

KENTUCKY PEST NEWS

ENTOMOLOGY · PLANT PATHOLOGY · WEED SCIENCE

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FORAGE

CHECK ALFALFA FOR FALL PESTS

by Lee Townsend



Investigation of a recent alfalfa seeding that was developing bare spots turned up the black legume aphid, also called the cowpea aphid. It is the only black aphid found infesting the crop. Adults are usually shiny black while the nymphs are slate gray. In alfalfa, these aphids primarily feed on young terminal growth but can be found infesting leaves, blooms, and stems.

Damage symptoms can include yellowing, wilting, and dieback. This aphid injects a toxin into plants as it feeds that can stunt or kill plants. It also produces lots of liquid waste (honeydew) that supports sooty mold growth. It is easy to check for this insect by looking for colonies of the aphids at plant tips at scattered locations over a field.

Infestations occur when winged migrant aphids fly into fields and begin to deposit live young on suitable host plants. Aphid populations can build rapidly the fall and

again in the spring. The fall flight, as seen thru trap catches, showed winged forms active from mid-August thru early October of this year with a peak in early September.

No monitoring guidelines or economic thresholds have been developed for this aphid on alfalfa. However, Oklahoma State University recommendations base treatments on evident yellowing and stunting. On alfalfa less than 10 inches tall, 50 aphids/stem should be used as a threshold. In general control measures should be considered when the alfalfa is heavily infested with cowpea aphids and is not growing properly (stunted, yellowing, and sticky with sooty mold).

What if the aphids are present in very low numbers? Note that they are there. Survival can be good during mild winters so check in the spring for population levels as you begin to watch for alfalfa weevils.

The cowpea aphid is generally distributed across North America and has been reported in at least 28 states and three Canadian provinces. It has an extensive host range with a marked preference for legumes. Other known host plants are apple, carrot, cotton, cowpea, dandelion, dock, goldenrod, kidney bean, lambsquarters, lettuce, lima bean, pinto bean, peanut, pepperweed, pigweed, red clover, shepherds-purse, vetch, wheat, white sweet clover, and yellow sweet clover. The aphid lives throughout the year without producing sexual forms and they are always females ready to produce live offspring.

VEGETABLES

ROW COVERS FOR INSECT MANAGEMENT

by Ric Bessin and Tim Coolong

Vegetable growers use row covers for a variety reasons, notably for frost protection in the spring or fall. But row covers can also be used to delay or prevent insects for colonizing high value plants. They are a viable option for organic, small-acreage, and mixed-vegetable farms. Row covers serve as a mechanical barrier the exclude insects from reaching the plants. Row covers are used to exclude a wide variety of insect pests and, in some instances, the diseases they transmit from young plants.

There are several different types of fabric that can be used for row covering, but the material needs to be light, breathable, and durable. Many growers use what they can tobacco cloth (Remay) as it is economical, has the desired properties, and comes in wide rolls. Generally, row covers are put in place as soon as the crop is seeded or transplanted into the field. They are left in place over the crop until flowering or, in some instances, until after bloom. There are various configurations, with one or more rows being contained under a row cover, but row covers for insect management must be sealed along all of the edges to prevent insect entry. Pole, boards, even layflat irrigation hose filled with water can be used to hold down the edge of the row covers. In order for the technique to be effective, the row covers need to be completely sealed along all of the edges. Holes in the fabric should be repaired with tape when they appear.

Potential Problems

Wind can cause serious damage to row covers. Constant winds can work the edge of the fabric free from the weights that hold the side down and high winds can tear the fabric. Wind breaks can be used to slow the wind over the row cover and anchored straps can be used to hold the row covers in place and reduce buffeting by the winds.

Despite the barrier, on occasion, insect pests do get under the row cover. Under the row cover they are able to develop and reproduce in the absence of natural enemies. Temperatures under they row cover may also promote more rapid development of the insects. When pests such as aphids, spider mites, or whiteflies get under the row, they build to higher populations much faster than they would without the row cover. For this reason, it is important to regularly monitor of pests under the row cover and take action if necessary. It is very important to do this regularly as considerable damage can be done in a short period of time by large

pest populations. One possible action would be to remove the fabric to allow natural enemies of the pests to move onto the plants. Another tactic would be to introduce biological control agents into the system. Natural enemies for some pests can be purchased and released under the fabric. As a final alternative, the row covers could be pulled back to allow for an organic or conventional insecticide application, then carefully replaced.

Some crops require insects for pollination. For example the vining crops (cucurbits) are completely dependent on insects for pollination. Many growers will use row covers only until flowering, then they will remove the row covers. Some growers will open the ends of the rows when using low tunnels to an entry point for the pollinators, but the value of the row cover as a barrier is lost. An additional alternative would be to place a commercial bumble bee colony under the row cover to provide pollination. When using bumble bee colonies under the row cover, shade over the cardboard colony may be required to keep the colony from overheating. Colonies of bumble bees are expensive, so growers would need to at the cost versus potential return on the investment. Bumble bees would also need space between the top of the plants and the row cover, so a support or low tunnel system may be needed.

HOUSEHOLD

FIREWOOD PESTS

by Mike Potter

This is the season when many homeowners begin to burn firewood. Firewood is a source of warmth and comfort, but can also be a way for pests to enter homes. Most pests living in firewood pose no harm to people, furniture, or to the structure. Nonetheless, homeowners often become concerned when critters emerge from wood that is brought indoors, and crawl or fly about the house.

Several types of insects dwell within firewood. Termites, wood boring beetles, and carpenter ants often tunnel and feed within the logs, but upon emergence, usually will not infest structural wood or furniture indoors. Other kinds of pests hide or overwinter beneath the bark. Examples include centipedes, ground beetles, sowbugs, pillbugs, spiders, scorpions and wood cockroaches. Typically, they emerge within a few days or weeks of the wood being brought indoors. For the most part they are harmless other than by their presence.

Preventing Firewood Pests

Control of firewood pests is best accomplished by

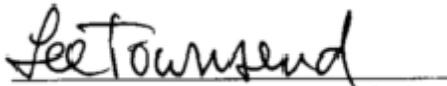
management of the firewood itself. Spraying/dousing the wood with insecticides is not necessary, effective nor recommended, and could produce harmful vapors when the wood is burned. A better plan is to:

1. *Store firewood outdoors, only bringing in what you plan to burn immediately or within a few hours.* Storing firewood for extended periods inside the home, garage or basement allows pests in the wood to emerge within the structure. Firewood stacked indoors can also become a harborage for rodents.

2. *Position the woodpile away from the house and off the ground.* Firewood stacked against the side of a building impedes ventilation and encourages moisture problems. Storing wood in this manner also provides a direct, hidden avenue for termites and carpenter ants into the building. Stacking firewood off the ground (e.g., on poles suspended between concrete blocks) increases air circulation and drying.

3. *Burn older wood first.* This shortens the time during which pest infestations can become established.

4. *Shake or knock logs together to dislodge any pests clinging to loose bark.* Don't forget to check bottoms of log carriers, since pests often crawl into these when the logs are transported into the home. The occasional insect emerging from firewood can easily be eliminated using a broom or a vacuum.


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