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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 Situation

Rain, rain, and more rain!

I'm sure some place in Texas may need a rain but I sure don't know where that would be. On June 2 during one of the national morning TV programs the weatherman stated that it had rained in Texas somewhere for 18 straight days. Sure hope there will be some left for July and August.

In spite of the weather the improved varieties in Texas still look pretty good. There are some areas in the northern part of the state that show damage from the October 31, 1991 freeze. In some northern counties the improved varieties are a little weak because of the freeze

Insects

Pecan nut casebearer: From orchards I have seen first generation casebearer infestations were generally light. In several orchards where insecticide tests were being conducted the untreated checks had less than five percent damage.

Several tests using products containing *Bacillus thuringiensis* were applied this season with favorable results. When all the

data is compiled I will give a more detailed report.

Watch for second generation casebearer approximately six weeks after the first generation. There is no set rule that if the first generation was light the second generation will be light or a heavy first generation will result in a heavy second generation.

Beneficial Insects: Starting with this newsletter I will provide a short discussion of a beneficial insect. Because of the number of questions I have had on wheel bug nymphs I will begin with this insect, Fig. 1.

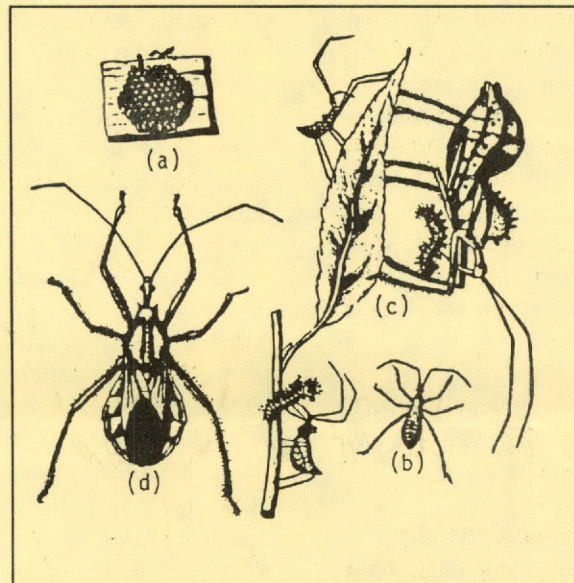


Fig. 1: Wheel Bug - *Arilus cristatus* (L.) (a) egg cluster, (b) nymphs, (c & d) adult.

Nymphs or the immature stages of the wheel bug are quite common in pecan at this time of year and generally attract a lot of attention. The information I was able to locate on this insect came from a 1946 Texas A&M thesis by Raymond Underhill on "Life History and Habits of *Arilus cristatus* (L.)"

Eggs of this insect are usually laid in clusters of 50 to 60 but can be as few as 6 or 7, or as many as 130. There are 5 nymphal instars and only one generation per year. The length of the nymphal stage can range from 53 to 138 days averaging around 85 days. The length of an instar period is determined more so on the available food supply rather than environmental conditions.

The first instar nymphs have a black thorax, red swollen abdomens and long slender legs. later nymphal instars will turn a gray color and wing pads will begin to appear during the 3rd instar.

Wheel bugs feed primarily upon insects which are soft bodied and easily punctured by its proboscis. The first and second instars will feed almost entirely on aphids and small leafhoppers. During the 3rd and 4th instars nymphs continue to feed on aphids and leafhoppers but also feed on small caterpillars. In the latter part of the 4th and during the 5th instar they will feed on grasshopper nymphs and caterpillars such as fall webworms.

The adult wheel bug is easy to identify by the cog shaped structure on its back.

A word of caution needs to be added here. Although these insects are slow moving and nonaggressive they can inflict very painful bites if mishandled. The insect will puncture the skin with its proboscis and inject an anticoagulin which is used for paralyzing its prey and to prevent the blood from coagulating. The bite is described as more painful than that of a bee and the wound site may be sore for more than 10

days.

Spittlebugs: Spittlebug is a term applied to a group of insects in which the immature stages cover themselves with a white frothy mass. To produce the spittle, nymphs excrete a fluid from the alimentary canal and with some caudal appendages inject air bubbles into the fluid. The spittle mass provides the nymphs with protection from predators and a moist environment in which to develop. The adult spittlebug does not produce any spittle.

The white spittle masses produced by the pecan spittlebug *Clastoptera achatina* Germar or the alder spittlebug *C. obtusa* (Say) can be found on small nutlets and terminals in most orchards at this time. Although this insect is quite common insecticide treatments for this insect are rarely needed.

Fall webworm: The unsightly webs produced by the fall webworm are becoming quite common in many urban areas. This insect is native to North America and is known to feed on at least 88 species of trees, shrubs, and ornamentals. Unfortunately, pecan is one of its favorite hosts.

Eggs of the fall webworm are deposited by the female moths on the undersides of the leaves in clusters. After depositing the eggs, the female moth covers the egg mass with hairs from her abdomen which gives the egg cluster a fuzzy appearance.

This insect is more of a nuisance because of the unsightly webs, but heavy populations can cause significant defoliation and will need to be controlled. Where

practical webs can be pruned out and destroyed. Where insecticides are needed enough pressure must be used to penetrate the web for the larvae feed with in the webbing. Insecticides recommended for fall webworm are carbaryl (Sevin®), malathion and products containing *Bacillus thuringiensis* var. *Kurstaki*.

Diseases

Pecan scab is becoming a problem in many areas on susceptible varieties. As I have stated in the previous newsletter with the high potential for scab the use of Orbit® at the higher labeled rate should be used. The use of Orbit will require an enclosed cab for the tractor.

For the home owner the use of benomyl at 1/2 to 1 tablespoon per gallon is recommended.

Around The State

Anderson County

Native crop is light and improved varieties overall are fair. Phylloxera damage was heavy and pecan nut casebearer was light. Scab is showing up on susceptible varieties such as Delmus. County has received at least 25 inches of rain to date.

DeWitt County

Native crop is light and improved varieties are moderate or better than the last couple of years. Phylloxera infestations were heavy. Scab is showing up on some varieties. Plenty of moisture,

El Paso County

Crop is reported to be fair to good. Western had an early pollen shed and those varieties

depending on Western pollen did not pollinate very well. Pecan nut casebearer entry was reported in town on 5/22 but has not been reported from any commercial orchard - yet. Cool temperatures were recorded on May 28 - 48 in Odessa, 42 in Alpine and 56 in El Paso.

Navarro County

Rain, Rain, Rain. 4 to 9 inches during the past two weeks. Native and improved crop is light. Improved varieties suffered freeze damage from last October 31 freeze. Phylloxera infestations were heavy in town. Pecan nut casebearer infestations seem to be light.

Pecos County

Good crop with plenty of moisture. Lots of early season hickory shuckworm activity reported as of May 29. First and second instar pecan nut casebearer were found on 5/26.

Wharton County

Natives are light and improved varieties are fair. Phylloxera infestations were heavy and pecan nut casebearer was light. Scab is becoming a problem on some varieties.

Wichita/Clay Counties

Natives are light to moderate and improved varieties have a moderate crop. Pecan nut casebearer eggs were observed on 5/26 with treatments expected to have gone out around 6/1. No significant disease problems reported at this time.

Upcoming Meetings

June 17-18

Louisiana/Mississippi Pecan Growers Assoc. Annual Conference
Holiday Inn Downtown
Alexandria, LA
Freddie Rasberry
601-325-1681

June 21-23

Oklahoma Pecan Growers Annual Conference
Lake Texoma Lodge
Lake Texoma, OK
Bill Ihle
(918) 367-5529

July 12-15

Texas Pecan Growers Annual Conference
Seguine, TX
Texas Pecan Growers Association
(409) 846-3285

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