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TEXAS AGRICULTURAL  
EXTENSION SERVICE

*Bill Ree*

Bill Ree, Extension Pest Management- Pecans  
Jerral D. Johnson, Extension Plant Pathologist  
George Ray McEachern, Extension Horticulturist  
Charles Cole, Extension Entomologist

# Texas Pecan Pest Management Newsletter



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## General

Weather conditions across the state during mid to late June were to variable to generalize. Several areas of the state did receive excess rain during June which resulted in some flooding and problems with scab. Currently, hot, dry, windy conditions have helped dry up many areas and eased the scab pressure.

Crop Reports from individual states still point to a big crop. Crop reports from individual states and Mexico are listed at the end of this newsletter.

## Insects

**Pecan nut casebearer:** Infestations from first generation were light across most of the state, but I have heard several comments from producers that they have seen more damage than what they anticipated. I also heard from a producer in the northern part of the state that he observed a wide range of larval development during mid June.

Second generation casebearer has been observed as far north as Taylor in central Texas. In an orchard in Taylor scouted on July 2, eggs and entry were observed. At this particular orchard, eggs

were found on the tip and at the base of nutlets. On clusters where eggs were found at the base of the nutlets, the base of the nutlets were touching. Treatment threshold for the second generation is 2%, but crop loads should also be considered. Larvae of the second generation require fewer nutlets, usually one or two, for development.

**Spittle bugs:** I am seeing several orchards with spittle bug activity. The amount of activity has ranged from very light to a reported 30% cluster infestation in San Saba county. The nymphs or immature stage of the spittle bug produce the white frothy masses. These insects have a piercing/sucking mouth part and can cause some nutlets to shed or terminal die back. Treatment for spittle bugs should be considered when 20% or more of the clusters have spittle masses. You should also consider the size of the spittle masses. Control when spittle masses are large may not be satisfactory.

**Pecan weevil:** A reminder that traps to monitor adult pecan weevil emergence should be in place toward the end of this month. There are several types of adult monitoring methods a producers can use (trunk bands,

knock down sprays, limb jarring), but the wire cone traps are considered the most effective. Two other types of traps, a trunk trap and a single trap used with painting tree trunks white are currently being evaluated.

### Beneficials - The Parasites

In each of the last 11 issues I have had a short discussion on a different beneficial. All beneficials discussed to date have been predators, but starting with this issue I will discuss another group - the parasites.

Parasites are not as obvious or as well known as the predators, but they do play an important role in controlling a wide range of pests. More than 25 different species of parasites have been reared from pecan nut casebearer and hickory shuckworm.

Some parasites are host specific while others may attack a wide range of hosts. Most parasites do not have common names and will be referred to by their scientific name.

*Aphelinus perpallidus* - *A. perpallidus* is a very tiny wasp that parasites pecan aphids. Parasitism occurs when a female (mated or unmated) deposits an

egg inside the body of an aphid.

Offspring from mated females can be either males or females, whereas unmated females will produce only males.

The parasite egg hatches and the emerging larvae feeds inside the aphid host. Parasitized aphids eventually turn black and adhere to the foliage of stems. After the larvae has completed its development it will pupate within the host body. By this time the host aphid has turned black. After pupation, the adult wasp exits through a hole that is cut in the abdominal portion of the aphid mummy. Figure 1 shows an example of an *Aphelinus* adult emerging from an aphid host.

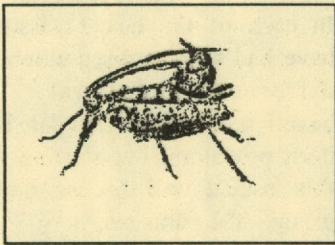


Fig. 1. Adult *Aphelinus* sp. emerging from aphid mummy,

*A. perpallidus* is the primary parasite of pecan aphids and in studies conducted in west Texas indicates that it has a moderate impact on yellow aphid populations.

Aphid mummies containing *A. perpallidus* are black and should not be confused with the black pecan aphid.

## Disease

**Pecan scab:** With hot drier conditions in much of the state this may be a time when different fungicides can be rotated into a

scab control program. Syllit<sup>®</sup>, which use to be called Cyprex, or Ziram<sup>®</sup> are two possible fungicides that could be rotated into a program. Syllit<sup>®</sup> does have some phytotoxic problems on some varieties and the label should be consulted before application. Ziram<sup>®</sup> can cause some skin irritation and protective measures should be followed.

**Powdery mildew:** Pecans infected with powdery mildew will appear to be covered with a white, powdery material. This fungus develops only on the outside of the shuck and no yield loss can be attributed to this disease and no control is needed. This fungus can develop at low humidity and becomes apparent during the mid-summer.

**Stem end blight:** Stem end blight can be controlled with the application of Benlate or Topsin M at the initiation of the water stage and a second application 10 days later. The time of occurrence of the stage is quite variable across the state and each orchard and or variety will need to be checked.

## Leaf Samples

A reminder that July is the time to collect leaf samples. Leaf sampling is important in evaluating tree health and your zinc program.

Leaf samples should be taken about half way up on the tree or as high as practical. Select a leaf that is in the middle of the current seasons growth and select two leaflets from the mid section of the leaf.

All four sides of a tree should be sampled and a complete sample

should contain at least 60 leaflets. Separate samples should be taken from different soil types or areas receiving different management practices.

Leaf samples should be collected in the early part of the week and placed in a poly bag to keep them from drying out. Leaflets should be free of moisture when placed in the bag. Samples need to arrive at the lab in a fresh pliable condition so they can be washed prior to testing.

Samples should be sent to:  
Soil Testing Lab  
Texas A&M University  
College Station, Texas 77843

There is a \$15 dollar charge per sample.

## Yesterday

The eight annual meeting of the Texas Pecan Growers Association was held July 10-12, 1928 in San Saba. During this meeting Dr. S.W. Bilsing presented a paper on "Handling Termites In Young Pecan Orchards"

This subject was discussed because of the considerable amount of damage incurred by several nurserymen. In one case a young nursery was damaged to the amount of a thousand dollars.

Dr. Bilsing commented that "anyone who is intending to plant a nursery or set out a young pecan orchard should have a knowledge of the habits of termites, white ants or wood lice as they are often called. The proper time to handle this question is before the nursery is planted or the orchard is set out".

During the presentation a

description of the different casts and their different functions were given.

As a preventative measure it was recommended that at the nursery or orchard site that it was "important to remove all stumps, logs, pieces of wood, cotton stalks, etc".

"However, if a nursery or orchard has become infested it becomes necessary to use other methods of control. The method which has been used most effectively is the use of calcium cyanide. This material was sold under the name of Cyanogas and Calcyanide. For young infested trees, where the top leaves were turning yellow, it was recommended that a small hole 6 of 8 inches deep be made beside the tree with a hoe and place a half teaspoon of calcium cyanide, depending on the size of tree. The exposure of the calcium cyanide to the air and moisture in the soil forms hydrocyanic acid gas which permeates the spaces between the soil particles and kills all of the termites in the vicinity".

It was also stated that "there may be many outlying colonies scattered about the nursery in the summer which migrate to central localities in cold weather. These central locations are usually stumps or old roots. On this account it has been practical to dig a trench around old stumps in late fall or early spring, then apply a ring of cyanide in the trench and cover with loose soil. If two or three such applications are made the greater part of the infestation will be destroyed. the stumps should be removed entirely and burned before the tree growth begins. Through these methods termite damage has been greatly reduced and almost

eliminated where it has been tried".

## Around the State

**Anderson County** - Aphids are very light. Approximately 10 inches of rain was recorded during June which has cause some scab problems. Good crop to date.

**Burleson County** - 2% second generation casebearer observed on July 1. Blacklight catches of adult casebearer moths has decreased over the last week.

**Dewitt County** - 2 percent second generation casebearer in Cuero and 10 percent in Yorktown on July 1.

**Fayette County** - County receive 5 to 11 inches of rain during June. Crop is holding but about a 50% drop of Desirable was reported from one orchard.

**Gillespie County** - Very little scab. Estimated July 10-15 for second generation casebearer. Area is getting dry.

**Grayson County** - First generation casebearer was very light. Good set on both improved and natives. Good soil moisture to date.

**Navarro County** - Overall first generation casebearer damage was light but also variable. Crop is still good. Rainfall in the county last month ranged from 6 inches to less than 1 inch.

**San Saba County** - Good crop and soil moisture as of the end of June. Spittle bugs reported infesting 30% of the clusters in one orchard.

**Tom Green County** - Area is short on moisture but very little disease problems. Some first generation casebearer damage reported as high as 20%.

**Wichita County** - Few producers are reporting more first generation casebearer damage than anticipated. Crop is moderate and some scab problems have developed with the high humidity. Area has received approximately 18 inches of rain as of the end of June. Average annual rainfall is 28 inches.

## State Meetings

### July 18-21

Texas Pecan Growers  
Sheraton Park Central  
Dallas, TX  
Cindy Wise 409-846-3285

### September 2

Florida Pecan Growers  
Monticello, FL

### September 16-17

Alabama Pecan Growers  
Gulf Coast Substation  
Fairhope, AL

## 1993 Crop Report

Alabama	27.5 million
AZ/Border States	22.0 million
Arkansas	3.3 million
California	3.3 million
Florida	4.4 million
Georgia	121.0 million
Louisiana	22.0 million
Mississippi	11.0 million
New Mexico	33.0 million
No./So.Carolina	11.0 million
Oklahoma	20.9 million
Texas	45.0 million

### Mexico

Chihuahua	40.0 million
Coahuila	6.5 million
Sonora	4.0 million

Nuevo Leon	1.0 million
Durango	2.0 million
Hildago	2.0 million
Queretar	0.5 million
Jalisco	0.5 million
Guanajuato	0.5 million
San Luis Potosi	0.3 million
Oaxaca	0.15 million
Tamaulipas	0.05 million

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