

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel

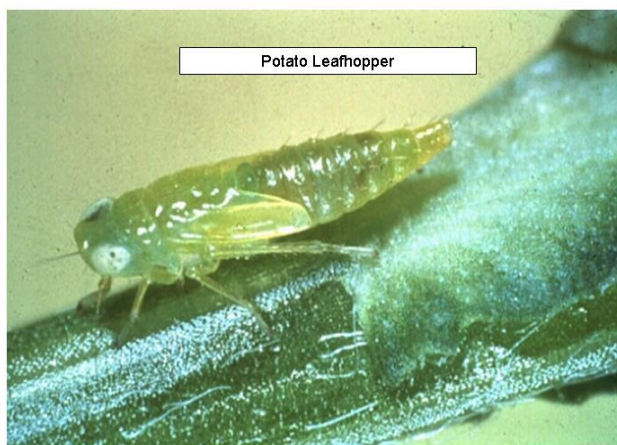


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Potato Leafhoppers in Alfalfa

Potato leafhoppers were detected in sweep samples from two alfalfa fields in North Central KS, this past week. All were adults, meaning they probably only recently migrated to KS. No nymphs were detected but will probably soon start hatching. These nymphs are very tiny when first emerged and therefore often go unnoticed. Potato leafhoppers also feed on soybeans but have not been a problem in KS yet on this crop, but alfalfa is perennially at risk. Alfalfa fields should be monitored for the next 6-8 weeks for increasing populations of these small, lime-green, wedge-shaped insects.



Jeff Whitworth and Holly Davis

Grasshoppers

Grasshopper nymphs are abundant in some areas and may justify control to protect crops. Field margins should be sprayed early in the season while grasshoppers are small when populations reach or exceed approximately 20 per square yard. Applying sprays before they move into the field greatly reduces the area that must be sprayed and the amount of insecticide needed

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Noncrop Area Treatments include:

Acephate (Orthene 75S, Address 75WSP)

0.25 lb. a.i./acre (0.33 lb. of 75 percent S or WSP) in 10 to 20 gallons by ground, or in 1 to 5 gallons by air. Use as a noncrop treatment on ditch banks, roadsides, and field borders. Do not feed or graze treated forage.

Carbaryl (Sevin 4F, 80S, XLR)

0.5 to 1.5 lb. a.i./acre. Noncropland (CRP acreage, set-aside acreage, wasteland, rights-of-way, hedgerows, ditchbanks, and roadsides) PHI is 14 days for grazing or harvest of forage for hay. (Label lists control of grasshoppers on multiple sites, which would include noncropland because that site is listed on the label.) Also labeled for use on rangeland at 0.5 to 1.5 a.i./acre where harvesting or grazing is allowed the same day as treatment.

Diflubenzuron (Dimilin 2L)

0.03125 lb. a.i./acre (2 fl. oz. per acre) to manage these insects in breeding areas before they move into crop land. Treat early instars (majority in the 2nd to 3rd nymphal stages). For use on field border, fence rows, roadsides, farmsteads, ditchbanks, wasteland, and CRP land.

Esfenvalerate (Asana)

0.015 to 0.03 lb. a.i./acre (2.9 to 5.8 fl.oz. per acre of Asana XL). This label is for noncrop use on land adjacent to tilled area to control migrating insects. Repeat as needed, but do not exceed 0.5 lb. a.i./acre per year. Do not feed the treated vegetation. Do not spray ditch banks or areas adjacent to water.

Gamma-cyhalothrin (Proaxis) Restricted Use

0.01 to 0.015 lb. a.i./acre (2.56 to 3.84 fl. oz./acre). Spray non-cropland adjacent to agricultural areas to control migratory insects that may threaten crops. Use highest labeled rates for dense/tall foliage, high insect populations and/or larger insects. Do not graze livestock in treated area. REI is 24 hr.

Lambda-cyhalothrin (numerous products)

0.02 to 0.03 lb. a.i./acre (2.56 to 3.84 fl.oz./acre). Spray non-cropland adjacent to agricultural areas to control migratory insects that may threaten crops. Use highest labeled rates for dense/tall foliage, high insect populations and/or larger insects. Do not graze livestock in treated area. REI is 24 hours.

Zeta-cypermethrin (Mustang MAX EC)

0.0175 to 0.025 lb. a.i./acre (2.8 to 4.0 fl. oz. per acre) Labeled for use on grass forage, fodder, pasture, and rangeland with a 12 hour REI and a 0-day harvest restriction on forage. Thus, this material may be used to treat these areas when grasshoppers are threatening to move from these areas into neighboring crop fields.

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More information on which chemicals are labeled for various crops can be found on our web site <http://www.entomology.ksu.edu/DesktopDefault.aspx?tabid=379> - by selecting a crop and then looking for information on grasshoppers on that crop.

Phil Sloderbeck

Onager – New Miticide for Corn

Gowan has announced a new supplemental label for Onager® for use on corn to control mites in the western United States. Onager contains a new active ingredient, Hexythiazox. It is said to control eggs and nymphs of both Banks and twospotted mites, prevent treated females from laying eggs, provide long lasting control (up to 60 days) and does not effect predatory mites and other beneficial insects. Since it does not kill adult mites it needs to be applied before mite populations reach damaging levels usually while corn is in the mid to late whorl stage. Use is limited to western Kansas (west of Rt. 281). Onager is labeled for use on Field Corn, Silage Corn, and Seed Corn. 45 Day PHI. V15 Crop Growth Stage Application Limit. For ground application the boom should be equipped with 16-inch drop nozzles with nozzles directed to spray up and under the canopy at 10 to 20 GPA. For aerial application the label recommends a minimum of 5 GPA and to use the higher rates when foliage is dense. Application rate is 10-24 oz. of product per acre. Additional product Information on Onager® can be found at: <http://www.gowanco.com/ProductInfo.aspx?pid=70> and the supplemental label for corn can be found at: <http://www.gowanco.com/Reference/Document.aspx?rid=624>

Phil Sloderbeck

2008 Kansas RUP Publication

After an absence in 2007, the 2008 Restricted Use Pesticides in Kansas (MF-710), publication has been revised. It is currently available at the K-State publications page at <http://www.oznet.ksu.edu/library/entml2/MF710.pdf> or can be ordered from the distribution office by calling 785-532-5830.

Time to watch for blister beetles in alfalfa.

Farmers getting ready to cut alfalfa should keep a sharp eye out for blister beetles that can potentially cause toxic contamination of their hay. Large swarms of three-striped blister have been observed in west-central Kansas indicating peak summer activity for this species. This is one of the most common blister beetles in Kansas and is distributed throughout the state. Dense aggregations may occur in patches of the field and these should be allowed to disperse naturally before mowing. It is important to avoid driving over, mowing or crushing large aggregations prior to, or during haying. For more information on blister beetles in alfalfa please refer to:

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<http://www.oznet.ksu.edu/library/entml2/MF959.PDF>



Photo credits:
3-striped – Steve Scott



Black – Bruce Martin



Gray – T. Beth Kinsey

J. P. Michaud

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Weekly Report from the Kansas State University Insect Diagnostic Laboratory:

The following samples were submitted to the Insect Diagnostician Laboratory from June 20th to June 26th.

- June 20 2008: Gray County – Twospotted spider mites on tree
- June 23 2008: Johnson County – Wood boring beetles coming out of firewood
- June 23 2008: Riley County – Grass spider
- June 23 2008: Lyon County – Gnats on deck
- June 23 2008: Lyon County – Adult leaf beetles on swiss chard
- June 24 2008: Ford County – Reduviid nymphs in grass
- June 24 2008: Sedgwick County – Collembolans around sump pump
- June 24 2008: Labette County – Merchant grain beetles in home
- June 25 2008: Logan County – Cricket droppings in home
- June 26 2008: Osborne County – Moth pupae found in lawn
- June 2 2008: Lyon County – Corn earworm larva

If there are any questions regarding these samples or about the identification of any arthropod please contact the Insect Diagnostician at (785) 532-4739 or GotBugs@ksu.edu.

Holly Davis

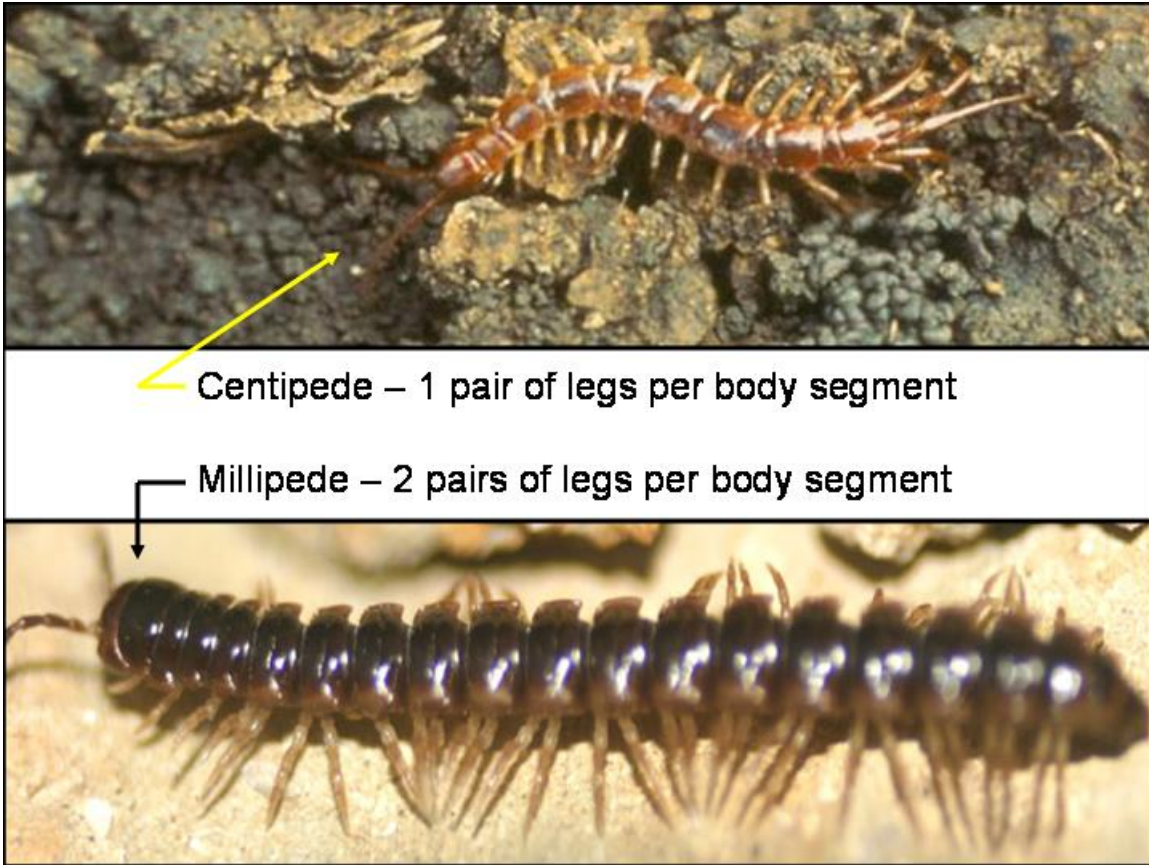
“SQUIRM!”

A 1976 horror film, “An avalanche of killer-worms...writhing across the land in a tidal wave of terror!”. Thankfully, our current avalanche of worms are not “killers”, but merely millipedes.

Millipedes are elongated wormlike arthropods. They can be differentiated from centipedes by virtue of the number of legs per body segment. Whereas centipedes have a single pair of body legs/segment, millipedes have 2 pairs.

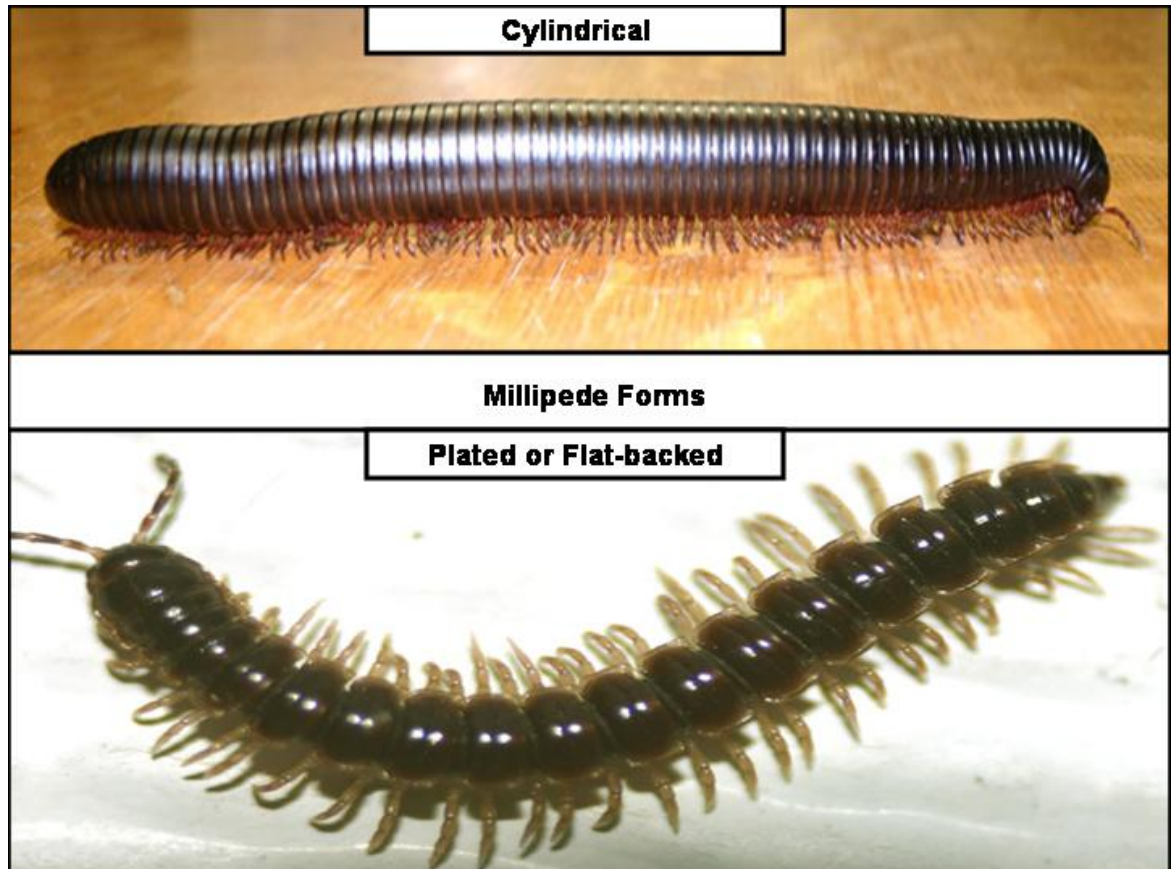
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(As an aside, actually what appears to be a single body segment in millipedes is, in fact, two fused segments, each with a pair of legs --- hence the 2 pairs of legs per body appearance)

There are 4 basic body forms of millipedes. The two most common are cylindrical and plated (or flat-backed). The cylindrical are sometimes referred to as “wireworms” (not to be confused with “true wireworms” – the larvae of click beetles), and when viewed from above, their legs are somewhat hidden due to their ventral position. The legs of flat-backed millipedes are more highly visible as they project outward from beneath the extended plate.



The life cycle of millipedes extends over a period of years. Depending of conditions, development from egg to adult may require 2 - 4 years, with adults living additional years. Thus over time, millipede populations build up (especially) in heavily wooded areas which satisfy their preference for shaded and moist environments where they primarily feed on decaying organic matter, notably leaf litter.

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For reasons unknown, whether under extremely dry or wet conditions, millipedes “march”. This is when people report “invasions of worms”. And although millipedes are harmless (they do not bite or sting), they may sometimes feed on tender garden crops. The most common complaint, however, is that their mere presence is disconcerting. They are mostly observed around daybreak when massing on sides of buildings, patios/decks, driveways and sidewalks and decorative rocks. Especially on hot sunny days, they rapidly disappear as they seek protective shelter/cover, only to re-emerge during the ensuing evening.



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Frustrations arise when attempting to control millipedes. Millipedes seek “hiding places” ---- any available crack or crevice in the soil, under bark mulch, under landscape stonework/gravel/plastic ground cover, leaf litter in and around homes (especially in country/wooded settings), up and down the bark of trees, etc. Elimination of these protected sites is impractical/impossible. Insecticides registered for use as perimeter treatments will eliminate those millipedes in the target area. However repeated applications will be required for the duration of millipede movements. Another nuisance factor: the dead millipedes will have to be swept up and disposed of. The best news is that millipede activities stop as suddenly as they began!

Spray for Bagworms NOW!

How often have you heard, “Time flies”? We are through the period of bagworm egg hatch, and have arrived at the time to spray for bagworm. Whereas, in most instances, normal to moderate bagworm populations (to this point in time) have not resulted in noticeable feeding damage, extremely high populations may have caused the need for immediate insecticide rescue treatments.

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Many insecticidal products are marketed for homeowners to use against bagworms. More important than the actual active ingredient (a.k.a. killing agent) in the purchased product, is **HOW THE PRODUCT IS USED!**

1. Timing ---- as stated earlier, now is the time to spray given that the entire period of egg hatch is over and larvae are still relatively small. From this point forward, they will rapidly increase in size and cause extreme feeding damage.
2. Read the product label to ensure the proper amount of insecticide is added to the water carrier.
3. Do not be stingy with treatments. Achieve thorough coverage. Too often, light “misty” applications contact/treat bagworms on the periphery of infested hosts. Although it requires more time and effort, thrust the sprayer wand deep into the foliage to deliver treatments to bagworms feeding there.
4. Treat all of the infested hosts ---- not just those which are most heavily infested. In situations where there is a single (or several) heavily infested tree(s)/bush(es), for certain, treat the lesser infested adjacent plantings. Inspect additional hosts and make a determination of their infestation level (if any) and withhold treatment if judged “not necessary”.

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Masked Chafer Flights

Since first observing “buzzing beetles” around outdoor lights the evening of June 11, and subsequently their attraction to blacklight traps the evening of June 14, “masked chafer” beetle activities have been minimal. Activities have dramatically increased this past week and (as past experience has shown) points towards a flight peak within a week to 10 days. This will fall within the rule-of-thumb Fourth of July time frame for flight peaks.



The larvae of “masked chafers” are the **annual white grubs** associated with turfgrass in Kansas. On average, eggs deposited by beetles hatch in a 10-14 days. Grub development is relatively rapid. By mid-to late September, 3rd instar larvae voraciously feed on root systems causing visible damage to turf.

In situations where “perfect stands of turf” are expected/desired, now through mid-July is the optimal time to apply preventative **systemic** insecticides. The active ingredients, imidacloprid and halofenozide have proven efficacy against annual white grubs as a nerve poison and as an insect growth regulator, respectively. For homeowners, the most readily available imidacloprid products are: Season Long Grub Control, GrubEX, Grub No +More, and Grub Beater. Complete Insect Killer is a combination of imidacloprid and beta-cyfluthrin. Halofenozide is the active ingredient contained in Kill-A-Grub.

Bob Bauernfeind

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Sincerely,

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