

Progress

Education

Science

Technology

Vol. 10 No. 3 Sept. 2005

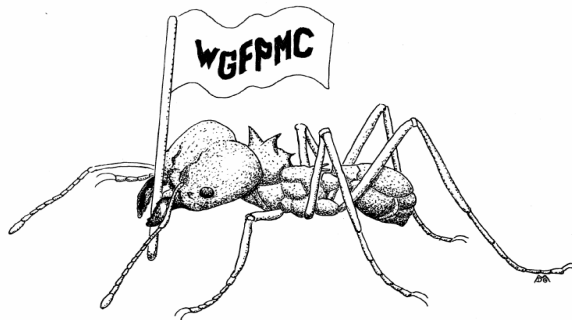
**Quarterly Newsletter
on Western Gulf
Forest Pest Management
Issues**

PEST is a quarterly newsletter that provides up-to-date information on existing forest pest problems, exotic pests, new pest management technology, and current pesticide registrations in pine seed orchards and plantations. The newsletter focuses on, but is not limited to, issues occurring in the Western Gulf Region (including, Arkansas, Louisiana, Mississippi, Oklahoma, and Texas).

Announcement:

Entomology Seminar - All WGFPMP executive and contact representatives, industry, and TFS foresters are invited to attend the fall session of the East Texas Forest Entomology Seminar scheduled for November 3-4, 2005. The meeting will be held from 1:00 PM until 8:00 PM on Thursday at Kurth Lake Lodge, north of Lufkin, and continue from 8:00 AM until noon on Friday at the College of Forestry and Agriculture, SFASU in Nacogdoches. Registration is \$20, which includes an evening meal. For additional information and/or an agenda, contact Ron Billings at 979/458-6650 or rbillings@tfs.tamu.edu.

Western Gulf Forest Pest Management Cooperative



**Texas Forest Service, Forest Pest Management,
P.O. Box 310, Lufkin, Texas 75902-0310**

Summary of 2004 WGFPMP Research Projects

In 2004, three research projects – tip moth, leaf-cutting ant, and systemic injection - were continued from 2003. Results from systemic injection and tip moth studies were presented in the May and July PEST newsletters, respectively. A summary of the results from a leaf-cutting ant (LCA) trial are presented below.

LCA Control

The Texas leaf-cutting ant (TLCA), *Atta texana* (Buckley), is a serious pest in first- and second-year pine plantations in east Texas and west-central Louisiana. The WGFPMP was instrumental in getting a 24C (Special Local Need) registration for Volcano Leafcutter Ant Bait in TX (1999) and LA (2000). However, Volcano® was recently phased out as a result of an agreement between EPA and the manufacturer, Griffin LLC. Trials conducted by the WGFPMP also have shown that Blitz, fipronil on citrus pulp, is highly effective against LCA. Although a registration package had been submitted to EPA by Aventis in 2001, Bayer - the company now holding the rights to fipronil - has decided not to support the registration and marketing of the product in the US.

Amdro® Leafcutter Ant Bait (hydramethylnon on corn grit) had been registered for use against TLCA in the 1990's but was found to be generally ineffective (only 3 out of 10 colonies were killed with a single application). This product was withdrawn from the market in the late 1990's. In 2003, Grant's Laboratories reintroduced this bait formulation as Grant's Total Ant Killer Bait®. Again the efficacy of this bait formulation was found to be generally poor (only 3 out of 10 colonies were killed with a single application).

In January 2005, Ambrands introduced Amdro® Ant Block. Although the bait is very similar to the old Amdro and Grant's bait, Ambrands claims

Continued on Page 2

Tip Moth Projects (Continued from Page 1)

Table 1. Efficacy of hydramethylnon (Amdro®) applied by spreader to control the Texas leaf-cutting ant (*Atta texana*) in east Texas (Winter - Summer 2005).

Treatment	No. of Colonies Treated	Mean Nest Area (ft ²)	Mean # Mounds @ Trt.	Mean % initial activity a (% inactive colonies):							
					2 wk		8 wk		16 wk		33 wk
				N		N		N		N	
Hydramethylnon (Amdro® Ant Block)	10	733	88	10	38.5 (10)	10	10.7 (50)	10	---- (80)	9	37.3 (0)
Check (no treatment)	5	515	87	10	110.8 (0)	10	92.4 (0)	10	---- (0)	10	100.0 (0)
Total	15										

that the formulation contains more sugars to make it more attractive to certain ants including LCA. In March, the WGFPMP initiated a trial to evaluate the efficacy of Amdro Ant Block in halting ant activity in colonies.

Fifteen TLCA colonies were treated and monitored in central east Texas on land managed by Temple-Inland, and private landowners. The level of TLCA activity was evaluated 2, 8, 16 and 33 weeks post-treatment for each colony and compared to activity prior to treatment.

The Amdro® treatment markedly reduced ant activity after 2 weeks compared to the check colonies. It had appeared that the bait had been successful in

completely halting ant activity in 80% of the treated colonies after 16 weeks, but when the colonies were revisited after 33 weeks post treatment, all treated colonies were active. It appears that the shut down of colony activity at 8 and 16 weeks post-treatment was due to drought conditions that prevailed through most of the summer. Although, Amdro® ultimately failed to halt ant activity in any of the colonies, the treatment did significantly reduce the mean ant activity compared to initial levels. An additional trial is planned to evaluate the efficacy of the Amdro® bait when applied during the fall.

The WGFPMP continues the search for a safe and effective control option for TLCA in pine plantations.

Thought You Might Be Interested to Know . . .

Guthion® May be a Lost Cause

On August 17, the EPA issued a 30-day comment period regarding the registrant's request to terminate uses of azinphos methyl (Guthion®) on cranberries, cotton, peach/nectarine, potato, and **Southern pine seed orchards**. The Agency intends to cancel these uses at the end of this period. Existing stocks may be sold until the end of March next year and may be used until the end of September of 2006. (*Federal Register*, 8/17/05 via Chemically Speaking, September 2005).

Evaluation and Management of Storm-Damaged Timber

by
H. A. (Joe) Pase III

This year (2005) likely will be remembered as the “Year of the Hurricanes”. Several storms, Katrina and Rita in particular, caused wide-spread timber damage across east Texas, Louisiana and Mississippi. The storms uprooted and broke hundreds of thousands of trees, damaged property, and interrupted electrical and phone service have been interrupted for weeks and months in some areas. Homeowners often ask what can be done to save damaged shade and ornamental trees and forest landowners are interested in how to assess the damage to their timber. In addition to the direct damage caused by the wind, insects and fungi often cause additional losses. Forest landowners are especially concerned about a build-up of pine bark beetle populations, in particular the dreaded southern pine beetle. The following discussion deals with these issues.

A brief comment about pine bark beetles needs to be made. There are five different pine bark beetles that attack and kill pine trees in East Texas (as their name implies, they do NOT attack hardwood trees). The southern pine beetle (SPB) is the most serious because it alone is capable of killing healthy trees and can kill large areas of pine timber (one uncontrolled infestation of SPB in East Texas killed 7,000 acres of pine timber in a 12-month period in 1993). The other four pine bark beetles (three species of engraver or *Ips* beetles and the black turpentine beetle) attack weakened, injured, and stressed pines and individual infestations seldom encompass more than 10-15 trees. They usually attack scattered single trees or two or three trees in a group. Salvaging beetle-infested trees, especially after a storm, is the recommended way to control pine bark beetles.

The Forest Pest Management Section of the Texas Forest Service has monitored tree survival and bark beetle activity following a tornado that damaged pine timber in Montgomery and Liberty counties in May of 1983. On-the-ground checks were made 10 weeks, 15 weeks, and 40 weeks after the storm. The following damage categories were used:

- Broken bole with no limbs
- Broken bole with 1-3 limbs
- Broken bole with more than 3 limbs
- Broken bole with crown still attached
- Uprooted
- Other (bent, leaning, scarred, etc.)

As far as bark beetle attacks were concerned, no SPB were found in the storm-damaged timber in 1983. However, depending on the amount of damage to the tree, one or more species of engraver beetles and/or black turpentine beetles attacked the trees. Similarly, the lack of SPB and the presence of the other pine bark beetles in storm-damage timber have been reported after a severe wind storm in East Texas in February 1998 and in other areas of the South following storm damage.

Ten weeks after the storm, all uprooted trees were attacked by engraver and/or turpentine beetles. Most (84%) of the trees with a broken bole and no limbs were attacked. Trees with a broken bole and one or more live limbs were largely uninfested at the 10-week check.

Fifteen weeks after the storm, more damaged (weakened) pine trees had come under bark beetle attack. Now many of the trees with broken boles that had one to three limbs were attacked as well as those that were bent, leaning, or scarred.

After 40 weeks, most of the severely damaged trees had succumbed to bark beetle attacks. However, 63% of the trees with more than three limbs remaining were still unattacked. Also, only 8% of the trees that had a crown attached to the broken bole survived. Interestingly, few undamaged trees were attacked by bark beetles indicating that healthy trees are of no interest to engraver or turpentine beetles, even in areas where populations of these bark beetles have increased.

Forest landowners with storm-damaged timber should consider salvage logging as a way to utilize the timber rather than letting it go to waste. Timber salvage operations are more time consuming than regular logging, therefore the prices paid for the damaged timber will be lower than those for standing, green timber trees. Salvage should be conducted as soon after the damage as possible before various wood boring insects, decay, and stain fungi further degrade the timber. Also, dead timber often dries out rapidly and has less dollar value if weight scaled. Large volumes of pine logs that will

Continued on Page 4

Storm-Damage (continued from page 3)

not be immediately processed at a mill can be kept under a water sprinkler system or in a log pond to prevent invasion of insects and fungi.

Following a wind storm, some pine trees may not exhibit any signs of damage other than leaning. These trees are commonly referred to as root sprung. Unless they are attacked by pine bark beetles, they may not die immediately, but they usually decline over a period of several years and eventually are attacked by bark beetles. Root sprung trees should be removed if a salvage operation is conducted.

Hardwood trees are seldom killed by storm breakage. Hardwood trees that are standing and have even a small portion of the crown remaining will probably

recover in time. Large hardwood trees that are uprooted should be removed. It is important to remember that hardwood trees with large damaged areas on the trunk or large broken limbs may be infected with decay fungi. After several years, these decay fungi typically weaken a tree structurally and make the tree more susceptible to wind or ice breakage. Decay fungi probably won't kill a hardwood tree. Damaged hardwood trees in residential areas that are not removed should be properly pruned to eliminate broken branches and branch stubs and promote rapid healing.

Finally, homeowners should be reminded to contact their insurance agent concerning the loss of shade trees -- pines or hardwoods -- or property damage caused by falling trees.

Waylay®: Some New Ammunition Against Regeneration Weevils

by Don Grosman

Regeneration weevils (pales and pitch-eating) can be a significant problem in first year pine plantations in the southern U.S. Adults feed on the phloem tissue of young seedlings, often girdling the stems and causing mortality. Since the mid-1990s, Pounce® (permethrin) has been registered as a nursery treatment in TX and several other southern states to protect seedlings. Trials conducted by the WGFPMP had shown that Pounce® can effectively reduce potential seedling mortality by 75% and that protection can last 6 months. Unfortunately, Pounce® was not registered for use in LA.

In the fall of 2004, Pounce® suddenly became difficult to find in the Western Gulf region and there was concern that FMC (the product manufacturer) may be phasing out this formulation. Fortunately, Control Solutions, Pasadena, TX, stepped forward this summer and offered to pursue 24C (Special Local Need) registration for Waylay 3.2AG (permethrin) in nearly all southern states (AL, AR, , FL, GA, LA, MD, MS, NC, SC, VA & TX). As of

this writing (Oct. 14), five states (TX, AR, LA, VA and MS) have approved 24Cs for Waylay®. Unfortunately, pursuit of a 24C in GA was discontinued.

Waylay 3.2AG is the same formulation as Pounce® 3.2EC (both contain 3.2 lbs active ingredient per gallon). Thus, it is applied to nursery beds at the same rate – 2 quarts per 100,000 seedlings.

Although permethrin (applied to pine seedlings in nurseries) is not registered for other forest pests, WGFPMP trials have found that treated seedlings are protected from foraging by Texas leaf-cutting ants. Permethrin is registered as a post plant treatment against pine tip moth but the cost of application after planting is prohibitive. The nursery treatment can provide some added protection against early season (1st generation) infestation by pine tip moth.

Dealing with Bees and Wasps in the Fall

(source: Georgia Pest Management Newsletter, September 2005)

As their numbers build through the season, hornets, yellow jackets, bumblebees, and other social wasps defend their nests and forage for food more aggressively. Many people are afraid of wasps and bees. Although many wasps and bees can deliver a painful sting, they are usually not difficult to manage (if you need to). These tips will help you understand and cope with wasps and bees in the field and around your home.

- 1) Are the wasps/bees a real problem? It is best to do nothing unless the wasps/bees are a threat to you or your family. Keep in mind that the nest has been there through the summer. Also remember that many wasps/bees consume large numbers of pest insects. Paper wasps search the garden thoroughly for caterpillars and other soft-bodied insects.
- 2) Teach your children to recognize stinging insects and their nests. Remember that paper wasps often nest in shrubs.
- 3) Keep a sting-relief product handy; some of them are very effective if applied immediately after a sting. Oral antihistamines can also help relieve symptoms. More severe symptoms, such as shortness of breath, nausea, or difficulty swallowing require immediate medical attention.
- 4) Can you wait until cool weather? Except for honeybees and ants, nearly all social wasps/bees die during the winter. The survivors are typically mated females that will try to start a new colony in the spring. The wasps/bees will not reuse the nest next season although a hole in the ground or a hollow in the tree may be colonized again.
- 5) If you need to eliminate a wasp or bee nest, remember that they are least active at night. The best time for you to treat the nest is at dusk or early in the morning. It can be dangerous to approach a nest at night with a flash light. The wasps may be attracted to the light if they are disturbed.
- 6) If you need to use a pesticide, look for a wasp and bee product that will spray 20-30 feet. Carbaryl (Sevin) is a common household pesticide that is effective against wasps and bees.
- 7) Apply the product in and around the entrance hole of the nest. The insects will be poisoned as they enter or leave the nest.

This publication provides additional information:

http://www.ent.uga.edu/publications/protect_against_bites.htm.

On The Lighter Side . . .

The 6 Foot Cockroach

A man was sitting at home one evening, when the doorbell rang. When he answered the door, a 6 foot tall cockroach was standing there. The cockroach immediately punched him between the eyes and scampered off.

The next evening, the man was sitting at home when the doorbell rang again. When he answered the door, the cockroach was there again. This time, it punched him, kicked him and karate chopped him before running away.

The third evening, the man was sitting at home when the doorbell rang. When he answered the door, the cockroach was there yet again. It leapt at him and stabbed him several times before running off. The gravely injured man managed to crawl to the telephone and summoned an ambulance. He was rushed to intensive care, where they saved his life. The next morning, the doctor was doing his rounds. He asked the man what happened, so the man explained about the 6 foot cockroach's attacks, culminating in the near fatal stabbing.

The doctor thought for a moment and said, "Yes, there's a nasty bug going around."