



Agricultural Experiment Station
Pecan Research-Extension Station
10300 Harts Island Road (71115)
Post Office Box 5519
Shreveport, Louisiana 71135-5519
(318)797-8034
Fax: (318)676-7371
Web Site: www.lsuagcenter.com



IN A NUTSHELL

Newsletter

EXTENSION PROGRAMS
Agriculture and Forestry
Community Leadership
Economic Development
Environmental Sciences
Family and Consumer Sciences
4-H Youth Development
Natural Resources

March 28, 2008

Number 2

Pecan Phylloxera

A large number of pecan phylloxera crawlers were observed on pecan buds in an orchard near Winnsboro this week. Examinations of several orchards near Cloutierville that had severe infestations of phylloxera last year found only a trace number of crawlers. Phylloxera crawlers are normally most prevalent the first couple of weeks in April. Last year was unusual in that large numbers of phylloxera were observed in late March and also considerable numbers were observed through April.

Infestations of pecan phylloxera do not occur every year, so it is very important to inspect new growth in the spring to determine if the insects are present. Monitoring for pecan phylloxera should begin at the first signs of bud break and continue through mid-April. Because of their small size, a 10X or higher hand lens or magnifying glass should be used. Pecan cultivars that are commonly infested include Schley, Success, Sioux, Stuart, and Desirable. Pictures of phylloxera can be found at the following web site:
http://www.lsuagcenter.com/en/our_offices/research_stations/Pecan/Features/Entomology/Pecan+Phylloxera.htm

Insecticides are still the most effective way of controlling infestations of pecan phylloxera. Insecticides should be applied when approximately ½ to ¾ inches of new growth begins to appear. Usually, this will be before or just as the leaves are beginning to unfold. A second application, about 7-10 days later, might be needed depending on the severity of the infestation. Treat only those trees previously infested and those adjacent to them. Those cultivars that are not susceptible to pecan phylloxera do not need to be sprayed.

May Beetles (June Bugs)

May beetles normally emerge in late April and May. However May beetles were very abundant during late March in a number of orchards last year. A few May beetles were observed around lights in Shreveport this week. This suggests that May beetles could be early again this year. A sign of May beetles is the presence of fresh cut leaves under trees.

May beetles primarily damage young pecan trees surrounded by turf; however some trees more than 50 feet tall were severely defoliated last year. The beetles spend the day in turf near the trees and only come out at night. They can not be seen during the day time. Watching for beetles near lights and checking trees after dark will usually detect the presence of May beetles. Dr. Hall suggests that Sevin, Lorsban or Malathion be used for May beetle control. Spraying the grass around the trees is often a good way to control the beetles as well as spraying the trees.

Scab Control in the Spring

For pecan growers spring is the time to start efforts to control scab disease for the entire growing season. It is critical to avoid early season infection of nuts, because disease can increase very rapidly in the right environmental conditions. Last year's heavy rains in June and July allowed scab disease to build rapidly and prevented proper scab control in many orchards.

One of the primary determinants of the severity of scab disease development is rainfall. Amount, frequency, and time of rainfall all have important effects on the development of scab. A single scab lesion left from the previous year can produce thousands of spores as the fungus becomes active in the spring. Spores can infect growing leaf and stem tissue when it stays wet for several hours following rainfall. Thus, a small amount of rain that occurs late in the evening, at night, or with heavy cloud cover may result in more scab spore germination than a larger amount of rainfall that occurs during midday and quickly dries from pecan tissue surfaces. Factors that reduce drying time such as air movement, good tree spacing, and orchard site elevation can help reduce the amount of infection that occurs during a rainfall period.

To prevent infection, fungicides have to be on the trees **before** a rainfall occurs. Pecan scab control is preventative control. There is often concern about rainfall removing fungicide from trees. It is true that some wash-off can occur with some fungicides (many fungicides now are absorbed into tissue and can't be washed-off) but enough usually stays on to prevent infection if the tissue was well covered before the rain and it has not been more than two to three weeks since the application. New tissue grown since last application is not protected. The approach of trying to apply fungicide following a rain period to stop infection will usually not work. It is difficult to get fungicide applied in time to stop an infection after spores have begun to germinate in wet weather.

Even though preventative application of fungicide is necessary for successful scab control and early disease control is important. I think that we sometimes tend to spray too much in the early spring. Just as frequent rainfall can quickly result in a severe level of

scab, no rainfall means no scab disease. This is something we can take advantage of, especially if the orchard cultivars are not extremely susceptible to scab. In most years and on most of our common cultivars, the level of scab observed on foliage during April and May is limited. The primary goal is to keep scab off of the nuts which are not present until mid May. Depending on the orchard location, cultivars, disease history, and rainfall pattern, it may be possible to make just one preventative fungicide application before pollination and save most of the fungicide for protection of the nuts. It is of course impossible to put into print exactly when any fungicide application should be made or delayed because of all the variables that affect scab development. Because of this, fungicide spray schedules for pecan scab control are written on the conservative side and it is often possible to adjust these schedules to better fit a particular orchard situation.

All of the fungicides in the list below do a good job of scab control. Some of the fungicide groups are more subject to development of pathogen resistance problems than other groups. Fungicides in Groups 3 and 11 and those with products from these two groups are particularly subject to resistance occurrence. It may be best to use fungicides in these groups when there is a low level of disease in the orchard such as early in the season or in the summer if little disease development has occurred.

Pecan Fungicides List By Activity Group*		
FRAC GROUP	PRODUCT	RATE / ACRE
Group 30 Organotin	Agri-Tin	7.5 oz
	Super-Tin	7.5 oz
Group 3 DMIs	Enable	8 fl oz
	Propimax	6-8 fl oz
	Orbit	6-8 fl oz
	Bumper	6-8 fl oz
Group M Guanidine Acetate (Dodine)	Syllit	2 lbs
	Elast	51 fl oz
Group 11 Strobilurin	Abound	9.5 fl oz
	Sovran	3.2 oz
	Headline	7.0 fl oz
Group 3 & 30 DMI + Organotin	Orbit/Super Tin	4 oz & 3.75 oz
	Enable/Agri-Tin	1.3 oz & 3.74 oz
Group 6: Mix of Groups 3 & 11	Stratego	10 fl oz
	Quilt	14 fl oz

*To obtain the best control and reduce the chances of pathogen resistance, use a rotation of fungicides from different FRAC Activity Groups, or a mixture of fungicides from different groups. The Fungicide Resistance Action Committee (FRAC) groups fungicides by their mode of biological activity. Development of resistance to one fungicide in a group generally means a pathogen will be resistance to all of the fungicides in that group.

Randy Sanderlin
LSU AgCenter Pecan Research-Extension Station
rsanderlin@agctr.lsu.edu

Pecan Seminar

A pecan seminar will be held at Company Farm at Baskin, Louisiana, Saturday April 5 from 9:00 a.m. – 2:30 p.m. at Company Farm at Baskin, Louisiana. Company Farm is located one mile south of Hwy 857 on Company Farm Road which is located 1.5 miles east of Baskin.

Topics to be presented include: Pecan Varieties, Pecan Phylloxera & Other Insects and Fertilizer cost and Application in Young Orchards. Demonstrations in the afternoon include Trapping Phylloxera, Pruning Young Pecan Trees, Grafting Pecans, and Fertilizer Application.

Individuals attending the seminar need to contact Susan Wilson at (318)932-8912 or Gary Haggart (318)248-3400. This enables an accurate count for lunch being provided by Ouachita Fertilizer.

Insect Seasonal Occurrence

An insect seasonal occurrence chart is provided. The critical period for Root Borer and Carpenter worm refers to the time when adults are present. The less critical period refers to the time the larvae are boring inside tree roots and trunks and are difficult to control.

Sincerely,



John Pyzner
Associate Professor, Pecan-Fruit Extension Specialist
LSU Ag Center
Pecan Research-Extension Station
jpyzner@agcenter.lsu.edu



Issued in furtherance of Cooperative Extension work, Acts of congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.

Seasonal Occurrence of Pecan Insect and Mite Pests

Stage of Development:	D	BB	PO	NS	WS	SH	KD	SS	H	
PESTS	month:	March	April	May	June	July	August	Sept.	October	Nov.
Foliage Pests										
Shoot Curculio			---/////							
Saw Flies			////							
Leaf Casebearer			///-----							
Leaf Phylloxera			///--		----					
Tent Caterpillar			////////							
Yellow aphids			-----////////				//////////			
Leafminers					-----////////					
Black Aphids					-----		//////////			
Mites					-----		//////////			
Walnut Caterpillar				---/////			-----			
Fall Webworm				-----			---/////			
May Beetles			////////	-----						
Budmoth			////	-----						
Nut Pests										
Nut Curculio					-----////////		---			
Pecan Weevil							-----////////			
Nut Casebearer					-----////////		////			
Hickory Shuckworm							-----////////			
Spittlebug					-----///		-----////////			
Plant & Stink Bug							-----////////			
Pecan Phylloxera			////	-----						
Other Pests										
Twig Girdler								-----////////		
Root Borer					-----////////					
Carpenter worm					-----////////					

----- May be present ///// Most critical period (normally)
 D = Dormant BB = Bud Break PO = Pollination WS = Water Stage NS = Nut Swell
 SH = Shell Hardening KD = Kernel Development SS = Shuck Split H = Harvest