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The Texas A&M University System

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# Texas Pecan Pest Management Newsletter



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## General

This is the first issue of the Texas Pecan Pest Management Newsletter for 1995. This letter will be written about every 2 to 3 weeks from April through September. The Texas Pecan Pest Management Newsletter will contain current insect and disease summaries, upcoming events and short summaries of county situations.

From April through mid June a pecan nut casebearer prediction model will accompany each newsletter. The prediction model is a tool to assist you in determining when to scout for casebearer eggs. It is not intended as an automatic spray date.

The author also welcomes any comments or suggestions on topics you would like to have discussed. I can be reached at P.O. Box 2150, Bryan, TX 77806-2150.

## Insects

### Phylloxera

During May and June many producers will notice swellings on pecan stems and foliage. These galls or knots can be caused by several species of an insect called phylloxera. Of the five species of phylloxera that are associated with pecan the pecan stem phylloxera *Phylloxera devastatrix*

is the most damaging. This species attacks the woody portion of the new growth which can include the stems, nutlets, leaf petioles, leaf mid rib and even the catkins. Heavy infestations by this species limits production and stresses the tree.

The most effective time to control phylloxera is after budbreak with an insecticide. Treatments should only be applied to trees that had galls the previous season. I feel the best time to apply an insecticide is when the new growth is 2 to 3 inches in length.

Insecticides and rates per 100 gallons that are recommended for control are: chlorpyrifos (Lorsban® 4E @ 1 quart. Lorsban® 50W @ 1 pound) endosulfan (Thiodan® 3EC @ 0.66-1.0 quarts, Thiodan® 50W @ 1-1.5 pounds) malathion 57% EC @ 1.2 pints. Homeowners may use 2 tsp. per gallon.

Controlling phylloxera is not only important in reducing mid season defoliation and crop loss, but it indirectly affects hickory shuckworm populations.

Phylloxera galls, especially stem phylloxera are alternate feeding sites for shuckworm. The availability of early season feeding sites helps boost early

season populations.

### Pecan Nut Casebearer

During 1995 a new pecan nut casebearer pheromone will be tested at about 30 sites around Texas. Sites range from Brownfield to Wesleco and El Paso to Longview. At this point the pheromone is still experimental and is not commercially available. Results from a trial last year in El Paso looked very good.

### Asian Ambrosia Beetle

During the past couple of years I have written a few articles about this insect. This beetle which is active during the spring attacks the trunk of and scaffold limbs of woody ornamentals, fruit and pecan trees.

The female beetle initiates the attack and as she bores into a host tree to form her brood galleries she pushes out frass and boring material. This mixture tends to stick together and an infested tree will look like it has several toothpick like tubes sticking out of the trunk.

At this time this insect has only been reported from east Texas and along the coast to about Victoria county.

This insect seems to be most



active in the spring but can be active all season. I have already had a few calls of infestations on Bradford pears, peaches and cherry.

The only control measure that is recommended at this time is to cut and burn the infest host plant and treat the surrounding trees with an insecticide.

If anyone observes this type of damage please contact me or your local county Extension agent.

## Disease

The early application of a fungicide after budbreak is important for controlling pecan scab. Fungicides and zinc can be tank mixed.

Fungicides labeled for pecan include benomyl (Benlate®); dodine (Syllit®) propiconazole (Orbit® 3.6EC); thiphanate methyl (Topsin-M®); triphenyl tin hydroxide (Super Tin®); Ziram ; copper sulfate (Basicop®).

Super Tin® and Orbit® require a cab on the tractor when spraying.

## Pecan Press Article

During the year I write a monthly article for "The Pecan Press". Starting with this issue I will include the Pecan Press article where space permits. For the March issue I addressed pest management problems associated with organic pecan production.

## Organic Pecan Production

Occasionally I receive inquiries from producers that are interested in producing pecans organically. There are some organically certified orchards in Texas so it can be done, but there are several

obstacles that have to be addressed if this type of production is pursued.

The Texas Department of Agriculture has an Organic Production Certification Program. To become certified as an organic producer, the orchard or the portion of the orchard that a producer wishes to certify must go through a three year transition period. During this period no restricted material may be applied to the orchard. A list of materials can be obtained from the Texas Department of Agriculture which outlines materials or methods that are allowed, allowed with restrictions or that are prohibited.

Materials that are allowed may be used without restrictions for production, processing or handling by persons certified by TDA or an accredited agent. Examples of some allowed materials or practices are: *Bacillus thuringiensis* insecticides, beneficial organisms, dormant oil, mechanical and cultural controls, pheromones and traps. Materials allowed with restrictions may vary according to regional practices, specific processing or handling needs. Examples of some of these materials include: Bordeaux mixes, botanical insecticides, neem extracts, pyrethrums, rotenone and sulfates of zinc and iron. Examples of some prohibited materials include synthetic insecticides, fungicides and herbicides, nicotine sulfate, nitrates, nitrites and urea.

There are several management obstacles that will have to be addressed in an organic program. For this column I will only address practices that are available for managing insects and disease.

I think the three biggest pest management problems for organic production are pecan scab, pecan weevil and hickory shuckworm. Two of these problems, pecan scab and pecan weevil could be eliminated by geographic location alone. In Texas, pecans produced in the southwest and west, out of the range of the pecan weevil and where scab is not a problem would have an advantage. Producers in other regions will have to utilize other control measures.

The following are some management options that are available for insects and disease problems.

**Scale and Phylloxera:** Dormant oil applied prior to budbreak can help reduce populations of phylloxera and scale.

**Pecan Nut Casebearer:** Insecticides containing *Bacillus thuringiensis* have been effective in several tests and have recently been added to the Texas pecan insect control guide. Currently Javelin®WG and Dipel®ES and ESNT are labeled for casebearer in Texas. *Trichogramma* wasps which are egg parasites on many insect species are commercially available from most beneficial insect suppliers. It is important that the correct species (*Trichogramma minutum*) be used.

**Yellow/Black Pecan Aphids:** Populations of beneficial insects such as lacewings, lady beetle and syrphid flies can be increased in an orchard by interplanting winter legume cover crops. Lacewings and lady beetles are commercially available from many beneficial insect suppliers. Lacewings can be purchased either as adults or



as eggs. Neem products and insecticidal soaps used as foliar sprays are two additional options.

**Fall webworms/ Walnut caterpillars:** There are several insecticides containing *Bacillus thuringiensis* that are labeled for these insects and they are very effective if applied when the larvae are small.

**Stink Bugs:** Trap crops planted outside the required 50 foot border could be used to draw stink bugs away from pecans where they could be treated with synthetic insecticides.

**Pecan Weevil:** Traps, sticky barriers on tree trunks, early harvest to physically remove weevil larvae from the orchard. Also, providing habitat (bird houses or nesting boxes) in some orchards could help attract insectivorous birds.

**Hickory shuckworm:** Two products I found that include shuckworm on the label are: Neemix® (W.R. Grace & Co.), and Pyrenone® (Fairfield America Corporation).

**Pecan Scab:** The first step in scab management is to start with proper varieties and tree spacing to allow adequate air movement. One copper sulfate fungicide, Basicop® (Griffin) is labeled for organic production.

If additional information is needed on what is allowed in an organic program or how to become certified you can contact:

The Texas Department of Agriculture  
Organic Certification Program  
Regulatory Programs Division  
P.O. Box 12847

Austin, TX 78711  
PH: 512-475-1641

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### Upcoming Meetings

**April 11**  
San Saba County Field Day  
Roy Walston - CEA  
915-372-5416

**April 19**  
Brown County  
Kerry Shropshire - CEA  
915-646-0386

**April 24**  
Grimes County  
Shaun McGowan - CEA  
409-825-3495

**April 26**  
Lee County  
Billy Gillum - CEA  
409-542-2753

**April 27**  
Falls County  
817-883-2526

**April 28**  
Fayette, Colorado and Wharton  
combined meeting  
Larry Nickel - CEA  
409-968-5831  
Bernard Mitchell - CEA  
409-532-3310

**May 2**  
Brazoria County  
Waverly Jefferson  
409-849-5711

**May 4**  
Guadalupe County  
Gus Person  
210-379-1972

**May 6**  
Washington County  
Spencer Tanksley  
409-277-6200

**May 11**  
Burnet County  
Wade Hibler  
512-756-5420

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