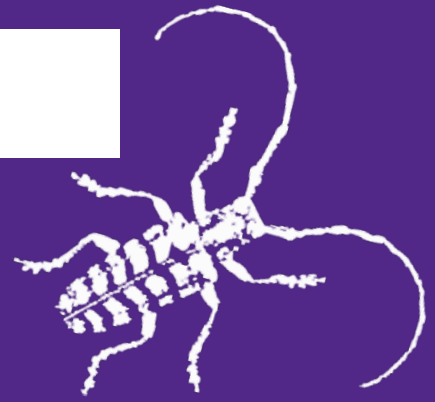


Kansas State University Extension Entomology Newsletter

For Agribusinesses, Applicators, Consultants, Extension Personnel & Homeowners

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Clover Mites Are Entering Homes!
Alfalfa Pests (alfalfa weevils, pea aphids, cowpea aphids)
Brown Wheat Mites
Extension Specialists
Bug Joke of the Week

Welcome to the 1st edition of the KSU Entomology Newsletter for 2022

Clover Mites Are Entering Homes!

We have received a number of inquiries regarding homes being invaded by populations of the clover mite, *Bryobia praetiosa*. Now is the time of year when clover mites enter homes, apartments, or commercial buildings, with extensive numbers crawling around and causing people to be somewhat concerned regarding how to deal with the problem.

Clover mites typically enter homes and buildings from a southwest exposure. Once inside, clover mites aggregate in large numbers in the corners of homes and buildings (Figure 1). Clover mites are primarily a nuisance mite pest because they do not bite humans. However, clover mites will leave a red stain when purposely or accidentally crushed.

Clover mite populations only consist of females as males have never been found. Adult clover mites are 1/30 of an inch long, red, with long, pink front legs (Figure 2) that are used to distinguish clover mites from other mite pests. Clover mites overwinter as eggs in protected locations and there is usually one generation per year in Kansas. Adults feed on over 200 plant types including: clover, grasses, ivy, honeysuckle, apple,



Figure 1. Clover mites aggregating in the corner of a building (Raymond Cloyd, KSU)

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freesia, and elm. Clover mite populations can be extensive in well-fertilized turfgrass located near foundations and their feeding will cause turfgrass to appear silvery or frosty.

The management of clover mites involves the following:

- 1) Remove turfgrass near building foundations.
- 2) Place an 18 to 36-inch wide band of an inorganic mulch around the foundation of homes and buildings.
- 3) Mow turfgrass as short as possible.
- 4) Avoid over-fertilizing turfgrass, especially with water-soluble, nitrogen-based fertilizers.
- 5) Remove weeds growing around the foundation.
- 6) Remove or limit the growth of ivy or other host plants growing around the foundation or walls.
- 7) Use plants near the foundation that are not typically attractive to clover mites, including: marigold, petunia, geranium, arborvitae, and/or yew.
- 8) Caulk or seal cracks or openings in the foundation or around window seals.

Clover mites inside homes or building can be vacuumed up, however, be sure to avoid crushing them. Clover mites can be captured on sticky tape (Figure 3) placed near openings such as window seals. Pesticides that contain the active ingredient permethrin can be applied around the perimeter of homes or buildings to kill clover mites, which will reduce the number entering homes and buildings. However, do not apply pesticides inside homes or buildings. If necessary, consult with a pest management professional for recommendations regarding perimeter treatments of pesticides with miticidal activity that will prevent clover mites from entering homes or buildings.



Figure 2. Adult clover

Photo by J. Kalisch
Dept of Entomology - UNL

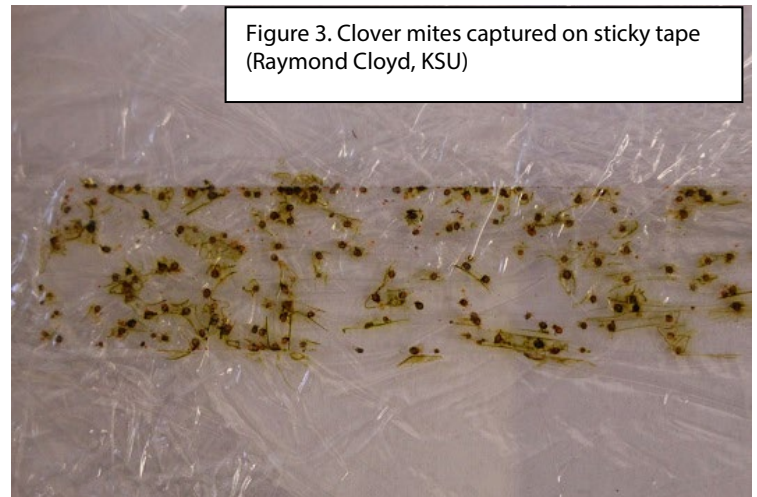


Figure 3. Clover mites captured on sticky tape
(Raymond Cloyd, KSU)

Raymond Cloyd, Horticultural Entomologist

HOME

Alfalfa Pests (alfalfa weevils, pea aphids, cowpea aphids)

Alfalfa weevils (see fig 1) have been hatching from eggs over about the last two weeks. However, they have not been developing very quickly, nor has the alfalfa, at least throughout north central Kansas. There will be more larvae. This is always a problem for producers, to treat early or not, especially with less foliage to accept the insecticide. If your treatment threshold is reached, irregardless of time it's probably prudent to make an insecticide application as soon as possible. Less foliage may mean better coverage and therefore kill. But, it also probably means less foliage to accept the spray and thus there may be a little less residual control. But this is always part of alfalfa weevil management.



Figure 1 Alfalfa weevil larvae and leaf damage

We also see conspicuous aphid populations all around the state—both pea (see fig 2) and cowpea (see fig 3). These aphids are causing concern, especially in areas where moisture is lacking. However, these aphids usually do not buildup to the density to actually reduce yield but more often provide a food source for many beneficials if left untreated.



Figure 2 Pea aphids



Figure 3 Cowpea aphids (received from Ed Beason)

Jeff Whitworth, Field Crop Entomology

Brown Wheat Mites

Reports of brown wheat mite outbreaks have come in from southwest and northwest Kansas in the last two weeks and the climate outlook for the region is likely to favor continued issues with this pest.

Brown wheat mite (Figure 1) is a sporadic pest of wheat in western Kansas but can also become problematic in eastern Kansas during dry years. Typically, continuous wheat faces a higher risk of damage from this pest and injury can be confused with drought stress. Mites damage individual cells in the leaf causing stippling while concentrated feeding at leaf tips causes plant tissue to dry out and die. Plants take on a scorched appearance and eventually wither (Figures 2 and 3).

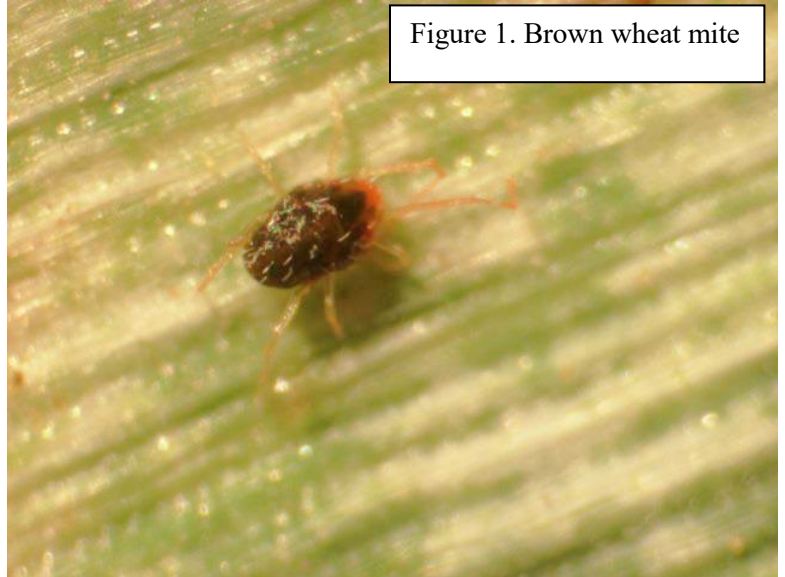


Figure 1. Brown wheat mite

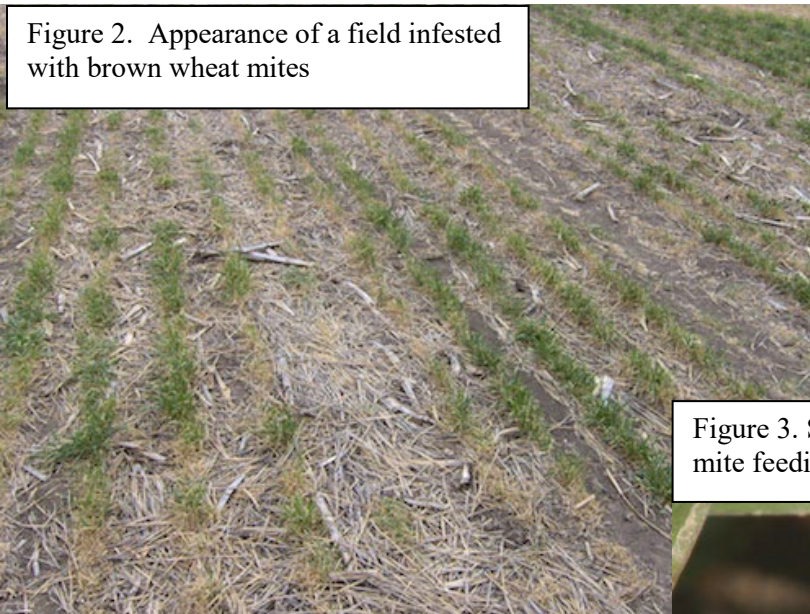


Figure 2. Appearance of a field infested with brown wheat mites



Figure 3. Stippling caused by brown wheat mite feeding.

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Brown wheat mites present in fields right now are from eggs that hatched last fall. They can easily survive cold temperatures and can produce multiple generations during the winter and an additional two to three generations in the spring. These mites are active during the day and peak activity is during the afternoon on warm days. They do not produce webbing like spider mites and can easily be observed moving rapidly on leaf surfaces when scouting a field. Their rapid movement and tendency to drop to the ground when disturbed can make assessing the level of infestation difficult.

The economic threshold is estimated to be several hundred mites per foot of row in early spring; stressed plants are most likely to succumb to damage. A solid rainfall is typically all that is needed to knock brown wheat mite populations below damaging levels, but that does not look to be in the forecast any time soon. Fields with noticeable populations of mites should be scouted for their eggs. Brown wheat mites lay two different types of eggs on soil clods and debris; red “winter”

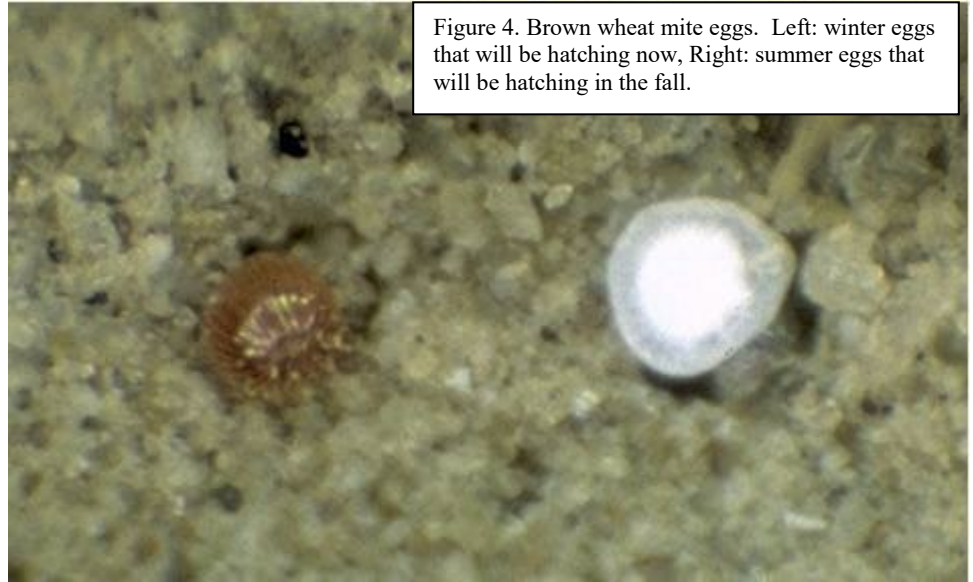


Figure 4. Brown wheat mite eggs. Left: winter eggs that will be hatching now, Right: summer eggs that will be hatching in the fall.

eggs and white “summer” eggs (Figure 4). The white eggs will remain dormant through the rest of the growing season and hatch in the fall. Red eggs will continue to hatch this spring and add to the current population. By late April, adults begin to lay the white, diapausing eggs. Once there are more white eggs in the field than red eggs, the population is naturally declining and treatment is not likely warranted.

For fields that require treatment, options for control of brown wheat mite are limited as there are no miticides registered for use in wheat and a popular option for control, chlorpyrifos, is no longer available. Dimethoate continues to provide good control of this mite, but there are some options for suppression of brown wheat mite populations when treatment is warranted and dimethoate is not an option (Table 1). As always, be sure to follow all directions on the labels for proper use of any chemical.

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Table 1. Products registered in Kansas for control or suppression of brown wheat mite. For more specific information relative to any insecticide, always refer to the actual label on the product.

Trade Name	Chemical Name	Mode of Action Class	Purpose	Rate
Dimethoate	<i>Dimethoate</i>	1B	Control	.3-.5 pint/A (.16-.25 lb a.i./A)
Besiege	<i>Lambda-cyhalothrin and chlorantraniliprole</i>	3A+28	Suppression	10 fl.oz/A
Proaxis	<i>Gamma-cyhalothrin</i>	3A	Suppression	3.84 fl.oz/A (.015 lb a.i./A)
Silencer	<i>Lambda-cyhalothrin</i>	3A	Suppression	3.84 fl.oz/A (.03 lb a.i./A)
Warrior II with Zeon Technology	<i>Lambda-cyhalothrin</i>	3A	Suppression	1.92 fl.oz/A (.03 lb a.i./A)

Anthony Zukoff—Entomology, Southwest Research and Extension Center

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	<p>Raymond Cloyd <i>Professor and Extension Specialist</i> rcloyd@ksu.edu</p>	<p>Insect and mite pest management in greenhouses, landscapes, turf grass, vegetables, fruits, Christmas trees, interior plantscapes, and organic crop production systems; impact of pesticides on pollinators and pollinator health; delusory parasitosis; pesticide mixtures; insect ecology; impact of pesticides on natural enemies; pesticide safety and use.</p>
	<p>Brian McCornack <i>Department Head, Professor</i> mccornac@ksu.edu</p>	<p>Field-crop pest management; integrated pest management tactics; sampling; invasive species; insect population dynamics; remote sensing and site-specific strategies; plant-insect interactions; web-based decision support systems.</p>
	<p>J.P. Michaud <i>Professor</i> jpmi@ksu.edu</p>	<p>Integrated pest management in field crops/IPM (Central Kansas): aphids, coccinellids, sorghum, sunflower, wheat; biological control; cultural control; insect behavior; insect ecology; life history.</p>
	<p>Frannie Miller <i>IPM Coordinator</i> fmiller@ksu.edu</p>	<p>Pesticide safety; Commercial Applicator certification; Private Applicator certification; integrated pest management in schools, consumer and urban environments, and crops.</p>
	<p>Cassandra Olds <i>Assistant Professor</i> colds@ksu.edu</p>	<p>Veterinary entomology; livestock entomology; vector biology; vector-borne pathogen transmission; immunological control of vector-borne pathogens; vector competence; developing novel arthropod management strategies.</p>
	<p>Robert (Jeff) Whitworth <i>Extension Specialist, Associate Professor</i> jwhitwor@ksu.edu</p>	<p>Field crop arthropod pest management/IPM (Eastern Kansas); household and structural arthropod pest management/IPM.</p>

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	<p>Anthony Zukoff <i>Extension Associate</i> azukoff@k-state.edu</p>	<p>Field crop (canola, corn, cotton, wheat, sorghum) pest management/IPM (Southwest Kansas); insect diagnostics, coordinates the collection and reporting of diagnostic inquires and identification of specimens.</p>
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Bug Joke of the Week

Q: What is totally funny and makes dogs itch?

A: The Flea Stooges!

Sharon Schroll

HOME

Sincerely,

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