Rytlewski, R. Richardson, S. Gower, J. Byrne, D. Smitley, B. Zandstra, J. Neal, and R. Cloyd. 2005. Development of regionally-based educational materials for ornamental IPM. North Central IPM Center Implementation Grant Program. United States Department of Agriculture Cooperative State Research, Education, and Extension Service. Proposal Duration: 04/01/2005 through 03/31/2007. Funding Awarded: \$72,194.00
- Horst, K. R., and R. A. Cloyd. 2004. Revision of the Compendium of Rose Diseases. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 09/01/2004 through 08/31/2005. Funding Awarded: \$3,500.00
- Cloyd, R. A., and R. A. Larson. 2004. Alternative management strategies to control fungus gnats, *Bradysia* spp. (Diptera: Sciaridae) in greenhouses using extracts derived from organic soil components. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 09/01/2004 through 08/31/2006. Funding Awarded: \$20,000.00
- Warnock, D. F., and R. A. Cloyd. 2003. Effect of tank mixes on the efficacy of biorational pest control materials in controlling western flower thrips, *Frankliniella occidentalis* Pergande, on two cut flower crops. Kee Kitayama Research Foundation. Proposal Duration: 02/15/2003 through 02/14/2004. Funding Awarded: \$9,500.00
- Warnock, D. F., and R. A. Cloyd. 2003. Determining the effect of tank mixes on the efficacy of biorational pesticides in controlling western flower thrips, *Frankliniella occidentalis* (Pergande). Floriculture Industry Research and Scholarship Trust (FIRST). Proposal Duration: 01/01/2003 through 12/31/2003. Funding Awarded: \$5,000.00

- Parrella, M., K. Heinz, R. Cloyd, D. Ullman, and K. Robb. 2002. Management strategies for thrips and tospoviruses on cut flowers/specialty crops, potted crops, and bedding plants. American Floral Endowment Research Grant Program/Agricultural Research Service (ARS). Proposal Duration: 09/01/2002 through 08/31/2006. Funding Awarded: \$390,000.00
- Nechols, J. R., D. C. Margolies, K. A. Williams, T. L. Marsh, and R. A. Cloyd. 2002. Alternative pest management for greenhouse bedding plants: Demonstration and economic evaluation at a commercial level. United States Department of Agriculture-Pest Management Alternative Program (PMAP) Cooperative State Research, Education, and Extension Service Grant. Proposal Duration: 09/01/2002 through 08/31/2004. Funding Awarded: \$165,803.00
- Warnock, D. F., and R. A. Cloyd. 2001. Managing western flower thrips using a combination of impatiens with natural resistance and reduced-risk insecticides. The Fred C. Gloeckner Foundation, Inc. Proposal Duration: 09/01/2001 through 08/31/2002. Funding Awarded: \$10,000.00
- Kalnay, P. L., G. Czapar, and R. A. Cloyd. 2001. Developing educational programs for retail stores that sell pesticides. United States Environmental Protection Agency Grant: Educational Pilot Program. Proposal Duration: 01/01/2001 through 12/31/2002. Funding Awarded: \$21,900.00
- Warnock, D. F., and R. A. Cloyd. 1999. Identifying interactions between impatiens with natural resistance to western flower thrips and synthetic insecticides: Evaluation for IPM programs. The Fred C. Gloeckner Foundation Research, Inc. Proposal Duration: 01/01/2000 through 12/31/2000. Funding Awarded: \$10,000.00
- 10. Competitive Grants Awarded: Regional Organizations (Research and Extension-Related)**
- Williams, K. A., T. Carey, R. Janke, R. Cloyd, and M. Kennelly. 2008. Developing web resources for organic production in high tunnels. Organic Farming Research Foundation. Proposal Duration: 01/01/2009 through 12/31/2011. Funding Awarded: \$14,322.00
- Williams, K. A., and R. A. Cloyd. 2007. Impact of light intensity on the ability of systemic insecticides to control whiteflies. K-State IPM Mini-Grant Program. Proposal Duration: 01/01/2007 through 12/31/2007. Funding Awarded: \$5,221.00
- Byrne, J., R. Richardson, D. Brown-Rytlewski, W. Kirk, B. Zandstra, S. Gower, D. Smitley, and R. Cloyd. 2005. Development of three pocket IPM scouting guides for pest identification in Christmas trees, nurseries, and landscapes. Project GREEN Grant Program. Proposal Duration: 04/01/2005 through 12/31/2006. Funding Awarded: \$14,730.00
- Andresen, J. W., R. A. Cloyd, and N. R. Pataky. 2001. Seminar and workshop on solutions to solve tree maladies found on United States Department of Defense urban forests. USDA Forest Service Urban Forestry Center for the Midwestern States Urban and Community Forestry Technology Transfer Grant. Proposal Duration: 08/10/2001 through 09/30/2003. Funding Awarded: \$30,000.00
- 11. Competitive Grants Awarded: State Organizations (Research and Extension-Related)**
- Cloyd, R. A. 2019. Monitoring larval populations of turfgrass insect pests at Rocky Ford Turfgrass Facility (Manhattan, KS). Kansas Turfgrass Foundation. Proposal Duration: 01/01/2019 through 12/31/2020. Funding Awarded: \$1,000.00
- Cloyd, R. A. 2018. Monitoring larval populations of turfgrass insect pests at Rocky Ford Turfgrass Facility (Manhattan, KS). Kansas Turfgrass Foundation. Proposal Duration: 01/01/2018 through 12/31/2018. Funding Awarded: \$1,000.00
- Cloyd, R. A. 2017. Monitoring for larval populations of turfgrass insect pests at Rocky Ford Turfgrass Facility. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2017 through 12/31/2017. Funding Awarded: \$1,500.00
- Cloyd, R. A. 2016. Monitoring for larval populations of turfgrass insect pests at Rocky Ford Turfgrass Facility. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2016 through 12/31/2016. Funding Awarded: \$1,500.00

- Cloyd, R. A. 2015. Monitoring for larval populations of turfgrass insect pests at Rocky Ford Turfgrass Facility. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2015 through 12/31/2015. Funding Awarded: \$1,500.00
- Cloyd, R. A. 2014. Monitoring for larval populations of turfgrass insect pests at Rocky Ford Turfgrass Facility. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2014 through 12/31/2014. Funding Awarded: \$2,000.00
- Cloyd, R. A. 2013. Monitoring for bluegrass billbug, *Sphenophorus parvulus* populations at Rocky Ford Turfgrass Facility. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2013 through 12/31/2013. Funding Awarded: \$3,000.00
- Cloyd, R. A. 2012. Assess susceptibility of zoysiagrass cultivars to the bluegrass billbug, *Sphenophorus parvulus*. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2012 through 12/31/2012. Funding Awarded: \$3,000.00
- Cloyd, R. A. 2011. Determine susceptibility of zoysiagrass cultivars against the bluegrass billbug, *Sphenophorus parvulus*. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2011 through 12/31/2011. Funding Awarded: \$2,000.00
- Cloyd, R. A. 2010. Determine the effectiveness of insecticides against the billbug, *Sphenophorus* spp. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2010 through 12/31/2010. Funding Awarded: \$4,000.00
- Cloyd, R. A. 2009. Efficacy of insecticides against the billbug, *Sphenophorus* spp. Kansas Turfgrass Foundation. Proposal Duration: 01/01/2009 through 12/31/2009. Funding Awarded: \$4,000.00
- Cloyd, R. A. 2008. Comprehensive literature review associated with organic mulches and arthropods. Mulch and Soil Council Research Foundation. Proposal Duration: 01/01/2008 through 12/31/2008. Funding Awarded: \$2,000.00
- Cloyd, R. A. 2006. Effect of silicon applications on arthropod pests feeding on ornamental plants. Research Board Granting Program. Proposal Duration: 01/01/2006 through 12/31/2006. Funding Awarded: \$12,714.00
- Cloyd, R. A., and R. N. Wiedenmann. 2001. Enhanced plant production in interior landscapes by combining reduced-risk insecticides with biological control agents. C-FAR UIUC Internal Competitive Grants Program FY2001. Proposal Duration: 07/01/2001 through 06/30/2003. Funding Awarded: \$60,000.00
- Cloyd, R. A., and D. F. Warnock. 2001. Trap crops and insecticide application methods for use in integrated pest management programs to combat western flower thrips in potted floriculture crops. Research Board Granting Program. Proposal Duration: 05/20/2001 through 05/20/2002. Funding Awarded: \$12,079.00
- Cloyd, R. A., and E. R. Zaborski. 2000. Distribution and interactions of biological control agents and fungus gnats in Illinois greenhouses as influenced by different growing media and watering regimes. Illinois Department of Agriculture Conservation 2000 FY2000 Sustainable Agriculture Grant Program. Proposal Duration: 02/01/2000 through 01/31/2003. Funding Awarded: \$122,435.00
- 12. Sponsored Interregional Research Project Funding (IR-4)**
- Cloyd, R. 2017. Interregional Research Project #6 (IR-4): Minor Crop Pest Management Program for the North Central Region. Source: United States Department of Agriculture-NIFA; New Insecticide/Miticide Crop Safety (Michigan State University). Funding Awarded: \$16,750.00. Duration: 08/15/2015 through 06/14/2017.
- Cloyd, R. 2016. Interregional Research Project #6 (IR-4): Minor Crop Pest Management Program for the North Central Region. Source: United States Department of Agriculture-NIFA; New Insecticide/Miticide Crop Safety (Michigan State University). Funding Awarded: \$3,000.00. Duration: 08/15/2015 through 08/14/2016.



- Cloyd, R. 2015. Interregional Research Project #6 (IR-4): Minor Crop Pest Management Program for the North Central Region. Source: United States Department of Agriculture-NIFA; New Insecticide/Miticide Crop Safety (Michigan State University). Funding Awarded: \$3,000.00. Duration: 07/1/2015 through 06/30/2016.
- Cloyd, R. 2014. Interregional Research Project #6 (IR-4): Minor Crop Pest Management Program for the North Central Region. Source: United States Department of Agriculture-NIFA; New Insecticide/Miticide Crop Safety (Michigan State University). Funding Awarded: \$6,000.00. Duration: 7/1/2014 through 6/30/2015.
- Cloyd, R. 2013. Interregional Research Project #4 (IR-4): Minor Crop Pest Management Program for the North Central Region. Source: United States of America Department of Agriculture-NIFA Budget (Michigan State University). Funding Awarded: \$4,000.00. Duration: 7/1/2013 through 6/30/2014.
- Cloyd, R. 2012. Interregional Research Project #4: Minor Crop Pest Management Program for the North Central Region. Source: United States of America Department of Agriculture CSREES (Michigan State University). Funding Awarded: \$5,000.00. Duration: 7/1/2012 through 6/30/2013.
- Cloyd, R. 2008. Interregional Research Project #4: Minor Crop Pest Management Program for the North Central Region. Source: United States of America Department of Agriculture CSREES (Michigan State University). Funding Awarded: \$8,000.00. Duration: 7/1/2008 through 6/30/2009.

### **13. Pesticide Efficacy and Independent Studies Funding**

January 1 through December 31, 2019=\$41,000.00  
 January 1 through December 31, 2018=\$58,000.00  
 January 1 through December 31, 2017=\$116,646.10  
 January 1 through December 31, 2016=\$48,500.00  
 January 1 through December 31, 2015=\$39,250.00  
 January 1 through December 31, 2014=\$36,900.00  
 January 1 through December 31, 2013=\$35,700.00  
 January 1 through December 31, 2012=\$27,250.00  
 January 1 through December 31, 2011=\$25,300.00  
 January 1 through December 31, 2010=\$33,100.00  
 January 1 through December 31, 2009=\$28,550.00  
 January 1 through December 31, 2008=\$45,000.00  
 January 1 through December 31, 2007=\$63,950.00

### **14. Additional Funding Sources**

Pearlstein Family Foundation (Nurserymen's Exchange; Half Moon Bay, CA)=\$10,000.00 (2010).

## **TEACHING**

Although Dr. Cloyd has no official teaching appointment, he is consistently requested to give guest lectures in a number of classes at Kansas State University (Manhattan, KS) in the Department of Entomology; Department of Horticulture and Natural Resources; and the Department of Plant Pathology. Dr. Cloyd also guest lectures for several horticulture classes at Johnson County Community College (Overland Park, KS). Below is a listing of all the guest lectures that Dr. Cloyd has given:

Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 22, 2019.

Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.

Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: October 17, 2019. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Christophe La Hovary.

- Foundations of Horticultural Pest Management (HORT 582)-Fall Semester. Guest lecturer: October 3, 2019. Topic: Pesticides and pollinators: what is the real story? Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Economic Entomology (ENTOM 300)-Spring Semester. Guest lecturer: April 11, 2019. Topic: Biological control in protected/enclosed production systems. Kansas State University; Manhattan, KS. Instructor: Tania Kim.
- Introduction to Horticultural Sciences (HORT 201)-Spring Semester. Guest lecturer: April 9, 2019. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Christophe La Hovary.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: March 1, 2019. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: February 20, 2019. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 30, 2018. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: October 18, 2018. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Christophe LaHovary.
- Foundations of Horticultural Pest Management (HORT 582)-Fall Semester. Guest lecturer: October 18, 2018. Topic: Pesticides and pollinators. Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Interior Landscaping (HORT 377)-Spring Semester. Guest lecturer: April 10, 2018. Topic: Pests and plant protection in interiorscapes. Kansas State University; Manhattan, KS. Instructors: Kimberly Williams and Gregory Davis.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: March 28, 2018. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Hydroponic Food Production (HORT 640)-Spring Semester. Guest lecturer: March 7, 2018. Topic: Pollination in hydroponic food production systems. Kansas State University; Manhattan, KS. Instructor: Kimberly Williams.
- Hydroponic Food Production (HORT 640)-Spring Semester. Guest lecturer: March 7, 2018. Topic: Plant protection in hydroponic food production systems. Kansas State University; Manhattan, KS. Instructor: Kimberly Williams.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 16, 2018. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: December 8, 2017. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (ENTM 589)-Fall Semester. Guest lecturer: November 17, 2017. Topic: Insecticides, biological controls, and factors that impact their performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 2, 2017. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Christophe LaHovary.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: March 29, 2017. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.

- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 10, 2017. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: December 2, 2016. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (ENTM 589)-Fall Semester. Guest lecturer: November 14, 2016. Topic: Insecticides, biological controls, and factors that impact their performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Interior Landscaping (HORT 377)-Spring Semester. Guest lecturer: April 12, 2016. Topic: Pests and pest management in interiorscapes. Kansas State University; Manhattan, KS. Instructors: Kimberly Williams and Gregory Davis.
- Vegetable Crop Production (HORT 560)-Spring Semester. Guest lecturer: March 22, 2016. Topic: Plant protection of vegetable crops. Kansas State University; Manhattan, KS. Instructor: May Altamimi.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: March 2, 2016. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 26, 2016. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 20, 2015. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (ENTM 589)-Fall Semester. Guest lecturer: November 11, 2015. Topic: Insecticides, biological controls, and factors that impact their performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Foundations of Horticulture Pest Management (HORT 582)-Fall Semester. Guest lecturer: October 1, 2015. Topic: Ornamental and turfgrass insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: March 25, 2015. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 17, 2015. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 21, 2014. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (ENTM 589)-Fall Semester. Guest lecturer: November 19, 2014. Topic: Insecticides, biological controls, and factors that impact their performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: April 10, 2014. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 14, 2014. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Nursery Management (HORT 575)-Fall Semester. Guest lecturer: December 10, 2013. Topic: Systemic insecticides. Kansas State University; Manhattan, KS. Instructor: Stu Warren.
- Nursery Management (HORT 575)-Fall Semester. Guest lecturer: December 5, 2013. Topic: Pest management in nurseries. Kansas State University; Manhattan, KS. Instructor: Stu Warren.

- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 23, 2013.  
Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Karen Thum.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 22, 2013.  
Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (HORT/ENTM 589)-Fall Semester. Guest lecturer: November 20, 2013. Topic: Ecology and management of root-feeding grubs. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Turfgrass Insects and Their Management (HORT/ENTM 589)-Fall Semester. Guest lecturer: November 4, 2013. Topic: Insecticides, biological controls, and factors that impact their performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Introduction to Horticultural Sciences (HORT 201)-Spring Semester. Guest lecturer: April 30, 2013. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Karen Thum.
- Plant Problems (HORT 225)-Spring Semester. Guest lecturer: April 11, 2013. Topic: Diagnosing plant problems. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Plant-Water Relations (AGRON 820)-Spring Semester. Guest lecturer: March 13, 2013. Topic: How would “climate change” impact arthropod pests? Kansas State University; Manhattan, KS. Instructor: Mary Beth Kirkham.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 22, 2013. Topic: Identification and management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O’Mara.
- Introduction to Horticultural Sciences (HORT 201)-Spring Semester. Guest lecturer: December 1, 2012.  
Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Karen Thum.
- Introduction to Horticultural Sciences (HORT 201)-Spring Semester. Guest lecturer: November 30, 2012.  
Topic: Identification of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (HORT/ENTM 589)-Fall Semester. Guest lecturer: November 5, 2012. Topic: Ecology and management of root-feeding grubs. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Turfgrass Insects and Their Management (HORT/ENTM 589)-Fall Semester. Guest lecturer: November 2, 2012. Topic: Insecticides, biological controls, and factors that impact their performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Greenhouse Operations Management (HORT 570)-Fall Semester. Guest lecturer: October 31, 2012. Topic: Pest management of greenhouse insect and mite pests: How is it integrated? Kansas State University; Manhattan, KS. Instructor: Kimberly Williams.
- H<sub>2</sub>O and Elevated CO<sub>2</sub> (AGRON 600/960)-Fall Semester. Guest lecturer: September 25, 2012. Topic: Impact of “climate change” on arthropod pests. Kansas State University; Manhattan, KS. Instructor: Mary Beth Kirkham.
- Special Problems (HORT 390)-Spring Semester. Guest lecturer: May 23, 2012. Topic: Managing insect and mite pests in organic production systems. Kansas State University; Manhattan, KS. Instructor: Rhonda Janke.
- Introduction to Horticultural Sciences (HORT 201)-Spring Semester. Guest lecturer: May 3, 2012. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Karen Thum.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 24, 2012. Topic: Management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O’Mara.

- Nursery Management (HORT 575)-Fall Semester. Guest lecturer: November 29, 2011. Topic: Pest management in nurseries. Kansas State University; Manhattan, KS. Instructor: Stu Warren.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 19, 2011. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Karen Thum.
- Turfgrass Insects and Their Management (HORT 589)-Fall Semester. Guest lecturer: November 18, 2011. Topic: Ecology and management of root-feeding grubs. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: November 11, 2011. Topic: Identification and management of greenhouse insect and mite pests. Johnson County Community College, Overland Park, KS. Instructor: Lekha Sreedhar.
- Turfgrass Insects and Their Management (HORT 589)-Fall Semester. Guest lecturer: November 7, 2011. Topic: Insecticides and biological controls: Factors that affect their use. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: May 9, 2011. Topic: Identification of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Karen Thum.
- Landscape diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 25, 2011. Topic: Management of greenhouse insect and mite pests. Kansas State University, Manhattan, KS. Instructor: Judy O'Mara.
- Co-taught; Turfgrass Insects and Their Management (HORT/ENTM 589)-Fall Semester 2010 (November through December). 19 students enrolled. Kansas State University; Manhattan, KS. Original Instructor: James Nechols.
- Introduction to Horticultural Sciences (HORT 201)-Fall Semester. Guest lecturer: December 1, 2010. Topic: Management of greenhouse insect and mite pests. Johnson County Community College; Overland Park, KS. Instructor: Lekha Sreedhar.
- Horticultural Entomology (HORT/ENTM 320)-Fall Semester. Guest lecturer: November 16, 2010. Topic: Management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Organic Farming Systems (HORT 325)-Fall Semester. Guest lecturer: October 29, 2010. Topic: Organic pest management. Kansas State University; Manhattan, KS. Instructor: Rhonda Janke.
- Vegetable Crops (HORT 560)-Spring Semester. Guest lecturer: March 2, 2010. Topic: Old (gone) and alternative insecticides. Kansas State University; Manhattan, KS. Instructor: Rhonda Janke.
- Landscape Diseases (PLPTH 590)-Spring Semester. Guest lecturer: February 19, 2010. Topic: Management of greenhouse insect and mite pests. Kansas State University; Manhattan, KS. Instructor: Judy O'Mara.
- Turfgrass Insects and Their Management (HORT/ENTOM 589)-Fall Semester. Guest lecturer: November 18, 2009. Topic: Ecology of root-feeding grubs. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Turfgrass Insects and Their Management (HORT 589/ENTOM 589)-Fall Semester. Guest lecturer: November 9, 2009. Topic: Insecticides & biological controls: Factors that affect their use. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Nursery Management (HORT 575)-Spring Semester. Guest lecturer: February 3, 2009. Topic: Pest management in nurseries. Kansas State University; Manhattan, KS. Instructor: Stu Warren.
- Turfgrass Insects and Their Management (HORT 589)-Fall Semester. Guest lecturer: November 21, 2008. Topic: Ecology of root-feeding grubs. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Turfgrass Insects and Their Management (HORT 589)-Fall Semester. Guest lecturer: November 14, 2008. Topic: Insecticides, biological controls, and factors that affect performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.

- Organic Farming Systems (HORT 325)-Fall Semester. Guest lecturer: October 24, 2008. Topic: Organic materials for pest management. Kansas State University; Manhattan, KS. Instructor: Rhonda Janke.
- Turfgrass Insect Pest Management (HORT 519)-Fall Semester. Guest lecturer: November 9, 2007. Topic: Ecology of root-feeding grubs. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Turfgrass Insect Pest Management (HORT 519)-Fall Semester. Guest lecturer: November 2, 2007. Topic: Insecticides, biological controls, and factors that affect performance. Kansas State University; Manhattan, KS. Instructor: James Nechols.
- Horticultural Pest Management (HORT 582)-Fall Semester. Guest lecturer: November 1, 2007. Topic: Greenhouse pests and management. Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Horticultural Pest Management (HORT 582)-Fall Semester. Guest lecturer: September 27, 2007. Topic: What's new in arthropod control? Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Entomology: What's Bugging You? Guest lecturer: October 11, 2007. Wellington High School; Wellington, KS. Instructor: Ed LeValley.
- Horticultural Pest Management (HORT 582)-Fall Semester. Guest lecturer: October 26, 2006. Topic: Greenhouse pest management. Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Turfgrass Pest Management (HORT 519)-Fall Semester. Guest lecturer: September 8, 2006. Topic: Turfgrass pests. Kansas State University; Manhattan, KS. Instructor: Steve Keeley.
- Plants for Interior Environments (HORT 377)-Spring Semester. Guest lecturer: April 10, 2006. Topic: Insect and mite management in interiorscapes. Kansas State University; Manhattan, KS. Instructor: Kent Kimmins.
- Greenhouse Operations Management (HORT 570)-Fall Semester. Guest lecturer: November 29, 2005. Topic: Integrated pest management in greenhouses. Kansas State University; Manhattan, KS. Instructor: Kimberly Williams.
- Fundamentals of Integrated Pest Management (IB-482)-Fall Semester. Guest laboratory lecturer: October 26 and 28, 2005. Topic: Greenhouse pest management. University of Illinois; Champaign-Urbana, IL. Instructor: Larry Hanks.
- Plants for Interior Environments (HORT 377)-Spring Semester. Guest lecturer: April 18, 2005. Topic: Insect management in interiorscapes. Kansas State University; Manhattan, KS. Instructor: Kent Kimmins.
- Non-Toxic Pest Control (March 3, 2005. Chicago Botanic Garden; Glencoe, IL).
- Greenhouse Management and Production (HORT 241)-Fall Semester. Guest lecturer: December 5, 2003. Topic: Insect identification and management. University of Illinois; Champaign-Urbana, IL. Instructor: Daniel Warnock.
- Fundamentals of Integrated Pest Management (ENTM 319)-Fall Semester. Guest laboratory lecturer: November 12 and 14, 2003. Topic: Greenhouse pest management. University of Illinois; Champaign-Urbana, IL. Instructor: Larry Hanks.
- Insect Pest Management in Ornamentals (NRES 399)-Fall Semester. Oakbrook; Chicago, IL 2003.
- Insect Ecology (March 11, 2003. Chicago Botanic Garden; Glencoe, IL).
- Fundamentals of Greenhouse Plant Nutrition (February 18, 2003. Chicago Botanic Garden; Glencoe, IL).
- Insect Identification Series-Use of Insect Ecology in Managing Urban Pests: Biological Control and Cultural Control (March 8, 2002). Delivered via Latitude Bridge. University of Illinois; Champaign-Urbana, IL.
- Pesticides 101: Understanding Pesticides and Their Use (February 15, 2002. Chicago Botanic Garden; Glencoe, IL).
- Fundamentals of Integrated Pest Management (ENTM 319)-Fall Semester. Guest laboratory lecturer: October 10, 2001. Topic: Greenhouse pest management. University of Illinois; Champaign-Urbana, IL. Instructor: Larry Hanks.

- Greenhouse Management and Production (NRES 241)-Fall Semester. Guest lecturer: November 2, 2001.  
Topic: Insect identification and management. University of Illinois; Champaign-Urbana, IL. Instructor: Daniel Warnock.
- Greenhouse Pests and Diseases (July 27, 2001. Chicago Botanic Garden; Glencoe, IL).
- Insect Identification Series-Basic Entomology (March 9, 2001) and Urban Entomology (March 16, 2001).  
Delivered via Latitude Bridge. University of Illinois; Champaign-Urbana, IL.
- Indoor Plant Culture Use and Identification (NRES 245)-Fall Semester. Guest lecturer: November 13, 2000.  
Topic: Interior plantscape pests. University of Illinois; Champaign-Urbana, IL. Instructors: Denny Schrock and Daniel Warnock.
- Ornamental Plant Insect Management (NRES 300)-Fall Semester. Oakbrook; Chicago, IL 1999.
- Greenhouse Management and Production (NRES 241)-Fall Semester. Guest lecturer: November 5, 1999.  
Topic: Insect identification and management. University of Illinois; Champaign-Urbana, IL. Instructor: Daniel Warnock.
- Taught ‘Identification and Control of the Major Insect Pests of the Landscape and Nursery Industries’ for 3A Ornamental Pest Control Training. February 9, 1998. Purdue University; West Lafayette, IN.
- Presented two lectures on ‘Western Flower Thrips and Impatiens Necrotic Spot Virus’ in Botany 519-Diseases of Greenhouse Ornamentals. 1997. Purdue University; West Lafayette, IN. Instructor: Dr. Paul Pecknold.
- Taught ‘Solving Dilution Problems: How Much Chemical Do I Need?’ for 3A Ornamental Pest Control Training. January 28, 1997. Purdue University; West Lafayette, IN.
- Teaching Assistant: ENTM 307E-Ornamental Insects. 1995-1998. Purdue University; West Lafayette, IN.  
Instructor: Dr. Clifford Sadof.
- Presented two lectures on ‘Biological Control in Interior Plantscapes’ in ENTM 555-Theory and Practice of Biological Control. October 13 and 16, 1995. Purdue University; West Lafayette, IN. Instructor: Dr. Robert O’Neil.

## **SERVICE**

### **1. Kansas State University Department of Entomology/College Committee Services/Student Participation**

- Department of Entomology Greenhouse Committee 2007-2012 [Chairperson 2008-2009].
- Department of Entomology Insect Zoo Committee 2007-2010 [Chairperson 2010].
- Department of Entomology Awards and Scholarships Committee 2010-2012 [Chairperson 2011].
- Department of Entomology Evaluation Protocol Committee 2011-2012.
- Department of Entomology PSEP-IPM Steering Committee 2009-2014.
- Department of Entomology Evaluation and Review Committee 2013-2014.
- Department of Entomology Research Subcommittee 2013.
- Department of Entomology Executive Committee 2014-2019.
- Department of Entomology Facilities and Safety Committee 2017-2020.
- Department of Entomology Public Affairs Committee 2018-2021.
- State Extension Leader, Department of Entomology 2014-2018.
- Inter-Departmental Faculty Greenhouse Committee (Representative for Entomology Department) 2019.
- Search Committee Member: Medical and Veterinary Extension Entomologist position 2008.
- Department of Entomology PSEP-IPM Steering Committee 2009-2015.
- Linnaean Team Coach: Entomological Society of America North Central Branch Annual Meeting; March 15-18, 2009 (St. Louis, MO).
- Linnaean Team Coach: Entomological Society of America North Central Branch Annual Meeting; March 14-17, 2010 (Louisville, KY).

Linnaean Team Coach: Entomological Society of America North Central Branch Annual Meeting; March 13-16, 2011 (Minneapolis, MN).

Linnaean Team Coach: Entomological Society of America North Central Branch Annual Meeting; June 3-5, 2012 (Lincoln, NE).

Linnaean Team Coach: Entomological Society of America North Central Branch Annual Meeting; June 16-19, 2013 (Rapid City, SD).

College of Agriculture Awards Committee 2011-2012.

College of Agriculture Scholarships Committee 2011-2012.

## **2. University of Illinois Department of Natural Resources and Environmental Sciences, and College Committee Services**

Natural Resources and Environmental Sciences Outreach Committee 1999-2003.

Natural Resources and Environmental Sciences Network Committee 2000-2001.

Natural Resources and Environmental Sciences Awards Committee 2000-2001.

Natural Resources and Environmental Sciences Retreat Committee 2002-2003.

College of Agricultural, Consumer, and Environmental Sciences Plant Care Advisory Committee 2000-2005.

College of Agricultural, Consumer, and Environmental Sciences Team Award for Excellence Committee 2003.

Natural Resources and Environmental Sciences Departmental External Relations Committee 2003-2006.

Natural Resources and Environmental Sciences Seminar Committee 2004-2006.

College of Agricultural, Consumer, and Environmental Sciences National Soybean Research Center (NSRC) Building Advisory Committee 2003-2006. Committee Chair: 2003-2006.

College of Agricultural, Consumer, and Environmental Sciences Space Policy Committee 2004-2005.

## **3. Illinois Natural History Survey Committee Services**

Center of Economic Entomology Luckmann Award Committee 2002-2003.

## **4. Professional Committee Services**

Entomological Society of America Section E, Subsection Ea: Extension, Arthropod Management Test Representative 2001-2005.

Entomological Society of America Arthropod Management Test, Chairperson for Editorial Board 2004.

Entomological Society of America Section E, Subsection Ea: Extension, Chairperson 2004.

Entomological Society of America Section E, Subsection Ea: Extension, Secretary 2002.

Entomological Society of America Standing Committee on Graduate Student Award for Leadership in Applied Entomology. North Central Branch Entomological Society of America Representative 2001-2003.

Entomological Society of America Section E, Subsection Ea: Extension, Vice-Chairperson 2003.

Entomological Society of America North Central Branch Resolutions Committee 2002-2005.

Entomological Society of America North Central Branch Resolutions Committee, Chairperson 2004-2005.

Entomological Society of America, Section E (Extension): Editorial Board Representative, Environmental Entomology 2006-2008.

Entomological Society of America: judging panel member for Distinguished Achievement Award in Horticultural Entomology 2007-2009.

Entomological Society of America: Plant-Insect Ecosystems (PIE) section representative for Education and Outreach Committee 2010-2013.

Subject-Editor for the *Journal of Economic Entomology* (Section: Horticultural Entomology) 2011-2019.

American Phytopathological Society Press Board: Senior Editor 2018-present.

American Society of Horticultural Sciences Extension Publication Award Committee 2002-2004.

American Society of Horticultural Sciences Extension Publication Award Committee 2007-2010 [Chairperson: 2009-2010].

American Phytopathological Society Diseases of Ornamental Plants Committee 2001-2004.



Ohio Florists' Association Environmental Education Committee 2001-2005.  
 Ohio Florists' Association Short Course Grower Program Committee 2006-2011.  
 Ohio Florists' Association: Entomological Consultant 2002-2012.  
 Educator Community Connector for AmericanHort 2014.  
 Member of Editorial Board for the Journal of Environmental Horticulture 2015-present.  
 American Orchid Society: Member of Editorial Advisory Board 2006-2013.  
 Society of American Florist's; Coordinator for Pest Management Conference 2003.  
 Association of Education and Research Curators Communications Committee 2008-2011.  
 North Central Region (NCR) Committee Number 101; Controlled Environment Technology and Use.  
 University of Illinois Representative 2001-2005.  
 North Central Region (NCR) Committee Number 193; Management of Insect Pests and Diseases of  
 Landscape Plants. University of Illinois Representative 2000-2005.  
 North Central Region (NCR) Committee Number 193; Management of Insect Pests and Diseases of  
 Landscape Plants. Kansas State University, Department of Entomology Representative 2006-2015.

### **5. Regional Committee Services**

Southern Illinois Bedding Plant School Planning Committee 2001-2005.  
 Epsilon Sigma Phi (ESP)—Alpha Nu Chapter Membership Committee, Co-Chairperson 2005-2006.  
 Epsilon Sigma Phi (ESP)—Alpha Rho Kansas Chapter Awards Committee 2009-2011.  
 Epsilon Sigma Phi (ESP)—Alpha Rho Kansas Chapter Budget and Audit Committee 2011-2014.  
 Epsilon Sigma Phi (ESP)—Alpha Rho Kansas Chapter Global Relations Committee 2015-2018.  
 Western University Faculty Member 2008-2012.  
 Kansas Greenhouse Growers Association (KGGA); Advisor 2008-present.  
 Kansas Greenhouse Growers Association (KGGA); Treasurer 2010-present.  
 Science Advisory Panel Member: Kansas Emerald Ash Borer Readiness and Response Plan 2009-present.  
 K-SRE Emerald Ash Borer Response Team; K-State Research and Extension Agriculture and Natural  
 Resources, Manhattan, KS 2010-present.  
 Tree Health Discussion Group: Kansas Forest Service, Kansas Department of Agriculture, and K-State  
 Research and Extension; Manhattan, KS 2012-2013.  
 Tree Campus USA Committee: Advisory Member; Entomology (Kansas State University; Manhattan, KS)  
 2017-present.

### **6. Manuscripts/Books/Manuals/Grant Proposals/and Fact Sheets Reviewed**

Mistaken identity: the hidden threat of onion thrips to greenhouse floriculture IPM programs 2019. Ontario  
 Agri-Food Innovation Alliance Research Program—Ref: UofG2018-3171 (May 29, 2019). Grant  
 Proposal.  
 Efficacy of *Phytoseiulus persimilis* and *Amblyseius swirskii* for IPM in greenhouse cucumbers under the  
 Mediterranean environmental conditions 2019. Journal: BioControl.  
 Life-stage specific effects of biopesticides on *Tetranychus urticae* Koch (Acari: Tetranychidae) 2019.  
 Journal: Journal of Economic Entomology.  
 Light intensity influences feeding and fecundity of two-spotted spider mites, *Tetranychus urticae* (Acari:  
 Tetranychidae) through the responses of host cucumber leaves 2019. Journal: Journal of Economic  
 Entomology.  
 Locust biological control using a new predator-pathogen complex: *Carabus smaragdinus* Fischer coated  
 with *Metarhizium anisopliae* 2019. Journal: Pest Management Science.  
 Economic injury level for macadamia felted coccid (Hemiptera: Eriococcidae) on macadamia nut trees in  
 Hawaii 2019. Journal: Journal of Economic Entomology.  
 Selection of strains of *Beauveria bassiana* (Hypocreales: Cordycipitaceae) for the biological control of  
*Xyleborus affinis* (Curculionidae: Scolytinae) 2019. Journal: Florida Entomologist.  
 Larval feeding of *Cydalima perspectalis* (Lepidoptera: Crambidae) on box trees with focus on spatial and  
 temporal distribution 2019. Journal: Journal of Economic Entomology.

- Parasitism and sex allocation of an aphid parasitoid *Aphidius colemani* (Hymenoptera:Aphididae) 2019. Journal: Journal of Economic Entomology.
- Monitoring and biochemical characteristic of insecticide resistance to dichlorvos and abamectin in the greenhouse strains of *Frankliniella occidentalis* 2019. Journal: Crop Protection.
- Incidence of *Psychoda alternata* (Diptera: Psychodidae) in potted plants at a commercial nursery 2019. Journal: Florida Entomologist.
- Effects of non-contact and contact exposure of insecticides to *Stephanitis pyrioides* Scott (Hemiptera: Tingidae) 2019. Journal: Journal of Economic Entomology.
- A new haplotype and unusual host plant range of *Trialeurodes vaporariorum* (Hemiptera: Aleyrodidae) in northeastern Mexico 2019. Journal: Journal of Entomological Science.
- Beneficial arthropods as potential biocontrol candidates of thrips occurring in Tunisian citrus orchards 2019. Journal: Journal of Plant Diseases and Protection.
- Hunting billbug *Sphenophorus venatus* (Coleoptera: Dryophthoridae) adult feeding and attraction to warm- and cool-season turfgrass 2019. Journal: The Great Lakes Entomologist.
- Evaluating recommended management timings against billbugs (Coleoptera: Dryophthoridae) using a regional intermountain west degree-day model 2019. Journal: Journal of Economic Entomology.
- Variable effect of larval stage on the efficacy of important larvicides against *Listronotus maculicollis* (Coleoptera: Curculionidae) populations with different pyrethroid resistance levels 2019. Journal: Journal of Economic Entomology.
- Hunting billbug *Sphenophorus venatus* (Coleoptera: Dryophthoridae) adult feeding preference and volatile recognition for warm- and cool-season turfgrass 2019. Journal: The Great Lakes Entomologist.
- Imidacloprid soil drenching and the zoophytophagous biocontrol agent *Podisus maculiventris*: survival, longevity, and reproduction 2019. Journal: Crop Protection.
- Mortality of *Aphidius colemani* (Hymenoptera: Braconidae) exposed to foliar- and soil-applied pesticides used in controlled environments 2019. Journal: Journal of Economic Entomology.
- Laboratory efficacy of baits against domiciliary and peridomestic cockroach pests 2019. Journal: Journal of Economic Entomology.
- Attachment ability of the ladybird beetle *Henosepilachna vigintioctopunctata* (Coleoptera: Coccinellidae) onto eggplant leaves 2019. Journal: Environmental Entomology.
- Monitoring and characterization of resistance to pyridalyl in the western flower thrips, *Frankliniella occidentalis* from China 2019. Journal: Crop Protection.
- Adaptation of *Frankliniella occidentalis* over successive generations following transfer on to a new host (kidney bean plants) 2019. Journal: Journal of Pest Science.
- Seasonal abundance and distribution of thrips and its associated natural enemies on rose in Northern India 2018. Journal: Journal of Economic Entomology.
- Applications of kaolin protect fruiting vegetables from brown marmorated stink bug (Hemiptera: Pentatomidae) 2018. Journal: Journal of Economic Entomology.
- A new device for auto-disseminating entomopathogenic fungi: a study case against *Popillia japonica* (Coleoptera: Scarabaeidae) 2018. Journal: Biocontrol Science & Technology.
- Rearing *Frankliniella williamsi* (Hood) and *F. occidentalis* (Pergande) for use in vector and pollen mediated transmission of Maize chlorotic mottle virus on maize in Kenya 2018. Journal: Journal of Economic Entomology.
- Parasitic wasps suppress population growth of the fungus gnat *Neoempheria* spp. in shiitake mushroom cultivation 2018. Journal: Pest Management Science.
- Efficiency of *Amblyseius swirskii* in control of *Tetranychus urticae* and *Trialeurodes vaporariorum* is influenced by various factors 2018. Journal: Journal of Economic Entomology.
- Mating disruption of filbertworm (*Cydia latiferreana*) in Oregon hazelnut orchards 2018. Journal: Journal of Economic Entomology.

- Switching from preventative to curative control approaches for populations of *Listronotus maculicollis* (Coleoptera: Curculionidae) with different pyrethroid resistance levels: how late is too late? 2018. Journal: Journal of Economic Entomology.
- Evaluation of deltamethrin-impregnated nets as a protective barrier against western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae) 2018. Journal: Journal of Economic Entomology.
- Tarnished plant bug (Hemiptera: Miridae) behavioral response to certain classes of insecticides 2018. Journal: Journal of Economic Entomology.
- Population suppression of *Ceratitis capitata* (Diptera: Tephritidae) on table grapes using toxic baits 2018. Journal: Journal of Economic Entomology.
- Evaluation of cross spectrum action of cyantraniliprole against *Diaphorina citri* Kuwayama and *Papilio demolius* Linnaeus under central Indian conditions 2018. Journal: Journal of Economic Entomology.
- Effect of temperature and button and oyster mushroom varieties on biology of fungus gnat, *Lycoriella auripila* (Diptera: Sciaridae) 2018. Journal: International Journal of Pest Management.
- Cross spectrum action of cyantraniliprole against *Diaphorina citri* Kuwayama and *Papilio demolius* L. under field conditions 2018. Journal: Journal of Economic Entomology.
- Lethal and sublethal effects of four insecticides on the seven-spotted lady beetle *Coccinella septempunctata* L. (Coleoptera: Coccinellidae) 2018. Journal: Chemosphere.
- Field evaluation of the aggregation pheromone ethyl 4-methyloctanoate in attracting coconut Rhinoceros beetle (Coleoptera: Scarabaeidae) haplotypes 2018. Journal: Journal of Economic Entomology.
- Exposure to cyantraniliprole causes toxicity and disturbs behavioral and respiratory responses in the coffee berry borer, *Hypothenemus hampei* 2018. Journal: Pest Management Science.
- Laboratory evaluation of trap color and vinegar, yeast and fruit juice lure combinations for monitoring of *Zaprionus indianus* (Diptera: Drosophilidae) 2018. Journal: Journal of Economic Entomology.
- Sterilization of *Drosophila sukuzii*: dose-response under different atmospheric conditions for the application of the sterile insect technique 2018. Journal: Journal of Economic Entomology.
- Integrating biopesticides in pest management strategies for tomato fruitworm: benefits and costs 2018. Journal: Pest Management Science.
- Soil presence and moisture levels during the pupal stage affected physiological and fitness traits of adult *Ectropis griseescens* (Lepidoptera: Geometridae) 2018. Journal: Journal of Economic Entomology.
- Consumption rate of soil dwelling mite (*Hypoaspis sclerotarsa*) on western flower thrips (*Frankliniella occidentalis*) pupae 2018. Journal: Journal of Economic Entomology.
- Influence of sublethal concentrations of thiamethoxam on biological characteristics of *Neoseiulus californicus* McGregor (Acari: Phytoseiidae) 2018. Journal: Journal of Economic Entomology.
- Compatibility of the entomopathogenic fungus *Beauveria bassiana* with etoxazole, spirodiclofen and spiromesifen against *Tetranychus urticae* 2018. Journal: Experimental and Applied Acarology.
- Reevaluating sticky colored traps for community level monitoring of thrips: a quantitative study in a chrysanthemum crop *Dendranthema* (DC) Des Moul (Astereaceae) 2018. Journal: Pest Management Science.
- Application of foliar synthetic elicitors for the management of *Diaphorina citri* (Hemiptera: Liviidae) populations in Tahiti lime 2018. Journal: Journal of Economic Entomology.
- Impact of cover cropping on non-target arthropod pests of Red Maple trees in nursery production 2018. Journal: Journal of Economic Entomology.
- Comparative toxicity of selected conventional and biorational insecticides on the prickly pear cochineal *Dactylopius opuntiae* Cockerell and its predator, *Cryptolaemus montrouzieri* Mulsant 2018. Journal: Crop Protection.
- Mortality of *Aphidius colemani* (Hymenoptera: Braconidae) exposed to foliar- and soil-applied pesticides used in controlled environments 2018. Journal: Journal of Economic Entomology.

- Bionomics of the predatory mite *Neoseiulus californicus* McGregor as affected by feeding on *Tetranychus urticae* Koch inhabiting three different rose cultivars with and without *Podosphaera pannosa* var. *rosae* (wallr.) de Bary, mycelia 2018. Journal: Experimental and Applied Acarology.
- Population growth potential of South American tomato moth, *Tuta absoluta* (Meyrick) (Lepidoptera: Gelechiidae) on tomato, potato and eggplant 2018. Journal: Journal of Economic Entomology.
- Competitive interactions between *Bemisia tabaci* (Hemiptera: Aleyrodidae) MED and MEAM1 on multiple ornamental host plants 2017. Grant Application: Agency: Horticultural Research Institute (The AmericanHort Foundation), Columbus, OH.
- Biological and chemical control of the oriental flower beetle, *Protaetia orientalis* 2017. Grant Application: Agency; Horticultural Research Institute (The AmericanHort Foundation), Columbus, OH.
- Use of long-lasting insecticide netting for IPM strategies in vegetable crops 2017. Grant Application: Agency; Horticultural Research Institute (The AmericanHort Foundation), Columbus, OH.
- Density-dependent demography of the peach fruit moth, *Carposina sasakii* Matsumura (Lepidoptera: Carposinidae) 2017. Journal: Journal of Economic Entomology.
- Chemical and botanical insecticides affecting performance of the ectoparasitoid wasp *Habrobracon hebetor* (Hym.: Braconidae) 2017. Journal: Journal of Economic Entomology.
- Effectiveness of Huwa-San TR50 on tomato russet mite *Aculops lycopersici* (Masse) (Acari: Eriophyidae) 2017. Journal: Journal of Economic Entomology.
- Evaluation of biorational and chemical insecticides for curative, prophylactic and rotational use against chilli thrips, *Scirtothrips dorsalis* South Asia 1 2017. Journal: Journal of Economic Entomology.
- Developing a degree-day model to predict billbug (Coleoptera: Curculionidae) seasonal activity in Utah and Idaho turfgrass 2017. Journal: Journal of Economic Entomology.
- Visual behavior of the black fungus gnat *Bradysia difformis* Frey (Diptera: Sciaridae) enlightened with LEDs 2017. Journal: Entomologia Experimentalis et Applicata.
- Residual toxicity of selected organic insecticides to *Diaphorina citri* (Hemiptera: Liviidae) and non-target effects on *Tamarixia radiata* (Hymenoptera: Eulophidae) in California 2017. Journal: Journal of Economic Entomology.
- Evaluating damage to nursery crops by brown marmorated stink bug 2017. Journal: HortScience.
- Oil and soap for armored and soft scales: pathway to success or slippery slope to failure? 2017. Journal: Journal of Economic Entomology.
- Fitness impact of chlorantraniliprole and adjuvants on the pupa parasitoid *Palmistichus elaeisis* (Hymenoptera: Eulophidae) 2017. Journal: Journal of Economic Entomology.
- Conventional standardized sampling plan for the thrips *Frankliniella schultzei* in three lettuce varieties 2017. Journal: Pest Management Science.
- Lethal and side effects of the acaricides spiroadiclofen and spiromesifen on the two-spotted spider mite, *Tetranychus urticae* Koch, and its predatory mite, *Neoseiulus californicus* McGregor (Acari: Phytoseiidae) 2017. Journal: Experimental and Applied Acarology.
- Combining choice and no-choice bioassays to select for *Bemisia tabaci* resistance and identifying trichome types associated with resistance in tomato 2017. Journal: HortScience.
- Virulence of entomopathogenic nematodes and fungi to cowpea curculio larvae, *Chalcodermus aeneus* (Coleoptera: Curculionidae) 2017. Journal: Journal of Economic Entomology.
- Phenology and natural enemies of a new scale pest, *Acanthococcus* (= *Eriococcus*) *lagerstroemiae* Kuwana (Sternorrhynca: Eriococcidae), of crapemyrtles in Texas 2017. Journal: Journal of Environmental Horticulture.
- Markedly improved capture of *Drosophila suzukii* by a novel trap baited with two independent attractants in the same device 2017. Journal: Journal of Economic Entomology.
- Evaluation of biorational insecticides and DNA barcoding as tools to improve insect pest management in lablab bean (*Lablab purpureus*) in Bangladesh 2017. Journal: Journal of Economic Entomology.

- Bio-efficacy of acephate 95% SG (RIL-059/F195% SG) against insect pests of chilli and effect on crop health and natural enemies 2017. Journal: Crop Protection.
- Variation in susceptibility of the fifth instar nymphs of *Agonoscena pistaciae* (Hemiptera: Aphalaridae), and the coccinellid predator, *Oenopia conglobata* (Coleoptera: Coccinellidae) to some bio-insecticides 2017. Journal: Journal of Economic Entomology.
- Acute, persistent and field toxicity of insecticides to *Frankliniella schultzei* on rose 2017. Journal: Journal of Economic Entomology.
- Sublethal effects of spiroadiclofen on demographic parameters on predatory mite *Neoseiulus californicus* (Acari: Phytoseiidae) 2017. Journal: Experimental and Applied Acarology.
- Acute, persistent and field toxicity of insecticides to flower thrips, *Frankliniella schultzei* Trybom on rose 2017. Journal: Crop Protection.
- Optimizing a mass trapping system design for organic control of the Japanese beetle, *Popillia japonica* (Coleoptera: Scarabaeidae) 2017. Journal: Journal of Economic Entomology.
- Control of different generations of *Dendrolimus punctatus* Walker using *Beauveria bassiana* and deltamethrin 2017. Journal: Journal of the Kansas Entomological Society.
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- Green peach aphid (Hemiptera: Aphididae) control using Brassicaceae ethyl-ester oil sprays 2012. Journal: Journal of Economic Entomology.
- Reproductive biology of solenopsis mealybug, *Phenacoccus solenopsis*: oosorption in response to a male-deficient environment 2012. Journal: Bulletin of Entomological Research.
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- Tritrophic effects of plant growth regulators in an aphid-parasitoid system 2012. Journal: Biological Control.
- Silicon does not bioaccumulate in *Capsicum annum* leaves at sufficient levels to control *Scirtothrips dorsalis* Hood (Thysanoptera: Thripidae) 2012. Journal: The Florida Entomologist.
- Effects of spinosad and  $\lambda$ -cyhalothrin on spider diversity in cabbage fields in South Texas 2012. Journal: Journal of Economic Entomology.
- Spatial distribution of brown marmorated stink bug injury in apple orchards in Mid-Atlantic states 2012. Journal: Journal of Economic Entomology.
- Modeling the impact of climate change on potential geographic distribution of invasive mealybug *Phenacoccus solenopsis* Tinsley (Hemiptera: Pseudococcidae) in India using DIVA-GIS and MAXENT 2012. Journal: International Journal of Pest Management.
- Field test and cost comparison of the efficacy of emamectin benzoate against cotton thrips, *Thrips palmy* Karny (Thysanoptera: Thripidae) with various spray application techniques in an orchid nursery 2012. Journal: Crop Protection.
- Caterpillar feeding responses to sorghum leaves with altered lignin levels 2012. Journal: Entomologia Experimentalis et Applicata.
- Mechanisms underlying imidacloprid-induced outbreaks of spider mites on boxwood shrubs: Effects on natural enemies and fecundity of *Eurytetranychus buxi* (Acari: Tetranychidae) 2011. Journal: Journal of Economic Entomology.
- Use of spinosad and predatory mites (Acari) for the management of *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae) in low-tunnel grown strawberry 2011. Journal: Entomologia Experimentalis et Applicata.
- Effects of X radiation on *Tuta absoluta* (Lepidoptera: Gelechiidae): Implications for the inherited sterility approach 2011. Journal: Journal of Economic Entomology.
- Combining *Beauveria bassiana* (Balsamo) Vuillemin with low-dosage spinosad against *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae) 2011. Journal: Pest Management Science.

- Investigating a replacement for malathion in bait sprays for fruit fly control in South African citrus orchards 2011. Journal: Journal of Economic Entomology.
- Insecticide screening of western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae) in laboratory 2011. Journal: Journal of Economic Entomology.
- Field cage study of spinosad-based bait efficacy on *Bactrocera cucurbitae*, *Dacus ciliatus* and *Dacus demmerezi* (Diptera: Tephritidae) in Reunion Island 2011. Journal: Journal of Economic Entomology.
- Effect of mulch type and insecticide on incidence of tomato spotted wilt, plant growth and yield of tomato 2011. Journal: HortScience.
- Ultra violet light emitting trap (UV LED) for the West Indian sweet potato weevil, *Eusepeus postfascistus* (Fairmaire) (Coleoptera: Curculionidae) 2011. Journal: Journal of Economic Entomology.
- Study on the relationship between a new invasive mealybug *Phenacoccus solenopsis* Tinsley (Hemiptera: Pseudococcidae) and the native ant *Pristomyrmex pungens* in China 2011. Journal: Journal of Insect Behavior.
- Synthetic insecticides in agro-ecosystems: how detrimental to non-target fauna are they? 2011. Journal: Biological Control.
- Effects of azadirachtin on *Tetranychus urticae* (Acari: Tetranychidae) and compatibility with predatory mites (Acari: Phytoseiidae) on strawberry 2011. Journal: Experimental and Applied Acarology.
- Toxicity of insecticidal soaps to the Asian citrus psyllid (*Diaphorina citri*) and natural enemies 2011. Journal: Journal of Economic Entomology.
- Evaluation of the quality of two lyophilized artificial diets for *Euschistus heros* (Heteroptera: Pentatomidae), using damage and development of the egg parasitoids, *Telenomus podisi* and *Trissolcus basalis* (Hymenoptera: Platygasteridae), as criteria 2011. Journal: Journal of Economic Entomology.
- The effect of emamectin benzoate on two parasitoids, *Aphidius colemani* Viereck (Hymenoptera: Aphidiniinae) and *Eretmocerus mundus* Mercet (Hymenoptera: Aphelinidae) used in pepper greenhouses 2011. Journal: Crop Protection.
- Repellent effect of leaf vegetables treated with neem formulation on the cabbage armyworm: laboratory and field findings 2011. Journal: HortScience.
- New greenhouse structures and the challenges of pest and disease management 2011. Journal: Annuals of Applied Biology.
- Growth performance of the red palm weevil, *Rhynchophorus ferrugineus* on semiartificial diets 2011. Journal: Journal of Economic Entomology.
- Effect of *Plutella xylostella* genotype and spinosad and lambda-cyhalothrin insecticides on two natural enemies, *Diadegma insulare* (Hymenoptera: Ichneumonidae) and *Coleomegilla maculata* (Coleoptera: Coccinellidae) 2011. Journal: Journal of Economic Entomology.
- Cross-resistance and biochemical mechanisms of abamectin resistance in the western flower thrips, *Frankliniella occidentalis* 2011. Journal: Pest Management Science.
- Impact of UV-absorbing nets on the spatio-temporal dynamics of *Macrosiphum euphorbiae* (Hemiptera: Aphididae) in lettuce crops 2011. Journal: HortScience.
- Repellent effects of the essential fruit oil from *Pittosporum undulatum* Vent. (Pittosporales: Pittosporaceae) against *Aphis fabae* Scopoli (Homoptera: Aphididae) 2011. Journal: Crop Protection.
- Effect of temperature on prey consumption of *Scolothrips longicornis* on *Tetranychus urticae* 2011. Journal: Journal of Economic Entomology.
- Acaricidal and repellent effects of essential oils from Australian Myrtaceae family against two-spotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae) 2011. Journal: Australian Journal of Entomology.
- The impact of 9 insecticides on the natural enemies of *Spodoptera exigua* 2011. Journal: Biological Control.
- Larval and pupal susceptibility of the hoverfly, *Episyrphus balteatus* (DeGeer) to selected insecticides 2011. Journal: Journal of Pest Science.

- Possibility to convert insect pest to beneficial for greenhouse crops; Case of fungus gnat (*Bradysia impatiens*) 2011. Journal: Journal of Applied Entomology.
- Long-term persistence and efficacy of spinosad against beet armyworm, *Spodoptera exigua* (Lepidoptera: Noctuidae), in pepper foliage 2011. Journal: Journal of Economic Entomology.
- Attraction and oviposition responses of the fungus gnat *Bradysia impatiens* to microbes and microbe-inoculated seedlings in laboratory bioassays 2011. Journal: Entomologia Experimentalis et Applicata.
- Managing mango fruit flies (Diptera: Tephritidae) with an environmentally sound technique: The use of spinosad-based protein bait sprays and sanitation in mango orchards in Benin, West Africa 2011. Journal: Journal of Economic Entomology.
- Toxicity of different acaricides to *Typhlodromus pyri* adult females 2011. Journal: BioControl.
- Rearing and insecticide screening of western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae) in laboratory 2011. Journal: Journal of Economic Entomology.
- Insecticidal activity of plant essential oils against the vine mealybug *Planococcus ficus* (Hemiptera: Pseudococcidae) 2011. Journal: Journal of Pest Science.
- Impact of UV-absorbing nets on the spatio-temporal dynamics of *Macrosiphum euphorbiae* (Hemiptera: Aphididae) in lettuce crops 2010. Journal: HortScience.
- Reducing fertilization: a management tactic against western flower thrips on roses 2010. Journal: Journal of Economic Entomology.
- Natural biological control of pest mites in Brazilian sun coffee agroecosystems 2010. Journal: Recent Patents on Food, Nutrition, and Agriculture.
- Activities of essential oil from *Asarum heterotropoides* var. *mandshuricum* against two-spotted mite (*Tetranychus urticae* Koch) 2010. Journal: Phytoparasitica.
- Effect of soluble silicon on biochemical defense responses induced in bean leaves by the two-spotted spider mite 2010. Journal: Environmental and Experimental Botany.
- Management of Nantucket pine tip moth (Lepidoptera: Noctuidae) in Virginia pine Christmas trees using insecticides and mechanical shearing 2010. Journal: Journal of Economic Entomology.
- An analytical model to predict the number of parasitic wasps needed for controlling herbivorous pests in greenhouses 2010. Journal: BioControl.
- Antiproliferative effect of azadirachtin A on *Spodoptera litura* S1-1 cell line through cell cycle arrest and apoptosis induced by up-regulation of p53 2010. Journal: Pesticide Biochemistry and Physiology.
- Influence of irrigation and temperature on two-spotted spider mite and aphid populations in container-grown roses 2010. Journal: HortScience.
- Flight-mill performance of the green lacewing, *Chrysoperla sinica* (Tjeder) (Neuroptera: Chrysopidae) as function of age, temperature, and relative humidity 2010. Journal: Journal of Economic Entomology.
- Field efficacy of entomopathogenic nematode formulations against *Helicoverpa armigera* in chickpea ecosystem 2010. Journal: Journal of Biopesticides.
- Compatibility of deltamethrin and spinosad with three indigenous *Trichogramma* species of interest in integrated control against *Prays oleae* (Lepidoptera, Hyponomeutidae) 2010. Journal: Journal of Economic Entomology.
- Plant essential oils toxicity to *Tetranychus urticae* Koch (Acari: Tetranychidae) 2010. Journal: Journal of Agricultural Science and Technology.
- Biological control of the citrus red mite *Panonychus citri* (McGregor) (Acarina: Tetranychidae) by predator mite *Typhlodromus athiasae* Porath and *Swirskii* (Acari: Phytoseiidae) on two citrus cultivars in greenhouse 2010. Journal: Biological Control.
- Fertilization affects constitutive and wound-induced chemical defenses in *Gerbera jamesonii* 2010. Journal: Journal of the American Society of Horticultural Sciences.
- Biological and growth regulating activities of PONNEEM, a phytopesticidal oil formulation against *Spodoptera litura* (Fab.) and its biosafety on *Trichogramma chilonis* Ishnii 2010. Journal: Journal of Pesticide Science.

- Mini-aspirator: a new device for collection and infestation of small arthropods 2010. Journal: *Entomologia Experimentalis et Applicata*.
- Effects of fertilization of four hemlock species on *Adelges tsugae* (Hemiptera: Adelgidae) growth and feeding preferences of its predator 2010. Journal: *Journal of Economic Entomology*.
- Potential of winter squash varietal mixtures to improve striped cucumber beetle trap crop performance in organic cucumber production 2010. Journal: *Pest Management Science*.
- Chemical composition and mosquito larvicidal activities of the essential oils of *Salvia* L. (Lamiaceae) 2010. Journal: *Biochemical Systematics and Ecology*.
- The efficacy of two neem-based formulations to control the cabbage aphid, *Brevicoryne brassicae* (L.) 2010. Journal: *Journal of Applied Entomology*.
- Chemical characterization of essential oils cultivated in Colombia and their repellent activity towards *Tribolium castaneum* (Herbst) 2010. Journal: *Bulletin of Entomological Research*.
- Toxicity of three insecticides to *Lysiphlebus fabarum* (Marshall) (Hymenoptera: Braconidae), a thelytokous parasitoid of the black bean aphid 2010. Internal Review: Department of Entomology; Kansas State University, Manhattan, KS.
- Descriptions of injury and damage caused by flower thrips, *Frankliniella* spp. to rabbiteye blueberries, *Vaccinium ashei*, and implications for management decisions 2009. Journal: *Pest Management Science*.
- Xylem transport models optimize effectiveness of systemic insecticide applications for controlling hemlock woolly adelgid 2009. Journal: *Journal of Economic Entomology*.
- Insecticidal effect of four commercially available grain protectants against nine stored product insects 2009. Journal: *Journal of Insect Science*.
- Imidacloprid-induced cascade effect on some chemical elements in rice plants and the brown planthopper *Nilaparvata lugens* (Hemiptera: Delphacidae) 2009. Journal: *Journal of Economic Entomology*.
- Efficacy of an esfenvalerate plus methoprene aerosol for the control of eggs and fifth instars of the Indianmeal moth (Lepidoptera: Pyralidae) 2009. Journal: *Insect Science* (internal review).
- Understanding the dynamics of neonicotinoid activity in the management of *Bemisia tabaci* whiteflies on poinsettias 2009. Journal: *Crop Protection*.
- Effects of pyrethroid insecticides bifenthrin and cyfluthrin on *Populus* saplings 2009. Journal: *Journal of Economic Entomology*.
- Dispersal and development of bagworm larvae on three host 2009. Journal: *Environmental Entomology*.
- Developmental, growth and reproductive costs for *Coccinella undecimpunctata* fed on *Myzus persicae* treated with pirimicarb or pymetrozine 2009. Journal: *BioControl*.
- Impact of Synergy-505 on the biology and life table parameters of a non-target assassin bug, *Rhynocoris marginatus* (Fabricius) 2009. Journal: *Journal of Insect Science*.
- Population dynamics and within plant distribution of *Frankliniella* spp. thrips (Thysanoptera: Thripidae) in cotton 2009. Journal: *Environmental Entomology*.
- Efficacy of mixtures of bifenazate and organophosphates on organophosphate resistant *Tetranychus urticae* strains 2009. Journal: *Experimental and Applied Acarology*.
- Efficacy of pymetrozine against *Myzus persicae* (Hemiptera: Aphididae) and in reducing Potato Virus Y transmission on tobacco plants 2009. Journal: *Journal of Economic Entomology*.
- Toxicity of selected insecticides to the two-spot ladybird *Adalia bipunctata* 2009. Journal: *Phytoparasitica*.
- Evaluation of organic insecticides to control *Murgantia histrionica* and *Microtheca ochroloma* on leafy greens 2009. Journal: *International Journal of Vegetable Science*.
- Responses of green peach aphid and arthropod community to garlic as a deterrent crop in flue-cured tobacco fields 2009. Journal: *Journal of Pest Science*.
- Effects of botanical pesticides and biological agents on *Orius laevigatus*—*Frankliniella occidentalis* dynamics in a Mediterranean greenhouse 2009. Journal: *BioControl*.
- Effects of botanical pesticides and biological agents *Orius laevigatus* (Fieber)—*Frankliniella occidentalis* (Pergande) dynamics in a cold Mediterranean greenhouse 2009. Journal: *Journal of Pest Science*.



- Evaluation of lethal and sublethal effects of neonicotinoid insecticides on biocontrol agents of glassy-winged sharpshooters 2008. Grant Proposal: California Department of Food and Agriculture; Pierce's Disease Grant Management, Sacramento, CA.
- Efficacy of pymetrozine against *Myzus persicae* (Hemiptera: Aphididae) and in reducing potato virus Y transmission on tobacco plants 2008. Journal: Journal of Economic Entomology.
- Mating behavior of the cabbage beetle, *Colaphellus bowringi* Baly (Coleoptera: Chrysomelidae) 2008. Journal: Insect Science.
- Reproductive biology of the predatory mite *Parasitus consanguineus* (Acari: Parasitidae) fed on phorid and sciarid larvae 2008. Journal: Experimental and Applied Acarology.
- Selected miticides for use on ornamental plants 2008. Fact sheet: University of Florida Mid-Florida Research and Education Center; Cut Foliage Research, Note RH-08-A.
- Pear psylla nymphal feeding resistance in a diverse collection of *Pyrus* germplasm 2008. Journal: HortScience.
- The effects of temperature, humidity and light on the mating frequency of *Bradysia odoriphaga* 2008. Journal: Journal of Pest Science.
- Sublethal effects of fenpyroximate on life table parameters and biological performance of *Phytoseius plumifer* (Acari: Phytoseiidae) predator of *Tetranychus urticae* (Acari: Tetranychidae) 2008. Journal: Journal of Economic Entomology.
- Effect of constant temperatures on the developmental biology of the mealybug, *Paracoccus marginatus* Williams and Granara de Willink (Hemiptera: Pseudococcidae) 2008. Journal: Journal of Economic Entomology.
- Population dynamics of *Phorodon humuli* and predators within hop cones: Control and influence on crop quality parameters 2008. Journal: HortScience.
- The effect of time of whitefly infestation on plant nutrition and the development of tomato irregular ripening disorder 2008. Journal: HortTechnology.
- Insecticides Applaud and Lorsban efficacy on vine mealybug 2008. Journal: Journal of Economic Entomology.
- Nutrient availability affects western flower thrips feeding damage and subsequent accumulation of jasmonic acid in *Gerbera jamesonii* 2008. Journal: Journal of the American Society for Horticultural Science.
- Differences in defoliation of fruit genotypes by Japanese beetle (Coleoptera: Scarabaeidae) feeding 2008. Journal: HortScience.
- Combined effects of *Bacillus thuringiensis* and botanicals on the feeding, growth and development of the bollworm, *Helicoverpa armigera* 2008. Journal: Journal of Insect Science.
- Effect of insecticides against the mealybug, *Cataenococcus ensete*, attacking *Ensete ventricosum* in Southern Ethiopia 2008. Journal: Journal of Insect Science.
- Growth and yield of young orange trees treated with insecticides 2008. Journal: HortScience.
- Tackling trouble: your Northeast home and garden problem solver—The IPM way 2008. Book Review: Cornell University Press; Ithaca, NY.
- Insect-killing fungi and predatory mites with banker plants for thrips IPM. 2008. Grant Proposal (American Floral Endowment).
- Same-shape distribution model and rate-summation prediction of Russian wheat aphid reproduction under variable temperatures 2007. Journal: Environmental Entomology.
- Insecticide resistance management strategies in *Frankliniella occidentalis* 2007. Journal: Pest Management Science.
- Management of weeping fig thrips (*Gynaikothrips uzeli*) inside galls 2007. Journal: HortTechnology.
- Mating behavior of the Japanese pine sawyer, *Monochamus alternatus* (Coleoptera: Cerambycidae) 2007. Journal: Insect Science.
- Metarhizium anisopliae* as an alternative for the control of the cotton stainer bug *Dysdercus peruvianus* (Hemiptera: Pyrrhocoridae) 2007. Journal: Pest Management Science.

- Characterization of boll weevils (Coleoptera: Curculionidae) captured during non-cotton season and survival of adults after feeding on selected pollens 2007. Journal: Insect Science.
- Susceptibilities to insecticides of the aphid, *Lipaphis erysimi*, three predacious ladybirds and two parasitoid wasps 2007. Journal: Insect Science.
- Phenolic profiles of cranberry leaves: variation in concentration of possible insect feeding deterrents 2007. Journal: HortScience.
- Biological control of twospotted spider mite with predatory mite, *Neoseiulus californicus*, in strawberries 2007. Journal: Experimental and Applied Acarology.
- Development of entomopathogenic nematodes and beneficial insects for biological plant protection in greenhouses 2007. Grant Proposal: Science Center Programs—U. S. Department of State.
- Pesticides sublethal effects disturb the growth increase rate and the olfactory response of a predatory mite 2007. Journal: Biological Control.
- Toxicity of neonicotinoids to tephritid fruit flies 2007. Journal: Journal of Insect Science.
- Evaluation of some insecticides against Enset root mealybug (*Cataenococcus ensete*) in Southern Ethiopia 2007. Journal: International Journal of Pest Management.
- Extracts of *Juglans regia* leaves against *Tetranychus viennensis* and *Tetranychus cinnabarinus* (Acari: Tetranychidae) 2007. Journal: Journal of Economic Entomology.
- Side-effects of three acaricides on predatory mite, *Phytoseiulus persimilis* Athias-Henriot (Acari: Phytoseiidae) in laboratory conditions 2007. Journal: Journal of Agricultural Science and Technology.
- Predation of edaphic arthropods and nematodes on the mites *Ologamasus* sp. and *Protogamasellopsis dioscorus* (Acari: Rhodacaroidea: Ologamasidae and Rhodacaridae) 2007. Journal: Bulletin of Entomological Research.
- Biological control of *Bradysia matogrossensis* (Diptera: Sciaridae) in mushroom cultivation with predatory mites 2006. Journal: Experimental and Applied Acarology.
- 'AC Felix Leclerc' Canadian Artist Rose 2006. Journal: HortScience.
- Larvicidal activity of novaluron, a chitin synthesis inhibitor, against *Musca domestica* 2006. Journal: Journal of Insect Science.
- The effect of garlic extract and root substrate on soil-borne fungal pathogens 2006. Journal: HortTechnology.
- Factors influencing the use of trap plants in potted chrysanthemum for the control of *Frankliniella occidentalis* (Thysanoptera: Thripidae) in greenhouses 2006. Journal: Environmental Entomology.
- Control of carrot weevil, *Listronotus oregonensis* (LeConte), by seed treatment, in-furrow, and foliar application of pesticides in processing carrots 2006. Journal: Journal of Agricultural and Urban Entomology.
- Biotechnology of secondary metabolites of fungi as resources for the development of new pesticides 2006. Grant Proposal: Science Center Programs—U. S. Department of State.
- Controlling foliage diseases and Japanese beetle feeding damage using biopesticides in roses and oakleaf hydrangea 2006. Journal: HortScience.
- Hot water drenches for the control of fungus gnat infestations of New Guinea impatiens and poinsettia potting media 2006. Journal: HortScience.
- Tetranychus urticae* and *Panonychus ulmi* (Tetranychidae) mortality and oviposition in responses to new-chemistry insecticides 2006. Journal: Journal of Entomological Science.
- Response of whiteflies, twospotted spider mites, and predatory mites to *Citrullus* accessions 2005. Journal: HortScience.
- Six year investigation of a citrus block in Florida with brown citrus aphids 2005. Journal: HortScience.
- Manipulating fertilization: A management tactic against *Frankliniella occidentalis* (Pergande) (Thysanoptera: Thripidae) on potted chrysanthemum 2005. Journal: Journal of Economic Entomology.
- Frankliniella occidentalis* Pergande chemical control: residues associated with the three consecutive spray strategy 2005. Journal: Australian Journal of Experimental Agriculture.

- Monitoring thrips presence in flue-cured tobacco using yellow sticky traps 2005. Journal: Journal of Entomological Science.
- Insecticides differentially affect gas exchange, vegetative and floral development, and overall quality of gerbera (*Gerbera jamesonii* var. Festival Salmon) 2005. Journal: HortScience.
- Host associations and biology of *Erythmelus* sp. (Hymenoptera: Mymaridae), an egg parasitoid of lace bugs (Hemiptera: Tingidae) in Missouri, USA with particular reference to *Corythucha arcuata* 2005. Journal: Journal of the Kansas Entomological Society.
- Greenhouse and field evaluation of neonicotinoids against the greenhouse whitefly, *Trialeurodes vaporariorum* on tomato 2005. Journal: Pest Management Science.
- Effects of *Paecilomyces fumosoroseus* and *Encarsia formosa* on the control of greenhouse whitefly: preliminary assessment of a tritrophic interaction investigation 2005. Journal: BioControl.
- Quick visual estimates of thrips (Thysanoptera: Thripidae) densities on cucumber and rose crops 2005. Journal: Journal of Economic Entomology.
- Survey for *Nosema bombi* and other potential causal agents for the decline of *Bombus* species in North America 2005. Grant Proposal: Research Board; University of Illinois, Champaign-Urbana, IL.
- Utilization of systemic action of botanical insecticides in control of cultural crops against insect pests 2005. Grant Proposal: Czech Science Foundation; Czechoslovakia, Central Europe.
- Combined effect of digestive enzyme inhibitor and predator in biological control of stored mite pest *Acarus siro* 2005. Journal: Biological Control.
- Summer weeds as hosts for *Frankliniella occidentalis* Pergande and *F. fusca* (Hinds) (Thysanoptera: Thripidae) and as reservoirs for tomato spotted wilt virus in North Carolina 2004. Journal: Journal of Economic Entomology.
- Ecologically based IPM of major insect pests of ornamentals and vegetables grown in controlled environments 2004. Hatch Proposal: Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL.
- Zohar LQ-125, a biorational detergent for controlling the sweetpotato whitefly, *Bemisia tabaci* 2004. Journal: Pest Management Science.
- Controlling a major aquatic plant pest China mark moth, *Nymphulielia daeckealis* (Haimbach) 2004. FactSheet: University of Maryland Extension Publication.
- Effect of insecticides on the parasitization rate of *Tiphia vernalis* (Hymenoptera: Tiphidae) on *Popillia japonica* (Coleoptera: Scarabaeidae) larvae 2004. Journal: Journal of Economic Entomology.
- Parasitism success of *Tiphia vernalis* (Hymenoptera: Tiphidae) against Japanese beetle, *Popillia japonica* (Coleoptera: Scarabaeidae), as affected by in vitro exposure to insecticides 2004. Journal: Journal of Economic Entomology.
- Evaluation of alternative control agents for control of European corn borer (*Ostrinia nubilalis* Hubner) or corn flea beetle (*Chaetocnema pulicaria* Melsheimer) attacking sweet corn 2004. Journal: Journal of Vegetable Crop Production.
- Interiorscape insect pest management. 2004. FactSheet: University of Florida Extension publication..
- Soil and *Diaprepes abbreviatus* root weevil spatial variability and biological zoning in a poorly drained citrus grove in Florida. 2003. Journal: Soil Science Society of America Journal.
- Research on the impacts of the anti-stress commercial preparation on the flower quality in carnation. 2003. Journal: Acta Agriculturae Scandinavica Section B.
- Integrated pest management for park districts. Safer Pest Control Project. 2003. Publication: Manual.
- Tissue P, but not N, in *Impatiens wallerana* affects western flower thrips (*Frankliniella occidentalis*) population growth and plant damage. 2003. Journal: HortScience.
- Interactions between native and exotic parasitoids attacking the native evergreen bagworm in central Illinois. 2003. Grant Proposal (Research Board): Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL.

- Reducing pesticide use in commercial greenhouses through the use of nematodes for biological control of fungus gnats, *Bradysia* spp. 2003. Grant Proposal (Minnesota).
- Field and laboratory evaluations of *Bacillus thuringiensis* to control elm leaf beetle, *Xanthogaleruca luteola* (Muller) (Coleoptera: Chrysomelidae) 2003. Journal: Journal of Economic Entomology.
- Evaluation of *Amblyseius cucumeris* (Acari: Phytoseiidae) and *Orius insidiosus* (Hemiptera: Anthocoridae) for control of *Frankliniella occidentalis* (Thysanoptera: Thripidae) on greenhouse tomatoes 2002. Journal: Biological Control.
- Yellow sticky card traps equipped with light-emitting diodes for catching whiteflies (Homoptera: Aleyroididae) and other insects in greenhouses 2002. Journal: Journal of Economic Entomology.
- Verbena cultivars differentially attract adult western flower thrips but not whiteflies 2002. Journal: HortScience.
- Effects of parasitoid density and arena size on progeny production of *Anaphes iole* Girault (Hymenoptera: Mymaridae) 2002. Journal: Journal of Entomological Science.
- Feeding preference of western flower thrips for pollen of different amaryllis genotypes 2002. Journal: HortScience.
- Biological substitutes for pesticides 2002. Journal: Trends in Biotechnology.
- The entry of sweetpotato whiteflies (Homoptera: Aleyrodidae) into greenhouses through screened roof vents 2002. Journal: Journal of Economic Entomology.
- Integrated pest management of fungus gnat *Bradysia* spp. in commercial greenhouses 2002. Grant Proposal: University of Minnesota; Minneapolis, MN.
- Controlling a major nursery pest-black vine weevil, *Otiorhynchus sulcatus* (Fabricius) 2002. FactSheet: University of Maryland Extension Publication.
- Effects of fertilization on insect resistance of woody ornamental plants: Reassessing an entrenched paradigm 2001. Journal: Environmental Entomology.
- Effect of soilless potting media and water management on development of fungus gnats (Diptera: Sciaridae) and plant growth 2001. Journal: HortScience.
- Controlled atmosphere anoxia treatments as a potential disinfestation technique for arthropod pests in greenhouses 2000. Journal: Journal of Economic Entomology.
- A survey of biological control users in midwest greenhouse operations 2000. Journal: American Entomologist.
- Dole, J. M., and H. F. Wilkins. 1999. Chapter 8: Pest management, pp. 105-122. *In* Floriculture: Principles and Species, Prentice-Hall, Inc. 613 pgs. Publication: Book Chapter.
- Lawncare pesticide application equipment: A guide to selection and calibration of granular spreaders PPP-46. Purdue University Cooperative Extension Service; West Lafayette, IN 1999. Extension Publication: Manual.
- Control of black wine weevil, *Otiorhynchus sulcatus* in greenhouse and perennial plants 1999. Journal: HortScience.
- Glucosinolate-rich cultivars and mulches as replacements for pesticides 1999. Grant Proposal: Department of Natural Resources and Environmental Sciences; University of Illinois, Urbana, IL.
- Whitefly (Homoptera-Aleyrodidae) control in greenhouses. 1999. FactSheet: University of Maryland Cooperative Extension Publication.

## 7. Promotion and Tenure Documentation Reviewed

- West Virginia University: College of Agriculture, Natural Resources, and Design; Morgantown, WV. Dr. Daniel L. Frank; Promotion from Assistant Professor to Associate Professor. 2017.
- University of Idaho: College of Agricultural and Life Sciences; Department of Plant, Soil and Environmental Sciences, Moscow, ID. Dr. James Barbour; Promotion from Associate Professor to Full Professor. 2013.

Ohio State University: College of Biological Sciences; College of Food, Agricultural & Environmental Sciences, Department of Entomology, Columbus, OH. Dr. Luis Canas; Promotion from Assistant Professor to Associate Professor. 2008.

University of California—Riverside: College of Agricultural and Natural Sciences; Department of Entomology, Riverside, CA. Dr. Frank Byrne; Promotion from Assistant Specialist to Associate Research Entomologist. 2008.

Texas A & M University: College of Agriculture and Life Sciences; Department of Entomology, College Station, TX. Dr. Carlos Bogran; Promotion from Assistant Professor and Extension Specialist to Associate Professor and Extension Specialist. 2007.

## MISCELLANEOUS

### 1. Undergraduate Projects: California Polytechnic State University—San Luis Obispo; San Luis Obispo, CA

Fungicide efficacy on *Pythium ultimum* of bedding plant seedlings 1990.

Fungicide efficacy on *Xanthomonas campestris* pv. *syngonii* on *Syngonium* ‘White Butterfly’ and ‘Tri-leaf Wonder’ 1990.

Herbicide trials with bedding plants and ground covers. Ronstar 2G and Ronstar 50WP weed control and phytotoxicity using various annual bedding plants 1990.

### 2. Memberships

Entomological Society of America (ESA).

American Phytopathological Society (APS).

American Society for Horticultural Sciences (ASHS).

International Organization for Biological Control (IOBC).

Phi Kappa Phi Honor Society.

Gamma Sigma Delta.

Association of Education and Research Greenhouse Curators (AERGC)

Epsilon Sigma Phi (Cooperative Extension Professionals’ Organization)

Kansas Entomological Society (KES).

International Society of Arboriculture (ISA).

### 3. Conferences/Workshops/Symposiums Organized

Kansas Greenhouse Growers Association Educational Event; October 30, 2018. Manhattan, KS.

Fifty individuals attended the educational event.

Kansas Greenhouse Growers Association Educational Workshop; October 18, 2016. Manhattan, KS.

Thirty-five attended the educational workshop.

Kansas Greenhouse Growers Association Educational Workshop; October 21, 2015. Manhattan, KS.

Fifty individuals attended the educational workshop.

Kansas Greenhouse Growers Association Educational Program; October 28, 2013. Manhattan, KS. Forty-five individuals attended the educational program.

Co-organizer (with Randy Martin: BioWorks, Inc., Victro, NY) of Member Symposium—Holistic Pest Management: Realistic Integration of Biological, Chemical, and Cultural Strategies in Horticultural Production Systems. Entomological Society of America Annual Meeting; November 11, 2012.

Knoxville, TN.

Kansas Greenhouse Growers Association Educational Program; October 25, 2012. Manhattan, KS. Thirty-five individuals attended the educational program.

Co-organizer of Symposium—Greenhouse Pest Management: Past, Present, and Future. Entomological Society of America Annual Meeting; November 13, 2011. Reno, NV.

Kansas Greenhouse Growers Association Educational Program; October 27, 2011. Manhattan, KS. Forty individuals attended the educational program.

Society of American Florists 24<sup>th</sup> Annual Conference on Pest and Disease Management in Ornamentals; February 28-March 1, 2008. Atlanta, GA.

Greenhouse Pest Management Symposium: Research, Implementation, and Opportunities. December 9, 2007. Entomological Society of America Annual Meeting, San Diego, CA.

Seventh Annual Greenhouse Management Workshop; June 8, 2005. Bloomington, IL. Twenty-five individuals attended the workshop.

Sixth Annual Greenhouse Management Workshop; August 12, 2004. Bloomington, IL. Thirty-one individuals attended the workshop.

Fifth Annual Greenhouse Management Workshop; August 5, 2003. Bloomington, IL. Thirty individuals attended the workshop.

Fourth Annual Greenhouse Management Workshop; June 4, 2002. Naperville, IL. Sixty individuals attended the workshop.

NCR-125 Symposium: Biological Control in Urban Environments and Interior Plantscapes; March 27, 2002. North Central Branch Entomological Society of America Annual Meeting; East Lansing, MI.

Third Annual Greenhouse Management Workshop; June 11, 2001. Springfield, IL. Forty individuals attended the workshop.

Second Annual Greenhouse Management Workshop; June 20, 2000. Naperville, IL. One-hundred and eleven individuals attended the workshop.

First Annual Pest Management in Greenhouses Workshop; June 24, 1999. Urbana, IL. Seventy-five individuals attended the workshop.

Formal Conference: Arthropod Pests of Ornamentals. 1997. Entomological Society of America Annual Meeting, Nashville, TN.

Formal Conference: Arthropod Pests of Ornamentals. 1996. Entomological Society of America Annual Meeting, Louisville, KY.

Midwest Graduate Student Committee for Biological Control Conference. 1995. North Central Branch Entomological Society of America Annual Meeting; Lexington, KY.

#### **4. Department Opportunities: Department of Entomology; Purdue University, West Lafayette, IN**

Member of Linnaean Team 1992-93:

A. Entomological Society of America Annual Meeting Champions; Baltimore, MD 1992.

B. North Central Branch Annual Meeting Champions; Fargo, ND 1993.

Assistant: Insect Expo; Indianapolis, IN 1993.

Department Liaison: Committee for the Education of Teaching Assistants (CETA) 1993-95.

Planning Committee Member: Purdue Pest Control Conference 1996-1998.

Sign Manager: Purdue Pest Control Conference 1994-1997.

Participant: Eighth Annual Student Paper Competition; Cincinnati, OH. October 26, 1993.

Participant: Tenth Annual Student Paper Competition; Lexington, KY. November 4, 1995.

Public Speaker Listing 1993-1995.

Graduate School Representative for Thomas Say Society 1995-1996.

Participant: Master Gardener Training Program Workshops 1996, 1997, and 1998.

#### **5. Department Opportunities: Department of Ornamental Horticulture: California Polytechnic State University—San Luis Obispo; San Luis Obispo, CA**

Pesticide Applicator 1988-1990.

Greenhouse Manager 1990.

Tissue Culture Club President 1989-1990.

Tissue Culture Club Treasurer 1986-1988.

Associated Landscape Contractors of America (ALCA) Competition:

A. San Luis Obispo, CA: April 8-10, 1988

a. First Place: Woody Plant Identification

b. First Place: Disease and Pest Identification

- c. First Place: Interior Plant Identification
- B. Milwaukee, WI: April 7-9, 1989
- a. First Place: Disease and Pest Identification
- b. First Place: Interior Plant Identification
- c. Second Place: Woody Plant Identification
- d. Team Captain
- C. Fort Collins, CO: April 6-8, 1990
- a. First Place: Woody Plant Identification
- b. First Place: Interior Plant Identification
- c. Third Place: Weed and Turf Identification
- d. Second Place Superstar Overall

## 6. Additional Miscellaneous Activities

- Grant Writing Workshop Certification of Completion 2001.
- Insects: Stewardship days (October 10, 2002. DeWitt County, IL).
- Insects: Stewardship days (October 9, 2001. DeWitt County, IL).
- Insects: Stewardship days (October 4 and 5, 2000. DeWitt County, IL).
- Entomology Judge. Illinois State Fair Junior Department: Illinois State Fair; Springfield, IL. August 15, 2002.
- Entomology Judge. Illinois State Fair Junior Department: Illinois State Fair; Springfield, IL. August 15, 16, and 18, 2001.
- Entomology Judge. Illinois State Fair Junior Department: Illinois State Fair; Springfield, IL. August 15 and 16, 2000.
- Entomology Judge. Illinois State Fair Junior Department: Illinois State Fair; Springfield, IL. August 15 and 21, 1999.
- Foreign exploration in Honduras, Central America. 1997. Search for potential natural enemies (parasitoids) of the giant whitefly, *Aleurodicus dugesii*. Funding provided by Texas A & M; College Station, TX.
- Treasurer of Pi Alpha Xi 1994-1995.
- S-255 Annual Report for Indiana. 1994. C. R. Edwards, L. W. Bledsoe, M. N. Anwar, and R. A. Cloyd. Department of Entomology: Purdue University; West Lafayette, IN.
- Garden writer for Monterey Peninsula Landscape Gardeners Association (MPLGA) 1987-1992. Column: Pest management in the garden and landscape.
- Chairperson: Lafayette Orchid Society 1998-1999.
- Vice-President: Central Illinois Orchid Society 2000-2006.
- Faculty Advisor: Illini Orchid Club 2002-2006.
- Co-organizer: Kansas State University; Department of Entomology, Research-Extension Updates. November 22-23, 2010; Manhattan, KS.
- “Bugs”: Stonehouse-pre-school class; Kansas State University, Manhattan, KS. April 6, 2010.
- Insect Zoo volunteer guide for Randolph County School sixth graders (~15 children). May 5, 2010. Kansas State University; Department of Entomology Insect Zoo, Manhattan, KS.
- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners. July 6, 2010. Topeka, KS.
- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners. July 5, 2011. Topeka, KS.
- Poster judge for undergraduate poster competition. American Society of Horticultural Science Annual Conference; September 25, 2011. Waikoloa, HI.
- Grower solutions. Ohio Florists’ Association Short Course; July 10-11, 2011. Columbus, OH.
- What are insects? Children’s educational day; Kansas State University Stonehouse. April 6, 2011. Manhattan, KS.

- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners; July 5, 2012. Topeka, KS.
- MeisterPro Board of Review for 2013 *Crop Protection Handbook* ; MeisterMedia Worldwide, Willoughby, OH.
- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners; July 8, 2013. Topeka, KS.
- Insects in the movies. Kansas State University Open House: Department of Entomology Display; April 20, 2013. Manhattan, KS.
- MeisterPro Board of Review for 2014 *Crop Protection Handbook*; MeisterMedia Worldwide, Willoughby, OH.
- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners; July 7, 2014. Topeka, KS.
- Cloyd, R. A. 2014. Climate change reconsidered II: biological impacts. Summary for Policymakers: Nongovernmental International Panel on Climate Change; The Heartland Institute, Chicago, IL (Served as author and reviewer).
- Peer review panel member: served as a panelist for the USDA-NIFA Plant Production and Protection SBIR Phase II Grant Program; May 20-23, 2014. FY 2014 USDA AFRI NIFA Fellowship Grant Program; Washington, D.C. (reviewed five grant proposals for funding).
- Reviewed grant proposal entitled “Biological control of thrips and whitefly in greenhouse roses” (file 12656) for the Technology Foundation STW; Dutch funding agency in the Netherlands.
- Reviewed grant proposal entitled ‘Insecticide resistance management of the western flower thrips’ for the American Floral Endowment; Alexandria, VA.
- Insects in the movies: “big-bug” 1950’s science fiction movies. Kansas State University Open House: Department of Entomology Display; April 5, 2014. Manhattan, KS.
- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners; July 6, 2015. Topeka, KS.
- Insects in the movies: “big-bug” 1950’s science fiction movies. Kansas State University Open House: Department of Entomology Display; April 11, 2015. Manhattan, KS. Approximately 623 attendees.
- Assisted Lea Westervelt (Greenhouse Manager: Department of Horticulture and Natural Resources; Kansas State University, Manhattan, KS) in revitalizing orchid collection by helping repot the existing orchids. March 9 and April 20, 2016.
- Provided insect educational display for Horticultural Sciences Day (February 12, 2016. Johnson County Community College; Overland Park, KS).
- Assisted Dr. Kimberly Williams (Professor: Department of Horticulture and Natural Resources; Kansas State University, Manhattan, KS) in providing students associated with interiorscape class (HORT 377: Interior Plantscaping) information, (in both lecture and laboratory format, on how to identify and manage insect and mite pests. February 3, 2016.
- Provided educational training for both the Horticulture and Popenoe Entomology Club at the Willow Lake Student Farm (Manhattan, KS) regarding plant protection of outdoor grown vegetable crops. October 8, 2016. There were a total of 8 individuals present.
- Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardeners; July 11, 2016. Topeka, KS.
- Insects in the movies: “big-bug” 1950’s science fiction movies Kansas State University Open House: Department of Entomology Display; April 16, 2016. Manhattan, KS. Approximately 547 attendees.
- Provided educational training for both the Horticulture and Popenoe Entomology Club at the Willow Lake Student Farm (Manhattan, KS) regarding plant protection of outdoor grown vegetable crops; July 22, 2017. There were a total of 10 individuals present.
- Judge for 10-minute Student Paper Competition: P-IE, Biological Control, Parasitoids. Entomological Society of America Annual Meeting; November 6, 2017. Denver, CO.



Undergraduate mentor for Mary Conner (Junior; Horticulture Major). Fall Semester 2017. Research Project: Predation by insidious flower bug, *Orius insidiosus*, adults on western flower thrips, *Frankliniella occidentalis*, adults under laboratory and greenhouse conditions. Presented poster at Entomology Department: College of Agriculture, Undergraduate Research Symposium (December 7, 2017. K-State Student Union; Kansas State University, Manhattan, KS).

Insects in the movies: “big-bug” 1950’s science fiction movies. Kansas State University Open House: Department of Entomology Display; April 1, 2017. Manhattan, KS. Approximately 587 attendees.

Undergraduate mentor for Gergely Motolai (Undergraduate Student—Junior; Horticulture Major). Fall Semester 2018. Research Project: Effect of *Orius insidiosus* (Hemiptera: Anthocoridae) and spinosad (Conserve®) on western flower thrips, *Frankliniella occidentalis* (Thysanoptera: Thripidae), populations in transvaal daisy flowers. Presented poster at 3<sup>rd</sup> Annual Department of Entomology Undergraduate Research Experience Symposium (December 6, 2018. K-State Student Union; Kansas State University, Manhattan, KS).

Insects in the movies: “big-bug” 1950’s science fiction movies (April 7, 2018. Kansas State University Open House, Department of Entomology Display; Manhattan, KS). Approximately 135 attendees (the reduced attendance was due to Entomology not being on the punch cards and there were weather issues).

Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardener (June 25, 2018. Topeka, KS).

Blueville Nursery Ladybug Breakfast (May 12, 2018. Manhattan, KS). Dr. Cloyd gave a brief introductory presentation and then released purchased ladybugs into a greenhouse to educate children on ladybug activity.

Bug Station for September Stroll in K-State Gardens (September 6, 2019. Friends of the Kansas State University Gardens; Manhattan KS).

Insects in the movies: “big-bug” 1950’s science fiction movies (April 6, 2019. Kansas State University Open House: Department of Entomology Display; Manhattan, KS). Approximately 391 attendees.

Entomology expert for Sick Plant Clinic. Shawnee County Extension Master Gardener (June 24, 2019. Topeka, KS).

Blueville Nursery Ladybug Breakfast (May 11, 2019. Manhattan, KS). Dr. Cloyd gave a brief introductory presentation (Ladybug...ladybug fly away home) and then released purchased ladybugs into a greenhouse to educate children on ladybug activity.

## **7. Graduate Students (Completed Degrees)**

Meredith Blumthal (MS)

Ana Cabrera (MS)

Katharina Rothwangl (MS)

Theresa Meers (MS)

Erick Caamano (MS)

Paul Thomas Tiddens (MS)

Brian Hogendorp (MS)

Brian Hogendorp (PhD)

Heather Lash (MS)

Nanette Kalscheur (MS)

Wendy Johnson (PhD)

Amy Willmott (MS)

Erik Echegaray (PhD)

Jessica Kivett (MS)

Yinping Li (PhD)

**8. Graduate Students (Current)**

Devin Radosevish (MS): started in August 2018

Ashlee Skinner (MS): started in 2018 (co-advised with Dr. Cary Rivard in the Department of Horticulture and Natural Resources)

**9. International Student Interns or Visiting Scholars**

Eva Birken (Germany): August through October 2005.

Astrid Racancoj Racancoj Coyoy (Guatemala): January through April 2013 (Zamorano University; Honduras, Central America).

Ivan Grijalva (Ecuador): January through April 2014 (Zamorano University; Honduras, Central America).

**10. Undergraduate and Non-Undergraduate Research Personnel**

Joshua D. Gillespie (undergraduate technician)

Nicholas R. Timmons (undergraduate technician)

Jessica M. Goebel (undergraduate technician)

Nikki DePaola (undergraduate technician)

Amy Dickinson (research technician)

Amy Willmott (research technician)

Nathan Herrick (research associate)\*

Mark/Congxing Zhu (research assistant)

Kai Zhao (research assistant)\*

**Up-dated: January 1, 2020**