



# KENTUCKY PEST NEWS

ENTOMOLOGY • PLANT PATHOLOGY • AGRONOMY

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## ANNOUNCEMENT

- **1999 commercial applicator training schedule**  
**SHADE TREES & ORNAMENTALS**
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**HOUSEHOLD INVADERS**
- **Asian lady beetles**
- **Fruit flies**

## PESTICIDE NEWS AND VIEWS

- **IR-4 Program update**  
**DIAGNOSTIC LAB - HIGHLIGHTS**

## ANNOUNCEMENT

NAME: Wood Preservation Workshop  
CONTACT: Mike Potter  
PHONE NUMBER: 606-257-5955  
DATE: November 5, 1999 (8:20 a.m.-Noon)  
LOCATION: Hardin Co. Extension Office, 201  
Peterson Dr., Elizabethtown, 270-765-4121  
RECERTIFICATION: Yes  
INITIAL: Yes  
CATEGORY: 2b Agenda

NAME: Commercial Pesticide Applicator Training  
CONTACT: Monte Johnson  
PHONE NUMBER: 606-257-5955  
DATE: November 8, 1999  
LOCATION: Fayette Co. Extension Office, 1140 Red  
Mile Place, 606-257-5582  
RECERTIFICATION: Yes  
INITIAL: Yes  
CATEGORY: 2a, 3, 10,12 (8:30 a.m.-Noon); 1, 4, 10,  
12 (10:00 a.m.-2:10 p.m.); Testing at 2:15 p.m.

NAME: Commercial Pesticide Applicator Training  
CONTACT: Monte Johnson  
PHONE NUMBER: 606-257-5955  
DATE: November 11, 1999  
LOCATION: UK Research & Ed Center, Princeton,  
KY, 270-365-7541  
RECERTIFICATION: Yes  
INITIAL: Yes  
CATEGORY: 2a, 3, 10,12 (8:30 a.m.-Noon); 1, 4, 10,

12 (10:00 a.m.-2:10 p.m.); Testing at 2:15 p.m.

NAME: Commercial Pesticide Applicator Training  
CONTACT: Monte Johnson  
PHONE NUMBER: 606-257-5955  
DATE: November 22, 1999  
LOCATION: Robinson Experiment Station,  
Quicksand, KY, 606-666-2438  
RECERTIFICATION: Yes  
INITIAL: Yes  
CATEGORY: 2a, 3, 10,12 (8:30 a.m.-Noon); 1, 4, 10,  
12 (10:00 a.m.-2:10 p.m.); Testing at 2:15 p.m.

NAME: Commercial Pesticide Applicator Training  
CONTACT: Monte Johnson  
PHONE NUMBER: 606-257-5955  
DATE: December 15, 1999  
LOCATION: Morehead State Univ., 419 Reed Hall,  
Morehead, KY  
RECERTIFICATION: Yes  
INITIAL: Yes  
CATEGORY: 2a, 3, 10,12 (8:30 a.m.-Noon); 1, 4, 10,  
12 (10:00 a.m.-2:10 p.m.); Testing at 2:15 p.m.

## SHADE TREES AND ORNAMENTALS

### THYRONECTRIA CANKER OF HONEY LOCUST

by John Hartman

Cankers promoted by drought are a concern in the  
Kentucky nursery industry, especially on honey

locust. Thyronectria canker of honey locust is a major cause of decline of drought-stressed urban honey locusts and is also an important disease of newly planted trees, causing transplanting failure. Although honey locust is a Kentucky native, especially in the Outer Bluegrass region, the disease has little effect on trees in the forest.

Cause, symptoms and signs. Honey locust canker is caused by the fungus *Thyronectria austro-americana*. Cankers of the trunk and branches result in yellowing and death of associated foliage. Wood beneath the canker is stained a reddish color. Symptoms and signs are visible on the bark almost any time of year, but are most striking when the bark is wet. Oval-shaped dead areas found on affected trunks and branches are reddish-brown to yellowish-tan in color and dotted with dark fungal fruiting bodies called conidial stromata. These fruiting bodies, often appearing where lenticels were positioned, are easily seen without a hand lens and give the canker surface a roughened appearance. These fungal structures produce cream-colored to pinkish masses of conidia (spores) when cankers are wetted during rainy periods. Eventually, conidial stromata give way to fungal fruiting structures called perithecia which are easily recognized by their yellowish fruiting bodies with black tips, visible with a hand lens.

Disease spread. The spores exuded by the canker fungus are splashed by raindrops, moved on pruning tools, or possibly carried by insects to infection sites. The fungus infects pruning wounds that are less than three weeks old and possibly bark tissue that is scalded by the sun. Cankers then spread internally, sometimes girdling and killing the branch or trunk.

Disease management. Proper tree maintenance practices are most useful in managing honey locust *Thyronectria* canker.

- Handle trees with care at transplanting: provide plenty of roots when digging trees for transplanting, avoid wounds to trunk and branches, and avoid drought stress resulting from inadequate follow-up watering.
- When pruning, use recommended pruning techniques (natural target pruning) that favor rapid closing of the wounds. When dealing with diseased trees, be sure that pruning tools are disinfested with Lysol or bleach between cuts to reduce spread of the fungus. When pruning is completed, rinse tools in clean water to avoid corrosion or damage.

- Provide good growing conditions for honey locust with mulching and watering. With good care and improved growth, honey locust trees can restrict canker growth and begin to shrink the area of dead bark.
- When we inoculated honey locust cultivars here in Kentucky some years ago, we showed that *Thyronectria* cankers of 'Skyline' and 'True-Shade' honey locusts were significantly smaller than those of 'Sunburst'. 'Shademaster', 'Imperial', and 'Rubylace' cultivars were intermediate in their reaction to the disease.

## HOUSEHOLD INVADERS

### ASIAN LADY BEETLE FLIGHT DUE SOON By Lee Townsend, Ric Bessin and Mike Potter

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Asian lady beetles were not released in Kentucky by the University of Kentucky or any state agency. The insects, not native to the Commonwealth, have arrived here as a consequence of natural dispersal. See ENT 64, Asian lady beetle: Infestation of structures, for more information.

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A sunny, cloudless afternoon in late October is usually the first time lady beetle flight to overwintering sites begins. The hump-backed orange and black beetles are attracted to buildings or rock outcroppings in search of protected places to overwinter. In Kentucky, movement to buildings generally begins in late October and continues through mid-November.

While the beetles tend to be more attracted to lighter colored buildings, illumination or brightness appears to be an even stronger attractant than color. For this reason, beetles tend to initially congregate on the sunnier (southwest) side of most buildings. Homes or buildings that are not brightly illuminated by sun, especially if shaded on the southwest side, are less likely to attract lady beetles.

Because the Asian lady beetle is a tree-dwelling insect, homes and buildings in forested areas are especially prone to infestation. Suburban and landscaped industrial settings adjacent to wooded areas have also had large lady beetle aggregations.

Once the beetles land on the sunny side of the building, they attempt to locate cracks and other dark openings for hibernation sites. These locations

may ultimately be on any side of the structure. Common overwintering sites include cracks and crevices around window and door frames, porches, garages and outbuildings, beneath exterior siding and roof shingles, and within wall voids, attics, and soffits. Structures in poor repair or with many cracks and openings are especially vulnerable to problems.

The easiest way to remove ladybugs, once they are indoors, is with a vacuum cleaner. If you wish to subsequently release beetles outside place a handkerchief between the vacuum hose and the dust collection bag to act as a trap. A broom can also be used to remove beetles indoors, but is more likely to cause staining. (The orange-colored fluid that the beetles secrete when picked up or disturbed is harmless, but will stain walls and other surfaces.)

While sealing openings is the more permanent way to deny beetle entry, comprehensive pest proofing is time-consuming and sometimes impractical. There are often too many cracks under and around eaves, siding, vents, etc., where beetles can potentially enter a home. On multi-story buildings, sealing becomes still more difficult.

Consider applying an exterior (barrier) insecticide treatment. While sealing is the more permanent way to exclude pests originating from outdoors, comprehensive pest-proofing is labor-intensive and sometimes impractical. For clients requiring an alternative, pest proofing can be supplemented by an exterior treatment with an insecticide. Homeowners will get the most for their efforts by applying longer-lasting liquid formulations containing synthetic pyrethroids e.g., Spectracide Bug Stop (tralomethrin), Ortho Home Defense System (bifenthrin) or microencapsulated, slow-release Dursban, sold at hardware/lawn and garden shops.

Apply with a pump up sprayer, hose end sprayer, etc., treating at the base of all exterior doors, garage and crawl space entrances, around foundation vents and utility openings, and up underneath siding. It may also be useful to treat around the outside perimeter of the foundation in a 2 to 6-foot-wide band along the ground, and 2-3 feet up the foundation wall. The key is to initiate such treatments before the beetles enter buildings. Once they are indoors (i.e., winter/early-spring), such treatments are ineffective.

Clients who choose not to tackle these activities may wish to hire a professional pest control firm.

PCO's have other control options, such as, Demand CS, Tempo, Demon, Saga, Commodore, Talstar, and Suspend.

## **FALL'S BOUNTY BRINGS FRUIT FLIES** **by Mike Potter**

Fruit flies can be a problem year round, but are especially common this time of year because they are attracted to ripened or fermenting fruits and vegetables.

Fruit flies are common in homes, restaurants, supermarkets and wherever else food is allowed to rot and ferment. Adults are about 1/8 inch long and usually have red eyes. The front portion of the body is tan and the rear portion is black. Fruit flies lay their eggs near the surface of fermenting foods or other moist, organic materials.

Fruit flies are especially attracted to ripened fruits and vegetables in the kitchen. They also will breed in drains, garbage disposals, empty bottles and cans, trash containers, mops and cleaning rags. All that is needed for development is a moist film of fermenting material. Infestations can originate from over-ripened fruits or vegetables that were previously infested and brought into the home. The adults can also fly in from outside through inadequately screened windows and doors.

The best way to avoid problems with fruit flies is to eliminate sources of attraction. Produce that has ripened should be eaten, discarded or refrigerated. Cracked or damaged portions of fruits and vegetables should be cut away and discarded in the event that eggs or larvae are present in the wounded area. A single rotting potato or onion forgotten at the back of a closet, or fruit juice spillage under a refrigerator can breed thousands of fruit flies. So can a recycling bin in the basement that is never emptied or cleaned.

People who process their own fruits and vegetables, or make wine, cider or beer should ensure that the containers are well sealed; otherwise, fruit flies will lay their eggs under the lid and the tiny larvae will enter the container upon hatching. Windows and doors should be equipped with tight-fitting (16 mesh) screens to help prevent adult fruit flies from entering from outdoors.

Once a structure is infested with fruit flies, all potential breeding areas must be located and eliminated. Unless the breeding sites are removed

or cleaned, the problem will continue no matter how often insecticides are applied to control the adults. Finding the source(s) of attraction and breeding can be very challenging, and will require persistence on the part of the client -- guided by your suggestions as to where these areas might be. Potential breeding sites that are inaccessible (e.g., garbage disposals and drains) can be inspected by taping a clear plastic food storage bag over the opening overnight. If flies are breeding in these areas, the adults will emerge and be caught in the bag.

After the source of attraction/breeding is eliminated, a pyrethrum-based, aerosol insecticide may be used to kill any remaining adult flies in the area. A better approach, though, is to construct a trap by placing a paper funnel (rolled from a sheet of notebook paper) into a jar which is then baited with a few ounces of cider vinegar or a slice of banana. This simple but effective trap will soon catch any remaining adults. Faster results can be achieved by installing additional traps. Since more fruit flies will be caught in traps closest to the breeding source, the technique can also help pinpoint the source of the problem. Adult fruit flies caught in traps can be killed or released outdoors.

## **PESTICIDE NEWS AND VIEWS**

### **IR-4 PROGRAM UPDATE**

**By William Nesmith**

As the costs of developing pest controls and their registration have increased markedly in recent years, the pesticide registrants have concentrated their investments in crops that provide more favorable economic returns in order to justify their expenditures. Corn, soybeans, cotton, and wheat, for example, are the major crops with large acreage and, therefore, have been the focus of registrants' efforts and expenditures. As a result, fewer and fewer pesticides are being made available for use on the other 400 or so crops, called "minor crops", which include fruits, vegetables, herbs, ornamentals, sunflowers, minor grains, and others.

The IR-4 Program (also known as NRSP-4) is a national agricultural program (USDA/CSREES) with the principle aim of clearing pest control agents for minor uses. In general, a minor-use pesticide is one in which the costs of development and registration of the use would result in uneconomical returns to the owner of the control

agents. Although this program has operated since 1963, it has greatly increased its efforts following the passage of the Food Quality Protection Act (FQPA) in 1996 and the use of the "risk cup" assessment approach. The minor crop uses of pesticides generate a disproportionately greater share of the risk when compared to the major crops, so minor uses are being dropped for many crops and not seriously considered for others.

To help with this shortfall of pesticide needs, the IR-4 Program is concentrating its efforts and priorities on the registration in minor crops of reduced-risk pest control strategies, including the following approaches:

1. Registration of new reduced risk pesticides on minor crops rather than older more risky pesticides.
2. Registration of new reduced risk, use patterns with older pesticide registrations, rather than renewal of the old use pattern.
3. Registration of pesticides that are considered essential to integrated pest management (IPM) systems.
4. Registration of biologically-based pest control products.

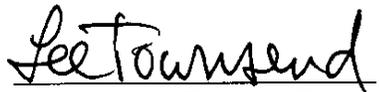
I serve as Kentucky's Agricultural Experiment Station Liaison Representative to this program. Please contact me if you are aware of minor-use pesticide needs in Kentucky, so they can be properly evaluated and submitted to this national program where warranted and appropriate.

### **DIAGNOSTIC LAB - HIGHLIGHTS** **by Julie Beale**

Recently we have seen several cases of root rot caused by *Pythium* and *Rhizoctonia*; samples have included root rot of poinsettia and Ficus, and root and crown rot of impatiens. In addition, we have seen root knot nematode on viburnum, *Botrytis* blight on pansy, tip blight on pine, cedar-apple rust (old foliar lesions) on apple and pox (*Streptomyces*) on sweet potato.

We have also had a number of mushrooms submitted for identification and expect many agents are getting questions at this time of year about mushroom hunting. Although collecting

mushrooms is an enjoyable fall activity for many of your clients, identifying mushrooms can be difficult and eating wild mushrooms potentially very dangerous. Samples sent to the lab are often inadequate because the mushrooms have deteriorated or have been broken off at the soil line instead of dug. We do not recommend eating wild mushrooms unless each mushroom has been identified by someone with specific training in this area. Also remind your clients that identification of one mushroom does not mean that others found close by are the same species. Collecting for the camera rather than the dinner table may be a safer way to enjoy the great outdoors.

  
Lee Townsend, Extension Entom

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