

“WHAT’S HAPPENING?”

The University of Tennessee/Agricultural Extension Service

Entomology & Plant Pathology - EPP #60

27 July 2007

A PERFECT STORM (Dieback of Yew, Cryptomeria and assorted conifers)

by Alan Windham

This has been a trying year so far for the TN Green Industry. Winter months were drier than normal in most locations. The dry weather continued into Spring as evidenced by NOAA, and coincided with the Easter freeze which was unprecedented in recent history. This combination of a drought, warm weather, a freeze that was followed by severe drought, caused widespread damage.

While damage to evergreen trees and shrubs was not as visible at first, it is currently quite visible in many landscape locations throughout the state. In Middle Tennessee, dieback on yew is quite common. On a three mile drive along Old Hickory Blvd in South Nashville on Friday afternoon, almost every subdivision entrance had yew showing moderate to severe dieback. Several of the plantings that I stopped by to photograph had several things in common. First, there was no irrigation at most of the plantings showing severe damage. Second, there was no bark splitting on branches or main stems (except for one that had been hit by a motorist) as I have observed in other plant species. Third, the damage was randomly scattered throughout the canopy of most plants. Fourth, I could see no correlation between sheared or pruned and unpruned plants. Fifth, some of the plants were mulched, others were not. Sixth, no fungal fruiting bodies or wood boring insects were observed on any of the damaged plants.

Dieback on other plant species has been observed. Home owners, grounds managers and growers have noted dieback on arborvitae, cryptomeria and other species. I have noticed dieback on cryptomeria before, but have never associated a fungal pathogen with this problem. Dirr in his ‘Manual of Woody Landscape Plants’ notes this dieback as a problem of cryptomeria in the Southeast.

So what is to be done at this point? In some cases, plants are totaled and should be removed and replaced when conditions are more favorable for planting. In other cases, dead shoots can be removed and with a year or two of corrective pruning, things should be back to normal. If possible, plants need to be irrigated when dry conditions occur. Here’s hoping that the rest of 2007 and 2008 is more normal on the climatological front.

SOIL MOISTURE

by Darrell Hensley

Occasionally, individuals bring plants by the office and ask what is wrong. A few weeks earlier, someone brought by several plants so close to death I could hear them screaming for water. Well, I found a neat product available from <http://www.cyberguys.com> . It is a soil moisture reader which monitors conductivity of the soil in pots and planters. It will alert you when the moisture drops below a pre-set

optimal level. The neat part about this product, is it looks like a frog and croaks when the soil is dry. It has a light sensor included so it does not croak when it is dark. Doctor Frog is a unique tool sold for only \$4.95.

CLOMAZONE, HEXYTHIAZOX, LACTOFEN AND SULFOSATE

by Gene Burgess

EPA has posted the Final Work Plans for registration review of clomazone, hexythiazox, lactofen, and sulfosate. These plans are available through EPA's Registration Review Status Page, http://www.epa.gov/oppsrrd1/registration_review/reg_review_status.htm.

REGISTRATION REVIEW PROGRAM

by Gene Burgess

The Agency has begun to implement the new Registration Review program, and plans to review each registered pesticide every 15 years to determine whether it continues to meet the FIFRA standard for registration. Changes in science, public policy, and pesticide use practices will occur over time. The Registration Review program is intended to make sure that, as the ability to assess risk evolves and as policies and practices change, all registered pesticides continue to meet that statutory standard. The public phase of registration review begins when the initial docket is opened for each case. Information on this program is provided at: http://www.epa.gov/oppsrrd1/registration_review/

SCARAB BEETLES AND WHITE GRUBS

by Frank A. Hale

While Japanese beetles adult numbers have been down in many areas this year, other scarab beetles such as May beetles, the green June beetle and masked chafers have been relatively abundant. Japanese beetles and green June beetles are active during the daylight hours. The Japanese beetle is a major defoliator. It feeds on foliage between the veins giving the foliage a skeletonized look. It feeds on the foliage of more than 300 types of plants. It especially likes to skeletonize grape leaves. Japanese beetles along with corn rootworm adults can even clip the green silk of corn which can reduce kernel set and yield. Japanese beetles can also feed on ripening fruit such as blackberries, raspberries, and blueberries.

Green June beetles can be seen now flying low over turfgrass lawns and pastures. They are particularly attracted to grassy areas with high organic matter such as when compost is applied to turfgrass as an amendment or to cattle pastures with their own kind of natural organic fertilizer being deposited. Sometimes you can see a dark wasp with two yellow spots on the abdomen flying over this same turfgrass. These are *Scolia dubia*, an important parasitoid of the green June beetle larvae. Other scarab beetles such as May or June beetles and masked chafers fly at night and can often be seen around lights or on window screens. The May or June beetles feed on the foliage of trees such as elm and oak at night. This makes it difficult to identify the culprit when leaf feeding is seen but the beetles are not found on the foliage during daylight. The use of a late afternoon spray of Sevin or one of the labeled synthetic pyrethroid insecticides should suffice.

Now is the time when sampling for white grubs should be done. The beetles lay their eggs in the soil in turfgrass areas. While it has been very dry in most of the state, any recent rains will make the turf more attractive for egg laying by the scarab beetles and will allow for greater percent egg hatch. Now through October is usually one of the driest times of the year. The typical Tennessee backyard is not irrigated and many of the eggs laid will desiccate and not hatch. This generally results in low numbers of white grubs that do not require chemical control. Conversely, irrigation during the egg laying period increases egg and white grub survival and thus increases the possibility of needing chemical control for white grubs to prevent damage to turfgrass.

Sampling for white grubs allows us to determine the density of the population (how many white grubs per square foot). We can also determine what kind of white grubs are most prevalent since not all white grubs are created equal. Masked chafers do less feeding damage to live grass roots than a similarly sized Japanese beetle grub. This is because the masked chafers feed on more dead organic matter and thus damage fewer live roots. The tiny black turfgrass *ataenius* grubs are much smaller and it takes a population density of 30-60 grubs per square foot before chemical control is warranted. A list of these aesthetic thresholds is contained in the UT Extension publication Commercial Turfgrass Control, PB 1342 and also in the new Bermudagrass Athletic Field Management Calendar, PB 1632.

The type of white grub can be determined by looking at the underside of the tip of the abdomen called the raster. Green June beetles have a series of short brownish setae (hairs) in a pattern that look like a number "1" while May or June beetles have two parallel rows of setae like an eleven "11." Japanese beetles have a "v" shaped raster pattern and masked chafers have more evenly spaced setae lacking distinctive pattern. Images of these raster patterns are available on-line if you want to learn to identify them. You can also send some images through your local county Extension office via the distance diagnostics web site so I can help you with your identifications.

NEW TENNESSEE PESTICIDE REGISTRATIONS

by Gene Burgess

Insecticides:

Cyonara 9.7 (lambda-cyhalothrin) – structural and perimeter pest control (Control Solutions Inc.).

Transport (acetamiprid) – control of termites and household pest outdoors (FMC Corp).

Fly Buster Pro (methoprene) – insect growth regulator (Hudson Livestock).

Term-A-Rid (disodium octaborate tetrahydrate) – reduce the population of worker termites without wings feeding on mulch next to a structure.

Termite Killing Foam2 (prallethrin) – kills exposed drywood, dampwood & sub termites.

Flagship (thiamethoxam) – Control of insects on ornamentals in greenhouses (Syngenta).

Herbicides & Plant Growth Regulators:

Eject 7 (quincloric) – control of broadleaf and grass weeds (Advan LLC).

Ethephon 6 (ethephon) – used as a foliar spray to assist in overall defoliation (Arysta).

Lineage tm 4 (isopropylamine salt) – control of broadleaf weeds, annual and perennial grasses (Dupont).

Nature's Touch Ecosharp Weed & Grass Killer (acetic acid) – foliar weed control (Gardenway LLC).

Strada WG (orthosulfamuron) – control of weeds in rice (Isagro Spa).

Permaguard (oxyfluorfen) – broad-spectrum preemergence control of weeds (Prokoz Inc).

Prefix CP (s-metolachlor) – weed control in soybeans (Syngenta).

Fungicides, Rodenticides & Other Pesticides:

Metastar 2E Ag (metalaxyl) – control of diseases caused by oomycete (Arysta).

T-Methyl EAG 4.5F (thiophanate-methyl) – fungicide used to broaden control (Etigra).

Segway (cyazofamid) – control of pythium and downy mildew on turf grasses (FMC Corp).

Champ WG (copper hydroxide) – control algae in turfgrass (Nufarm)

Toledo (tebuconazole) – control of diseases on grasses grown for seed and peanuts (Rotam N. America Inc)

Plotter (metsulfuron-methyl) – for use on wheat, barley, fallow, pastures and range (Rotam N America Inc).

Concert (propiconazole) – fungicide for control of plant diseases (Syngenta)

Flanker WDG (aluminum tris) – control of disease caused by pythium and phytophthora (Tessenderlo Kerley).

Linebacker WDG (aluminum tris) – control avocado root rot (Tessenderlo Kerley).

NEW CLOTHIANIDIN AGREEMENT

by Gene Burgess

Arysta LifeScience and Valent U.S.A. Corporation have reached a supply and marketing agreement in the U.S.A. for the active ingredient, clothianidin.

Under the terms of the agreement, Valent has rights to the brand names Arena, Clutch, Celero and Belay. Valent will enter the crop and ornamental markets with clothianidin in September and the professional turf market by the end of November, 2007.

Arysta will continue to market clothianidin in premixtures for use in the granule and sprayable segments within the professional turf market under the brand name Aloft. Registration is anticipated before the end of November 2007.

TENNESSEE 24C REGISTRATION

by Gene Burgess

The Department of Agriculture, State of Tennessee approved a package for a Section 24C, Special Local Need Registration of Provado 1.6 Flowable Insecticide (imidacloprid). This is a SLN to allow chemigation as a method of application to watercress to control aphids and flea beetles. This is for commercial production only. Applications must not be made to native cress growing in streams or other bodies of water. This SLN label is effective from 7-23-07 through July 20, 2012.

TOBACCO IPM REPORT

by Gene Burgess

Jessica Bolinger, Hamblen Co.

Field 1:

- Flea beetles are continuing to build up and very close to threshold levels.
- Grasshoppers are increasing along the borders.

Field 2:

- Flea beetles and aphids are substantially increasing in numbers, but less than threshold.
- Fifteen percent of the plants were either stunted or dead due to drought.
- Morning glories are making a come back.

Field 3:

- Low numbers of flea beetles present.
- No aphids present.
- Grasshopper populations are surrounding the field.
- The biggest problem was budworms, in which there was a 40% infestation of plants (beyond threshold level).
- A light stand of morning glories existed.
- A 10-20% loss due to sunscald or drought.

Brittnee Morgan, Robertson Co.

Demonstration Field:

- Plots were treated with Admire, Platinum and Orthene in the transplant water or tray drenched. Control was still effective.
- A budworm and hornworm was found in the Platinum test plot.

Scouted Field:

- Tomato spotted wilt virus, brown spot and target spot were found.
- Insects were not a problem.
- A stink bug, budworm and adult hornworm were found.
- Morning glories and other broad leaves were found.

Ryan Hensley, Loudon Co.

- Insects were under control.
- Sporadic black shank was found.
- Broadleaf plants and grasses were more of a problem.

Sarah Keenan, Williamson Co.

- Some plants were infested with tobacco hornworms.
- Large holes were in the older leaves.
- Dead aphids were found.
- Several plants had tomato spotted wilt virus were present.

REQUEST TO REDUCE PRE-HARVEST INTERVAL FOR EBDC FUNGICIDES ON POTATOES

by Gene Burgess

EPA has issued a hearing notice regarding ethylene bisdithiocarbamate (EBDC) pesticides mancozeb, maneb, and metiram - a group of fungicides used to control a broad spectrum of fungal diseases such as blight, rot, mold, or scab, in fruit, vegetable, field, and ornamental crops. The EBDC registrants, represented by the EBDC/Ethylenethiourea (ETU) Task Force, have requested that EPA modify the regulatory decision requiring a 14-day pre-harvest interval (PHI) for the EBDCs on potatoes. The Task Force has requested that the potato PHI be shortened from 14 days to 3 days, due to the recent spread of late blight throughout the United States. A notice of hearing is required under 40 C.F.R. part

164 subpart D when a registrant requests to modify an existing pesticide registration cancellation order.

EUROPEAN UNION – ORGANIC LABELING

by Gene Burgess

After 18 months of discussion, mostly contentious, the European Union issued new rules for organic labeling. In addition to specific labels for products with at least 70 or 95 percent organic materials, a 0.9 percent limit has been placed on accidental or unavoidable “contamination” from transgenic plants. (*International Herald-Tribune*, 6/12/07)

PESTICIDE ALTERNATIVES FOR DISEASE CONTROL IN ORNAMENTAL PLANTS

by Alan Windham

Occasionally, I am asked, “Aren’t there ways to control plant diseases other than fungicides?”. Below is my answer:

1. **Disease free plants**- if possible, always check the foliage and roots (containers or cell packs) for signs of disease. Foliage should be free of spots and blemishes; young roots should be white. No, I have never been accosted by garden center personnel for checking the health of a root system. Otherwise, you could bring home black root rot, phytophthora root rot or worse. This is the best way to avoid disease problems.

2. **Disease resistant plants**- there are bedding plants, perennials, roses, shrubs and trees that are resistant to many common disease problems. There are disease resistant dogwoods, crape myrtles, crab apples, shrub roses, zinnias, etc. Do a little research before shopping.

3. **Water placement and frequency**- Irrigation during periods of drought can help prevent canker diseases on woody plants. Cankers are localized infections which may lead to branch dieback or death of a whole plant. To minimize some leaf spot diseases, use drip irrigation to keep foliage dry. Some fungi require free water on leaves for their spores to germinate.

4. **Prune to remove diseased shoots or branches** - It is always a good idea to prune out dead shoots and branches from woody ornamentals. In many cases the shoots were killed by a plant pathogen such as those causing fire blight (apples, crabapples or pears) or phomopsis or botryosphaeria canker (azalea, rhododendron, young trees). Prune away diseased portions and disinfect your pruners or saw prior to moving to the next plant.

5. **Sanitation** - Remove infected plants from a perennial border or garden. Coneflower infected with Aster Yellows, hosta infected with Hosta Virus X or a perennial flower killed by Southern Blight should be removed to prevent the chance of spread to neighboring healthy plants.

6. **Removal of noncrop hosts or alternate hosts**-It’s going to be very difficult to grow a plum if you have a black cherry nearby that’s infected with black knot disease. The native cherry will constantly

be a source of fungal spores that will infect rapidly expanding shoots on the plum each spring. Also, you may not get to enjoy fruit on your hawthorne each winter if there is an Eastern red cedar or other upright juniper nearby. Each will constantly be a source for spores that make up the life cycle of the cedar-hawthorne rust. Rose rosette disease may be a problem on your shrub roses if infected multiflora rose is growing nearby.

7. Raised beds and adding organic matter- If you have had problems with root rot diseases, trying adding 2-4 inches of pine bark and tilling it into the bed. You will have raised the height of the bed; now crown it to speed water run off. This will be particularly helpful if you plan to grow azaleas, rhododendrons or other ericaceous plants susceptible to phytophthora root rot.

MEDICINE TO TREAT DIARRHEA

by Gene Burgess

The U.S. government approved a mid-May plans by Ventria Bioscience of Sacramento, California, to grow up to 3,200 acres of genetically modified rice in Geary County, Kansas, to produce proteins that would be used in medicine to treat diarrhea. The company has grown it for nine years in North Carolina, California and South America. The approval by the animal and Plant Health Inspection Service (APHIS) fuels concerns that another GMO crop will contaminate the U.S. food and feed supply. APHIS received more than 20,000 comments on Ventria's application, with only 29 groups or individuals supporting the planting of the GMO rice in Kansas. (*Reuters*, 5/16/06).

RED PALM MITE (*Raoiella indica*)

by Gene Burgess & Beth Long

Scientists with the Agricultural Research Service (ARS) and the Animal and Plant Health Inspection Service have joined a multinational effort to stop the red palm mite (*Raoiella indica*), an invasive pest that rides the wind and, until now, was mainly known for attacking coconut palms in the Eastern Hemisphere's tropical and subtropical regions. According to the mite expert at the ARS Systematic Entomology Laboratory in Beltsville, Maryland, the red palm mite has been found in the Caribbean region, including Puerto Rico and St. Thomas. The fast spread of this pest, which causes serious leaf damage, constitutes the biggest mite explosion ever observed in the Americas. In Trinidad, ARS researchers estimated there were 30 to 100 million mites per palm. At stake may be more than just a health of the ornamental plant industry and the palm trees. On Dominica, the mite has attacked banana plant, and a grower in Trinidad indicated that he anticipates a 50 percent loss in coconut production on his property. The red palm mite was first described in 1924 in India, and identified in the Western Hemisphere three years ago in Martinique.

TOBACCO BLUE MOLD SAMPLING

by Darrell Hensley

The Animal Plant Health Inspection Service (APHIS) has made agreements with China pertaining to the export of tobacco grown in areas with positive occurrences of tobacco blue mold.

It is very important that all parties who have an interest in certifying tobacco for export to China follow the attached procedures.

Lab analysis of the field sampling for the 2007 season will need to be sent to the NSCU Disease and Insect Clinic at the following address:

Plant Disease and Insect Clinic
100 Derieux Place
1227 Gardner Hall, Campus Box 7211
North Carolina State University
Raleigh, NC 27695-7211

You can contact the Clinic Manager/Pathologist (Dr. Tom Creswell) by phone at 919-515-3619, or by email at: tom_creswell@ncsu.edu

The cost of taking and analyzing the necessary samples needed for the export certification protocol will be the direct responsibility of the industry.

The group that will pay for the samples is dependent on the type of tobacco samples (flue-cured vs. burley) and the state. Also, the originating state and type of tobacco needs to be on the lab sample submission form so that Dr. Creswell will who to bill.

For burley tobacco samples from Tennessee, bill:

Chalie Finch
Burley Stabilization Corporation
P.O. Box 6447
Knoxville, TN 37914
Phone: 865-525-9381

APHIS continues negotiations, and has asked China to discontinue the field sample protocol of the agreement, but China has not yet agreed to the request. APHIS will continue to pursue this with the Chinese Government.

I have three APHIS agreements that pertain to US tobacco exports to China. The *Field Sampling Protocol* is the most recent document, which contains the sampling protocol, as well as the address and contact information for the certified laboratory.

I will be happy to provide copies to you for your various cooperators.

SAWFLIES

by Frank A. Hale

Sawflies are related to bees, wasps, and ants and are placed in the insect Order Hymenoptera. The larvae look like butterfly and moth caterpillars except they have more than five pair (usually 8 pair) of fleshy prolegs and the prolegs lack tiny hooks called crochets. They are voracious feeders that attack many types of plants in the landscape including elm, willow, and occasionally basswood, birch maple, and poplar (elm

sawfly); hollyhock (hollyhock sawfly); hibiscus (hibiscus sawfly); dogwood (dogwood sawfly); conifers (European pine sawfly, redheaded pine sawfly, introduced pine sawfly, blackheaded pine sawfly and others); oak (pin oak sawfly, scarlet oak sawfly); currant and gooseberry (currant sawfly); mountain-ash (mountain-ash sawfly); columbine (columbine sawfly); birch (dusky birch sawfly); grape (grape sawfly); rose (roseslug, bristly roseslug); cherry, plum, hawthorn, pear, and cotoneaster (pearslug); and butternut and other nut trees (butternut woollyworm).

We are currently seeing dogwood sawflies. They feed on various dogwoods, particularly gray dogwood and the osier dogwood. They have a waxy blush that covers their body. The last larval stage is about one inch long and has prominent black spots. The full grown larvae will leave the plant in search of soft or decaying wood in which to spend the fall and winter. These larvae will tunnel into siding and foam insulation in houses, sheds, wooden decks, and even wooden lawn furniture. Woodpeckers can further damage structures during the winter while in search of a tasty snack.

The slug sawflies have much shorter legs and have a slimy appearance that reminds me of gummy worm candy. Examples would be the roseslug, pearslug, bristly roseslug, scarlet oak sawfly, and pin oak sawfly. They tend to skeletonize leaves as they feed between the veins.

Control of sawflies is not difficult with insecticides such as Sevin, Orthene, Malathion, Conserve SC, Merit, Marathon, Discus, and pyrethroid insecticides such as Decathlon, Tempo, Scimitar, Mavrik, DeltaGard, Astro, Onyx, and Onyx Pro. The *Bacillus thuringiensis* (Bt) insecticides such as Dipel only work the lepidopterous caterpillars (butterfly, moth, skipper larvae) so Bt is **not** recommended for sawfly control.

EEK! Bird Mites!

by Karen Vail

What are bird mites? Bird mites are bloodsucking ectoparasites that are normally found on birds or in their nest. When a bird dies, the fledglings fly, or the nest is otherwise abandoned, the mites may migrate into buildings. Heavy rains may also cause mites to migrate into homes. Rain may flood nests built in eaves or gutters and kill the nestlings. Once their host is dead or gone, the mites seek an alternate food source. It's often the itching and irritation caused by these bites that alerts the building's occupants to the mites' presence. However, these mites are visible with the naked eye. They are often described to be as large as a period at the end of a sentence. Some bird mites are closely related to rodent mites and can only be distinguished by a trained taxonomist.

How do I control bird mites? To control bird mites, the bird, droppings and nest should be removed. Care must be taken to avoid inhaling dust from bird droppings. Lightly moisten the droppings prior to removal to prevent histoplasmosis and other disease-causing agents from becoming airborne. A respirator and gloves should be used when removing nests, droppings and birds. The Centers for Disease Control and Prevention provide guidance to safely remove guano (<http://www.cdc.gov/niosh/docs/2005-109/>). Nests are often found in attics, chimneys, eaves, rafters and gutters or down spouts. Details on removing and excluding birds from structures can be found in PB1624, *Controlling Pesky Critters Around Your Home* (<http://www.utextension.utk.edu/publications/pbfiles/pb1624.pdf>).

Once the nest is removed, the area can be dusted (synthetic pyrethroids or silica aerogel) or sprayed with a residual insecticide (synthetic pyrethroids). The site to be treated must be listed on the label. A space treatment with a nonresidual aerosol insecticide (synergized pyrethrins, allethrin, etc.) can be used with the

residuals. Mites seen crawling along interior surfaces can be removed with a vacuum, or cloth moistened with alcohol, ammonia or other cleaning solutions. Washing clothing or bedding in warm/hot water should kill mites that are present on fabrics such as clothes, bedspreads, sheets and other bedding. A dry, low vapor steam can also be used to clean upholstery, sofas and beds. Bird mites can survive several days to several months without feeding, so an effective control strategy is necessary to prevent building occupants from being bothered by these little critters.

I have recently received several inquiries about bird mites. Care should be taken to avoid labeling clients as having “delusory parasitosis” when they complain of itching this time of year. Poor eyesight may limit their ability to see these mites. Suggest a hand lens or magnifying glass to aid detection. Placing glue boards around edges of walls and other possible areas of mites infestation may allow the occupant to obtain a sample.

The publication, *Invisible Itches: Insect and Non-insect Causes* available at <http://www.ca.uky.edu/agc/pubs/ent/ent58/ent58.pdf> has an extensive discussion on many of the causes of itches. I refer you to this article to help you decipher your clients causes of itches - whether they are insect related or not!

Modified from:

Mike Potter. June 6, 1999. BIRDS, BUGS AND BUILDINGS in Kentucky Pest News Number 849, University of Kentucky.

Photo courtesy: Steve Powell, Tennessee Department of Agriculture and David Cook, Entomology and Plant Pathology, UT.

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Photo courtesy: Steve Powell, Tennessee Department of Agriculture and David Cook, Entomology and Plant Pathology, UT.



FIELD CROP UPDATE

by Russ Patrick

Corn:

Appears to be drying down with no real problems unless southwestern corn borers found the susceptible varieties and deposited their eggs for the overwintering generation. This is a good possibility, even though moth capture in traps was low this week, with almost none found at Jackson or Milan trap sites.

Soybeans:

Watch for grasshoppers damaging wheat planted soybeans. They are small enough to incur damage from heavy infestations of grasshoppers, right now and grasshopper populations are growing. Also, watch for *Decetes* stem borer, adults may be present depositing their eggs into stems of beans. This pest can cause lots of damage if populations are great enough.

Stored Grain:

There will be information on storage and insect problems in stored grain presented August 9 in Jackson in association with Kathy Flanders of Auburn University, Alabama. We will present some new methods used by other states to kill stored grain insects. I believe you will find it very interesting. We will have a nice notebook with handouts concerning technology which has not been introduced to Tennessee growers. Please plan to attend my first public demonstration of a terrific new device.

SE-EPPC EARLY DETECTION & DISTRIBUTION MAPPING SYSTEM (EDDMapS)

by Beth Long

Much of the current distribution data for invasive plants in the southeastern U.S. is very incomplete, often available only to a county level and is generally not available online. In response to this lack of information, the Southeast Exotic Pest Plant Council (SE-EPPC) has initiated an invasive species mapping project designed by the University of Georgia Bugwood Network.

The SE-EPPC mapping project seeks to provide more complete data on the distribution of selected invasive plant species across the South. The project web site is located at: <http://www.se-eppc.org/> Clicking on '[View Distribution](#)' will link to an interactive map, allowing the choice of a state. Clicking on the state shows the plants that are considered to be pests and will link to county level maps that show where these plants have been documented to be established.

Other options provide distribution information about these pest plants, GPS point data and also the option to report new GPS locations of a pest plant. To ensure data validity, herbarium vouchers for recorded infestations are encouraged for submission to a local herbarium. Additionally, identification images can be uploaded with the infestation distribution data.

Check out this interesting site and see what pest plant has (or hasn't) been reported in your county!

PLANT & PEST DIAGNOSTIC HIGHLIGHTS

by Bruce Kauffman

We received 140 samples from June 12 to July 6, 2007 including 96 samples via the UT Diagnostic Web Site.

FRUIT and VEGETABLES :

Tomato spotted wilt of tomato and pepper; early blight of tomato; low pH of sweet corn; leaf spots and low pH of watermelon; fertilizer burn of cantaloupe; bacterial blight of sweet corn; phenoxy herbicide damage of tomato; physiological leaf curl of tomato; black rot of grapes; lightning injury to tomato; rhizoctonia seedling disease of snap beans; bacterial spot of tomato; leaf rust of blueberry; septoria leaf spot of tomato; root-knot nematode and/or herbicide injury to green beans; dry weather symptoms on strawberry and tomato; blossom-end rot of pepper; no squash fruit due to lack of insect pollination.

TOBACCO and FIELD CROPS :

Tomato spotted wilt virus of tobacco; sore shin of tobacco; black leg of tobacco; charcoal rot of soybeans; frog eye leaf spot of tobacco; black shank of tobacco; tobacco ringspot virus of burley tobacco.

INSECTS, CRUSTACEANS, and MITES :

Minute pirate bug on cotton; thrips and twospotted spider mites on hollyhock; mites on malva; leaf-chewing insects on rose; stink bug eggs on tobacco; spider mites of tomato, euonymus ground cover; aphids and rust mites of apple; Japanese beetles on weeping cherry; twospotted spider mite of rose; southern red mite damage to cherry laurel; spruce spider mites and flat mites on cherry laurel; spruce spider mites on blue spruce, arborvitae, and juniper; termites on petunia roots; brown lacewings on tomato; planthopper on cherry laurel; squash bugs eggs on tomato; cottony camelia scale of holly; psyllid feeding of serviceberry; wireworm damage to potato; millipedes in hay field; clear-winged moth borer on pin oak; European corn borer or corn earworm damage and western corn rootworm chewing on corn leaves; giant resin bee in tree; thrips and spider mite injury to pole beans; tetralopha webworm damage to willow oak; spruce spider mites and flat mites on cherry laurel.

In and around the house :

Armyworm moths inside commercial building; brown recluse spider; carpet beetle larvae; common thrips; winged ant; cockroach; springtails; thread-waisted wasps; assassin bug; block-headed carpenter ant; antlion; moth fly; boxelder bug; lone star tick; acrobatic ant in powder post beetle galleries.

ORNAMENTAL :

Black root rot of Japanese holly and compacta holly; phytophthora root rot of hydrangea, azalea, dogwood, ginkgo, petunias, arborvitae, boxwood, and helleri holly; root system dieback due to drought and over watering of rhododendron, dogwood, yew and boxwood; glyphosate damage to arborvitae; leaf drop of weeping cherry due to dry weather; powdery mildew of euonymus; winter injury due to dry weather on arborvitae; botrytis leaf blight of rose and geranium; marginal leaf scorch due to dry weather on rose; botryosphaeria canker of dwarf inkberry, Leyland cypress and Japanese clethra; scab leaf disease of euonymus; April freeze damage of euonymus and boxwood; seiridium canker and drought on Leyland cypress; kabatinia twig blight of arborvitae; drought and competition caused mortality of burning bush; drought, cytospora and pestalotiopsis blight of cherry laurel; nectria canker of stressed redbud; viral disease and root problems on dahlia; southern blight stem rot of Black-Eyed Susans; woodpecker damage to holly and Bradford pear; drought and fungal canker of arborvitae; stem girdling canker or borer of cherry; powdery mildew of Black-Eyed Susans; scab leaf spot of pecan; dog vomit slime mold on mulch; dry weather stress of plantain, holly, white pine, azalea, and dogwood; hollyhock rust on malva leaves; rust of purple shamrock; bacterial blight of lilac; marginal drought leaf scorch on red maple; herbicide damage to tulip poplar; plant stress and leaf disease of Foster holly; bacterial leaf scorch of red oak group; April freeze damage and dry weather damage on holly; needle disease of blue spruce; April freeze and fire blight of Bradford pear; April freeze damage to blue spruce; drought stress, spider mites, and needle disease of blue spruce.

TURF : Southern blight disease of bentgrass; anthracnose disease of bentgrass; excessive organic matter in bentgrass; foliage decline of bentgrass due to heat and over watering; gaeumannomyces blight of stolons and leaves of bermudagrass; smut disease of bermudagrass; curvularia disease of bentgrass.

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.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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