

# Progress Education Science Technology

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Quarterly Newsletter  
on Western Gulf  
Forest Pest Management  
Issues

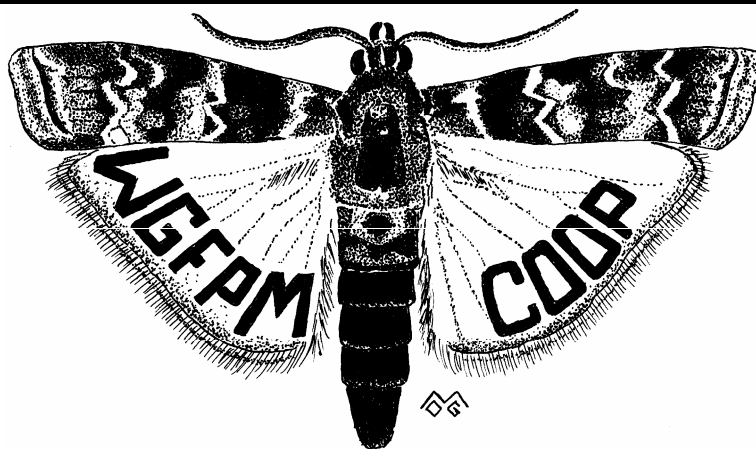
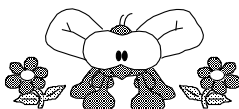
PEST is a quarterly newsletter that provides up-to-date information on existing forest pest problems, exotic pests, new pest management technology, and current pesticide registrations in pine seed orchards and plantations. The newsletter focuses on, but is not limited to, issues occurring in the Western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

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## Announcements:

**Executive Committee Meeting.** The WGFPMP executive committee will be having their annual meeting on January 21, 1999. The meeting will begin at 10:00 AM at the Texas Forest Service Pest Control library at the Cudlipp Forestry Center in Lufkin, TX. The meeting will cover research results from the 1998 field season and proposed activities for 1999. If anyone has pest management concerns or reseach ideas, contact your exectutive or contact representative (see list on page 8) or Don Grosman, TFS, at 409/639-8170, before the January 21st meeting.

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Southern Pine Coneworm, *Dioryctria amatella* (Hulst)

Texas Forest Service, Forest Pest Control Section,  
P.O. Box 310, Lufkin, Texas 75902-0310

## Latest Word on EPA's Reassessment of Organophosphate Insecticides under FQPA

(from the Georgia Pest Management Newsletter, Dec. 98)

If you're concerned about status of the Environmental Protection Agency's (EPA) reassessment of organophosphate insecticides, you should visit two EPA web sites. One has the complete EPA health assessments for the first 16 targeted organophosphates. The second site has information on all 40 organophosphates although all of the assessments are not complete. The time to influence government processes is EARLY in the game. Take the time to review EPA documents and provide feedback.

First 16 organophosphates: <http://www.epa.gov/oppsrrd1/op>

All 40: <http://www.epa.gov/oppsrrd1/op/hiafcfqp.pdf> (You will need Adobe Acrobat Reader to view this publication.)

The FQPA requires EPA to reduce the safe level of pesticide by another factor of ten if children are thought to be more susceptible than adults or if important data are missing. Currently, the Agency requires companies to determine a No Observable Effect Level in laboratory animals. Then this level is reduced 100 fold to establish a safe level for humans. The EPA will not require any additional safety factor for 18 organophosphates (Table 1). For 20 chemicals, the Agency will require additional safety factors ranging from 3X to 10X because the literature indicates a potential risk for children or the data are incomplete. In cases where the data are incomplete, the extra safety factor may be reduced or removed with additional information. The remaining two chemicals are either being cancelled (fonophos) or FQPA is not applicable because it is labeled for greenhouse use only (sulfotepp).

Continued on Page 2

**Table 1.** The Environmental Protection Agency's recommendations on 40 organophosphate insecticides.

No Additional Safety Factor	Additional Safety Factor (3X)	Additional Safety Factor (10X)	Retained - Inadequate Data	Not Applicable
<b>Acephate</b>	Coumaphos	Cadusafos	Chlorpyrifos-	Fonofos
<b>Azinphos-methyl</b>	Dichlorvos	<b>Chlorpyrifos</b>	methyl	Sulfotepp
Bensulide	<b>Disulfoton</b>	Methyl parathion	Dicrotophos	
Chlorethoxyfos	Isofenphos	<b>Oxydemeton-</b>	Isazophos-	
<b>Diazinon</b>	Methamidophos	<b>methyl</b>	methyl	
<b>Dimethoate</b>	Phorate	Tribuphos	Temephos	
Ethion	<b>Phosmet</b>	Trichlorfon		
Ethoprop	Phostebupirim			
Ethyl parathion	Pirimiphos-			
Fenamiphos	methyl			
<b>Fenitrothion</b>	Terbufos			
Fenthion				
<b>Malathion</b>				
Methidathion				
<b>Naled</b>				
Profenofos				
Propetamphos				
<b>Tetrachlorvinphos</b>				

Pesticides in bold-faced are registered for use in forestry-related sites in the Western Gulf Region.

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## Status on the Phase-out of Methyl Bromide

(from The Label, Dec. 98)

The methyl bromide phase out in the United States has changed. The U.S. will no longer be phasing out this ozone-depleting substance in 2001. Due to changes the U.S. Congress made to the Clean Air Act in October of 1998, the United States will now phase out methyl bromide in 2005. The House and Senate conferees accepted an amendment to the USDA fiscal 1999 appropriations bill that postpones the phase out of methyl bromide in the U.S. by four years. Buried in the bill was a rider extending the phase out for the fumigant from 2001 to 2005. The move harmonizes the U.S. Clean Air Act with the United Nations Montreal Protocol, an international treaty reached in 1987 and signed by 167 countries. The original version of the House and Senate agriculture bills did not include the amendment, but legislators felt that complying with the Clean Air Act's original deadline would be potentially devastating to American agriculture. The amendment will require that the EPA make regulatory changes to the U.S. phase out of methyl bromide.

Methyl bromide production and importation will be reduced from 1991 levels as follows:

25% reduction in 1999  
50% reduction in 2001  
70% reduction in 2003  
100% reduction in 2005  
Preshipment and quarantine uses exempt  
Critical agricultural uses allocated after 2005

Methyl bromide is a broad spectrum pesticide used in the control of pest insects, nematodes, weeds, pathogens, and rodents. In the U.S., about 27,000 tons (60 million pounds) of methyl bromide are used annually in agriculture, including soil fumigation in seedling nurseries and leaf-cutting ant control (87%), as well as for commodity and quarantine treatment (8%), and structural fumigation (5%). Globally, about 76,000 tons are used each year, with North American use the highest (43%). The remainder is used in Europe (24%), Asia (includes Israel and the Mid-East) (24%), South America and Africa (9%) combined.

Editor's Note: The latest word on sulfluramid, an effective alternative to methyl bromide for leaf-cutting ant control, is that in a best case senerio, EPA registration may come as early as the summer of 1999. However, because EPA is currently tied up with FQPA, a more realistic date is likely sometime in 2001. Cross your fingers for the former date!!

## Interesting Insects: Imperial Moth

(by H. A. (Joe) Pase III, Texas Forest Service Pest Control Section)

The butterflies and moths are probably the most attractive and best known group of insects. Many of us are familiar with some of the large and showy moths and butterflies that grace the forests of East Texas. However, the caterpillars that eventually develop into these beautiful adult insects are not nearly as well known. Here we will consider the caterpillar (larva) and the adult (moth) of the imperial moth (*Eacles imperialis*).

The caterpillar or larva of the imperial moth does not have a common name. This caterpillar can reach a length of four inches, be as big around as a person's thumb, and appear very intimidating. However, it is harmless. The caterpillar comes in two color phases -- green and dark brown. The green caterpillar has a yellow head with black markings, and several stout, yellow horns just behind the head. The thoracic legs (the "true" legs just behind the head) are also yellow. The fleshy prolegs ("false" legs that are lost before the insect becomes an adult) are yellow and black. The body is covered with long, whitish hairs and a scattering of short yellow spines. The spiracles along each side of the caterpillar appear as a series of large yellow spots rimmed with black and blue. The dark form of the caterpillar is mostly dark brown or dark gray except for yellow thoracic legs and yellow ovals around each spiracle.

The caterpillar is most commonly found feeding on pine, but is known to eat a wide variety of other plants including hickory, persimmon, sweetgum, elm, oak, maple, beech, cypress, and red cedar. In spite of the fact that this large caterpillar can consume a considerable amount of foliage, it doesn't cause any significant damage. The caterpillar matures in the fall and that is the time of year when people most often encounter it. When the caterpillar is full grown, it crawls down the tree to pupate in the soil. It does not spin a cocoon, but forms a large "naked" pupa that is dark brown to black, nearly two inches

long, and about three-fourths of an inch in diameter. The tail is pointed and the head is rounded. The pupa will remain in the soil through the winter and the adult moth will emerge in June or July.

The adult stage is the beautiful imperial moth and can have a wingspan of four to five inches. The female is slightly larger than the male. The female moth has bright yellow wings that are covered with red-brown spots. There is a diagonal red-brown line across all four wings. The forewings have two small red-brown circles and each hindwing has a single circle. The male moth is also bright yellow, but has considerably more red-brown coloring. The yellow and red-brown color pattern in both sexes can be variable. Both sexes are attracted to lights at night and that is a good place to look for them.

If one should happen to find a caterpillar, it is not difficult to rear it to the moth stage. If a caterpillar is found still feeding on the host plant, place the caterpillar, along with some host plant foliage, in a large container (one to two gallon size). Each day, fresh foliage should be provided for the caterpillar. It would be good to place two or three inches of loose, moist soil in the bottom of the container so the caterpillar will have a suitable place to pupate when the time comes. If the caterpillar is found on the ground, chances are it has completed feeding and is searching for a place to pupate. In this case, place the caterpillar in a container with soil (as described above) and before long it will probably change to a pupa. If kept indoors, a beautiful imperial moth may emerge during the winter. Sometimes the imperial moth caterpillar will be attacked by a parasitic wasp or fly. Since the larva of the wasp or fly usually feeds inside the body of the caterpillar, it may not be obvious that the caterpillar has been parasitized. A parasitized caterpillar may pupate, but rarely survives to become an adult moth.

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## Don't Try These Activities at Home or Work. Remember SAFETY FIRST!!

- 1 There was a sad, but true report of a 33-year-old Hammond, LA woman who died from the effects of methyl bromide after she mistook the canisters for propane and tried to connect them to her stove. (from the Chemically Speaking, Sept. 98; USA Today, July 14, 1997 via Wright's PestLaw)
- 2 Christmas wasn't so merry for everyone this year: Two men received significant amounts of second degree burns when they were pouring gasoline inside a laundry room in an attempt to kill fire ants. The pilot light on the hot-water heater ignited the gasoline fumes which caused a flash fire, burning the men. The men poured

gasoline on the ground outside the wall of the laundry room and then began pouring the gasoline inside the 6 X 8 laundry room. The pilot light caught the vapors in the small room and flashed. (Well, at least the fire may have exterminated a few of the fire ants too. What next, flame throwers for fire ant control??) (from the Chemically Speaking, Dec. 98; Vero Beach Press Journal; October 24)

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## Thought You Might Be Interested to Know . . .

### **Sporax Applicator for Feller-Bunchers**

(from Forest Health Technology - Enterprise Team Update, Autumn 1998)

Imagine you are a forest manager with a problem. Let's say you need to do a partial cut in a conifer forest in the South, where feller-bunchers are customarily used for such tasks. But you want to ensure against the spread of annosum root rot, which is present in the stand. You know that annosum root rot is caused by a fungus, *Heterobasidion annosum*, which readily colonizes freshly cut stumps from spores carried by the wind and rain. The best way to control it in partially cut stands is to apply Sporax®, a commercial powdered formulation of borax, to each freshly cut stump. But the expense and manpower required to accomplish this after completing the cutting operation is prohibitive.

A method has recently been developed by the Missoula Technology and Development Center (MTDC), a U.S.D.A. Forest Service Forest Health Technology Enterprise Team partner, which allows you to cut a tree and apply Sporax to the stump in the same operation. The stump applicator system uses an applicator attachment mounted on the back of a feller-buncher saw head. The applicator uses compressed air to blow borax powder from a metered mechanism through a tube and nozzle onto the top of a freshly cut stump. Although the treatment adds some time and cost to thinning an area, it has the potential to reduce the mortality of the remaining trees by up to 7%, the typical mortality rate in areas where annosum root rot is a major problem.

The modular system allows timber harvesters to adapt the applicator to virtually any feller-buncher. During timber harvest, the operator of the feller-buncher cuts the tree, positions the nozzle of the applicator over the stump, and activates the Sporax application system, which applies Sporax to the stump. Tests in 1997 and 1998 showed that stumps treated with the system retained enough boron to prevent annosum root rot. For more information on the Sporax Applicator for Feller-Bunchers and/or receive a copy of the publication entitled "A dry powder borax stump applicator for a feller buncher," contact Harold Thistle, Missoula Technology & Development Center, Fort Missoula, Building No. 1, Missoula, MT 59801. Phone: 406-329-3900; Fax: 406-329-3719; e-mail (Forest Service) hthistle/wo,mtdc; e-mail (outside Forest Service) hthistle/wo\_mtdc@fs.fed.us.

### **Asian Long-horned Beetle Invades Chicago**

(from Forestry Environmental Program News, Nov. 4, 1998)

The USDA Forest Service is investigating the Asian long-horned beetle (ALB), *Anaplophora glabripennis*, an exotic wood borer from China that appears capable of attacking and killing healthy hardwood trees. It is believed that the beetle is entering the United States in untreated wood shipping materials that accompany products being imported from China. Implications for forest health are potentially serious. Hardwood tree species reported to be attacked by the insect include maples, horsechestnut, birch, willow, **sycamore, poplar, green ash**, pear, and plum. Larvae can feed on at least 47 tree species that occur in China, including 23 species of poplar (*Populus*).

The first ALB infestation discovered in the United States was in Brooklyn and Amityville, New York in 1996. Eradication efforts in New York have dramatically reduced but not eliminated local populations in the past two years. New infestations were detected this past summer in a Chicago neighborhood and two suburban communities. A program to detect and destroy infested trees has been put in place with assistance from the City of Chicago, the State of Illinois, and the USDA Animal Plant Health and Inspection Service. Control efforts in both New York and Illinois have resulted in the destruction of more than 2000 trees, to date.

The Plant Protection and Quarantine Service recently found ALB adults associated with Chinese cargo in warehouses in Washington, Massachusetts, and North Carolina and larvae identified as "*Anoplophora* sp." in warehouses in California, Florida, Indiana, Kentucky, Michigan, New Jersey, New York, Ohio, Pennsylvania, South Carolina, **Texas (Houston)**, and Wisconsin. Efforts are being made to encourage exporters in China to fumigate shipping materials with methyl bromide to reduce the risk of entry and establishment of ALB and other exotic wood-infesting insects. For more information on the beetle, see <http://willow.ncfes.umn.edu/asianbeetle/beetle.htm>.

### **What Happened to the Southern Pine Beetle?**

(by H. A. (Joe) Pase III, Texas Forest Service Pest Control Section)

Well, well, well, where has the southern pine beetle gone? For the first time in 17 years, no infestations of the southern pine beetle (*Dendroctonus frontalis*) were reported on state and private lands in East Texas in 1998. This followed two years of relatively low southern pine beetle (SPB) activity in East Texas. Only 288 infestations were reported in 1996 and 853 infestations were reported in 1997. Many people associated with East Texas forestry expected SPB activity in 1998 to increase above 1997 levels; however, this did not happen. The winter of 1997-1998 was very mild which has been known to contribute to increased SPB activity. Also, a severe windstorm in February of 1998 damaged millions of board feet of timber across several counties in East Texas. Many people thought this would trigger a southern pine beetle outbreak. And if that weren't enough, severe drought during the summer of 1998 would surely cause an increase in SPB populations. On the other side of the coin, other indicators suggested declining SPB populations in 1998. Reports of SPB infestations in January and February of 1998 were nonexistent, pointing to low overwintering SPB populations. Historically, storm-damaged timber has not been associated with SPB outbreaks. Also, hot, dry weather has been known to contribute to collapsing SPB populations. Finally, pheromone traps deployed in March of 1998 for predicting SPB activity indicated low levels of SPB for 1998. Interestingly, these commonly used predictors again proved to be correct. In the end, private forest landowners in East Texas enjoyed a year with no SPB losses.

It should be mentioned that other pine bark beetles were present in East Texas during 1998. Storm-damaged timber coupled with the drought and heat contributed to an increase in *Ips* or pine engraver beetle activity. Unlike the southern pine beetle, which can kill most any pine tree in its path, pine engraver beetles select weakened, stressed, or damaged trees to attack. Typically, engraver beetles attack scattered single trees or small groups of trees rarely killing more than 10-20 trees in an infestation. Southern pine beetles, on the other hand, are capable of killing thousands of acres of timber. For example, an uncontrolled SPB infestation in the Indian Mounds Wilderness in Sabine County in 1993 killed more than 7,500 acres of pine timber. Pine engraver beetles have never been known to kill large acreages of timber in the South.

What about southern pine beetle in 1999 and beyond? At the present time (January 1999), indications are that SPB activity will remain low in 1999. More reliable predictions will be made available in April based on the 1999 pheromone survey. Beyond 1999, it is too risky to call! Enjoy the absence of SPB while it lasts, because they will return!

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### **A Little Humor Goes a Long Way**

#### **Ouch!!**

(from Arkansas Pesticide News, October 1998)

An insurance company asked for more information regarding a work-related accident claim. This was the response:

"I put 'poor planning' as the cause of my accident. I am an amateur radio operator and was working on the top section of my new 80 foot tower. When I had completed my work, I discovered that I had, over the course of several trips up the tower, brought up about 300 pounds of tools and spare hardware. Rather than carry the materials down by hand, I decided to lower the items using a pulley. Securing the rope at ground level, I went to the top of the tower and loaded the tools into a small barrel. Then I went back to the ground and untied the rope,

holding it tightly to ensure a slow descent of the 300 pounds of tools. You will note in block number 11 of the accident report that I weigh 155 pounds. Due to my surprise of being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope. I proceeded at a rather rapid rate of speed up the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming down. This explains my fractured skull and broken collarbone. Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley. I regained my presence of mind and was able to hold onto the rope in spite of my pain. At the same time, however, the barrel of tools hit the ground and the bottom fell out of the barrel. Devoid of the weight of the tools, the barrel now weighed approximately 20 pounds. I refer you again to my weight in block number 11. As you might imagine, I began a rapid descent down the side of the tower. In the vicinity of the 40 foot level, I met the barrel coming up. This accounts for the two fractured ankles, and the lacerations of my legs and lower body. The encounter with the barrel slowed me enough to lessen my injuries when I fell onto the pile of tools so only three vertebrae were cracked. I am sorry to report, however, that as I lay on the tools, in pain, unable to stand and watching the empty barrel 80 feet above me, I again lost my presence of mind and let go of the rope..."

### Technology For Country Folk

LOG ON:	Makin a wood stove hotter..
LOG OFF:	Don't add no more wood..
MONITOR:	Keeping an eye on the woodstove..
DOWNLOAD:	Gettin the farwood off the truck..
MEGA HERTZ:	When yer not keerful gettin the farwood..
FLOPPY DISC:	What'cha git from tryin to carry too much farwood..
RAM:	That thar thing whut splits the farwood..
HARD DRIVE:	Gettin home in the winter time..
PROMPT:	Whut the mail ain't in the winter time..
WINDOWS:	Whut to shut when it's cold outside..
SCREEN:	Whut to shut when it's blackfly season..
BYTE:	Whut dem dang flies do..
CHIP:	Munchies fer the TV..
MICRO CHIP:	Whut's in the bottom of the munchie bag..
MODEM:	Wha'cha done to the hay fields..
DOT MATRIX:	Old Dan Matrix's wife..
LAP TOP:	Whar the kitty sleeps..
KEYBOARD:	Whar ya hang the dang truck key..
SOFTWARE:	Them dang plastic forks and knives..
MOUSE:	What eats the grain in the barn..
MAINFRAME:	Holds up the barn ruf..
PORT:	Fancy city folk wine..
ENTER:	Notherner talk fer C'mon in y'all..

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### More Internet Sites

Master directory for all USDA Forest Service Forest Insect and Disease Leaflets	<a href="http://www.fs.fed.us/r6/nr/fid/fidtabl.htm">http://www.fs.fed.us/r6/nr/fid/fidtabl.htm</a>
C&P Press database of current pesticide labels and MSDSs	<a href="http://www.greenbook.net">http://www.greenbook.net</a>
USDA database of important fungi (>650,000 specimens)      databaseframe.cfm	<a href="http://nt.ars-grin.gov/fungalatabases/">http://nt.ars-grin.gov/fungalatabases/</a>

## More Announcements

### Change in Price of Roundup®

(from the Chemically Speaking, Nov. 98; Farm Chemicals; October 1998)

Monsanto has announced that they are going to drop the price of Roundup (agricultural formulations only) sold in the U.S. by an additional \$6 to \$10 per gallon, in tandem with an increase in the technology fee for Roundup Ready Soybeans from \$5 to \$6.50 per bag.

### A Request to Modify the Guthion® Label

(from the Chemically Speaking, Nov. 98; Federal Register; Sept. 30, 1998)

The following is a registrants' request to EPA to amend certain pesticide registrations by deleting certain uses. Users who desire continued use of these registrations need to contact the registrant by March 29, 1999. The Registrant of these materials have requested the following uses be DELETED from the label:

Guthion 2L, 2S, 50WP Crop Insecticide, 50WP Insecticide, and 3 Flowable (azinphos-methyl), Bayer Corp. is deleting beans (succulent), **slash pine**, pasture grasses, grass mixture, peas, tobacco, kiwi, apricot, oats, artichoke, clover, soybeans, barley, beans (dry), pomegranate, and wheat.

### 25th Anniversary of the East Texas Forest Entomology Seminar

In case you haven't heard, the East Texas Forest Entomology Seminar will be celebrating its 25th Anniversary on April 21-23, 1999. All members of the WGFPMC are invited to attend, so mark your calendars.

Although the agenda has yet to be finalized, we plan to follow the schedule outlined below:

Wednesday, April 21

4:00 PM - 10:00 PM

Reception and crawfish boil at Kurth Lake Lodge (between Lufkin and Nacogdoches)

Thursday, April 22

8:00 AM - 12:00 noon

Invited talks at Stephen F. Austin State University, Nacogdoches

1:00 PM - 5:00 PM

Selection of field trips or Frontalis Cup Golf Tournament

Friday, April 23

8:00 AM - 12:00 noon

Invited talks at Stephen F. Austin State University, Nacogdoches

12:00 noon

Adjourn (possibly following a catered lunch)

We hope to contact all 480 people who have attended the seminar since it began in 1973 and encourage them to attend. If you wish to attend or if you know of anyone else that may be interested in returning for this grand event or attending for the first time, please contact Ron Billings by phone at 409/639-8170 or e-mail at [tfs.pcs@inu.net](mailto:tfs.pcs@inu.net) and provide your/their e-mail or mailing address so that we can make sure you/they receive future announcements.

# WGFP MC Executive and Contact Member Representatives in 1999

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