

“WHAT’S HAPPENING?”
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IMPORTED FIRE ANTS IN FRUIT AND VEGETABLES

by Frank Hale

Imported fire ants are definitely on the move in Tennessee. Mild winter temperatures in Tennessee have allowed these pests to greatly expand their range. They can sting in mass and some people are allergic to the sting. Workers or customers need to be protected on the farm from imported fire ants. Remember, most people have not been around imported fire ants and may not understand the potential danger. It is the responsibility of the landowner to control these pests and to provide a safe environment for both workers and customers.

The use of insecticide baits is one of the preferred methods of controlling these pests. There are a number of baits that can be used. Some are for use in residential areas, some can be used where animals graze and some can even be used in fruit and vegetable plantings. Just be sure that you read the insecticide bait label so that you pick a product that is labeled for use on the intended crop or site.

Methoprene is an insect growth regulator and it is the active ingredient of Extinguish Professional Fire Ant Bait. It is labeled for many outdoor site usages including cropland. I take this to mean that you can use it on any cropland. It can be applied as an individual mound treatment, a broadcast treatment, or as a hopper blend with another product. Note that when blending products, the more restrictive label will apply. Extinguish can also be used in refillable bait stations that would be placed along the perimeter of a structure or fence row every 15-30 linear feet. Affix a sticker to bait stations indicating the contents. In areas of heavy infestation, repeat applications may be necessary 10 to 12 weeks following the initial application.

Esteem Ant Bait utilizes the insect growth regulator active ingredient, pyriproxyfen. The worker ants take the bait back to the colony and feed it to both the ant queen and the immature ants. This causes degeneration of the reproductive organs of the queen so that she can not reproduce and the immature ants do not mature and become adults. The existing worker ants age and die. Within 3 to 4 weeks there is substantial colony mortality and within 8 weeks the majority of the colony population has been eliminated. It is labeled for use on brassica leafy vegetables, bushberries (blueberry, currant, elderberry, gooseberry, huckleberry, Juneberry, Lignonberry, salal), cucurbits, figs, fruiting vegetables, grape, legume vegetables (except soybean), onion (dry bulb only), pome fruits, strawberry, stone fruits, tree nuts, and other listed crops. Do not apply within 24 hours of harvest.

Esteem Ant Bait should be applied in the early spring or summer at the first sign of ant activity. In general, fire ant baits should not be applied when the grass or soil is wet. It should be put out when the ants are actively foraging, usually when the soil temperature is above 60°F. Also, avoid application if rain is expected within 4 to 6 hours and do not water the treated area within 24 hours after application. A second application may be advisable after 12 to 16 weeks in areas of heavy infestations, or when a reinfestation occurs.

Clinch Ant Bait has abamectin as the active ingredient. It is only labeled for use in potatoes and a few other crops or sites. Apply when soil temperatures are greater than 60°F. When reinfestation occurs or when large mounds remain active, retreatments may be desirable after 3 to 4 months.

AMMONIUM NITRATE ACT APPROVED

by Darrell Hensley

The U.S. Senate has just approved the "Secure Handling of Ammonium Nitrate Act of 2007." The bill was included as an amendment to the Department of Homeland Security (DHS) appropriations bill, which was approved by the Senate in July of 2007. The ammonium nitrate legislation was sponsored by Senate Homeland Security Committee State, Local and Private Sector Preparedness and Integration Subcommittee Chairman Sen. Mark Pryor (D-Ark). With this legislation in place, ammonium nitrate will be preserved for its intended purpose by America's farmers. The bill would require DHS to create a regulatory system to help keep ammonium nitrate out of the hands of those with criminal intent.

SPINETORAM INSECTICIDE RECEIVES FIRST GLOBAL REGISTRATION

by Darrell Hensley

Dow AgroSciences has received the first global registration of spinetoram, a new spinosyn insecticide compound. The compound, which will be sold under the brand name Delegate™ WG in the pome fruit market segment, has achieved registration in New Zealand. The molecule was accepted for expedited review under the U.S. EPA Reduced-Risk Pesticide Program in 2006, with registration of products containing this new active ingredient anticipated in the third quarter of 2007 in the United States and Canada. Delegate WG should allow growers to protect key high value crops with a standard of performance and excellent environmental characteristics, such as lower use rates and reduced environmental persistence. In earlier research trials, Delegate WG has shown excellent broad spectrum control of significant pests for the tree fruit and tree nut market segments, particularly codling moth. In addition, the product provides pome fruit growers with another mode of action to be used in control of codling moth and other internal feeding lepidoptera.

FIELD CROP UPDATE

by Russ Patrick

Corn

Harvest has been going for sometime now. For those who haven't started filling their bins, remember to clean them out and spray with Tempo for a residual effect against invaders in the bins. Starting with "just" a clean bin is usually an invitation for infestations, like those cause by stored grain insects that can cause considerable damage to stored grain, like those pictured below. The red flour beetle is one of the most difficult ones to control due to its ability to withstand several technologies. You can use Actellic 5E on the grain, although it costs approximately 17 cents per bushel to use, I can say without doubt it is one of the best products for protection of stored corn. . I wouldn't leave home without it.

PLANT & PEST DIAGNOSTIC HIGHLIGHTS

by Bruce Kauffman

We received 191 samples from July 7 through August 6, 2007 including 138 samples via the UT Diagnostic Web Site.

FRUIT and VEGETABLES :

Blossom drop due to high temperatures and improper nitrogen levels, fruit catfacing due to pruning and high nitrogen levels, fusarium wilt, unknown fruit virus, gold fleck fruit genetic disorder, bacterial leaf spot, tomato spotted wilt virus, southern blight, nitrogen deficiency, septoria leaf spot, fusarium crown rot and tree competition, no water maintenance plan, and metribuzin herbicide injury on tomato; drought stress, fusarium crown and root rot, improper nutritional levels, herbicide injury and genetic coloration of pumpkin; low pH and cedar apple leaf rust of apple; drought stress and improper planting density and light conditions for corn; deer feeding, mosaic virus, bacterial wilt, moisture stress, and nutritional deficiency due to low pH on watermelon; scab disease and stink bug damage on pecan; white genetic color patterns and tomato ring spot virus of squash; bacterial leaf spot of peach; viral infection of eggplant; April freeze damage and leaf rust on blueberry; plant sap exudation on okra stem and leaves.

TOBACCO and FIELD CROPS :

Black shank, frog-eye leaf spot and tomato spotted wilt virus on burley tobacco; chemical injury, drought stress, and brown spot disease of dark tobacco; phytophthora root and stem rot, drought stress, chemical injury, lightning damage, potassium deficiency, dicamba injury, lack of rhizobia root nodules, nutrient deficiencies and excesses and pH problems on soybeans; leaf miner, common blight, halo blight, ozone damage and spider mites on lima beans and butter peas.

INSECTS, CRUSTACEANS, and MITES :

Sitona root weevil and whitefringed beetle on soybeans; hemlock woolly adelgid and spruce spider mites on hemlock; sweet potato whiteflies on tomato; cyclamen mites on brugmansia; flatheaded appletree borer on live oak; aphids and southern red mites on holly; hawthorn lace bug on serviceberry; bark beetles and pine sawyers on eastern white pine; possible native ant species in pasture; cecropia moth caterpillar on rhododendron; solitary bee on squash blossoms; stink bug on burley tobacco; gouty oak gall wasps on red oak; lecanium scale on magnolia; snail or slug leaf damage to lily; lace bugs on ash; plant bug on yucca; azalea lace bug on azalea; rhododendron lace bug on rhododendron; Japanese beetle damage to Japanese maple and red maple; clear-winged borer damage to red maple; darkling beetles under bark of crape myrtle; Florida fern caterpillar on Boston fern; slugs around dog feces; cinara aphid on Fraser fir; small hive beetle in beehive; spider mites on tomato and eggplant.

In and around the home :

Centipedes; millipedes ; snails; ants; pill bugs; book lice (psocids); parasitoid wasp; lone star seed ticks; cicada killer wasps; gnats; beetle larva predator; humpbacked fly; moth fly; 100's of moths around porch light; bedbugs; chalcid wasp; aphid wasp; flour, meal, or cheese mite; springtails; warehouse beetles; grass-carrier wasp; jumping spider; masked chafers; bird mites; trapdoor spider.

ORNAMENTAL :

Shot hole borer, April freeze, melanconium canker, drought stress, and peachtree borer on cherry laurel; maple decline, weedeater damage, flatheaded appletree borer, sapsucker damage, girdling roots and squirrel damage on native maples; April freeze on Japanese maple; transplant shock and April freeze damage on boxwood; leaf distortion, xylosandrus ambrosia beetles and fusarium canker on crape myrtle;

borer, cankers, April freeze and drought stress of cherry; cytospora canker, drought stress and lichens on spruce; spider mites and over-fertilization of bonzai juniper; drought stress of juniper; root rot and botryosphaeria canker of rhododendron; April freeze damage, drought stress and brown canker of rose; fusarium canker and mycosphaerella leaf spot of tulip poplar; root disease due to over watering, nutritional deficiency, drought stress, and spider webbing on holly; April freeze damage on azaleas and mimosa; plant dieback due to winter injury on arborvitae; drought stress on dogwood, hibiscus, hydrangea, mountain laurel, coneflower, eastern white pine, and river birch; phytophthora root rot of petunias; root mortality due to drought stress and over watering on yew; septobasidium fungus and white peach scale on ash; girdling roots and improper planting depth on Bradford pear; twig cankers (*Pestalotiopsis* sp., *Cytospora* sp.) and drought stress on western red cedar; Dutch elm disease and red shouldered hickory borer in elm; fungal infection of wood mulch; fire blight of apple; cercospora leaf spot of Chinese privet; southern blight (*Sclerotium rolfsii*) of daisy and Black-eyed Susan; bird's nest fungus (*Cyathus* sp.) in hardwood mulch; phytophthora root rot on cleyera; fertilizer residue on elaeagnus; botryosphaeria canker of willow; citrus leaf damage with light intensity change; dog vomit slime mold on mulch; cercospora leaf blotch of white walnut; mushroom fungal parasitism; iron chlorosis of pin oak .

TURF :

Drought stress and takeall disease(*Gaeumannomyces* sp.)of new zoysiagrass; pythium root rot of mondograss and bentgrass; brown stripe disease (*Scoleototrichum*) on orchardgrass; slime mold (*Physarium cinereum*) on zoysiagrass; takeall disease of bermudagrass.

OTHER UT NEWSLETTERS WITH PEST MANAGEMENT INFORMATION

Fruit Pest News

<http://web.utk.edu/~extepp/fpn/fpn.htm>

Tennessee Crop and Pest Management Newsletter

http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/ipmnewsletters.htm

Tennessee Soybean Rust Hotline - 877-875-2326

USDA Soybean Rust Web Site <http://www.sbrusa.net>

This and other "What's Happening" issues can be found at

<http://eppserver.ag.utk.edu/Whats/whatshap.htm>

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

Disclaimer:

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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