



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 22, 2007

Number 1

Pecan Seminar March 28

A pecan seminar presented by LSU AgCenter Pecan Research-Extension Station faculty will be held Wednesday March 28 from 9:30 a.m. - 12:15 p.m. at the Pecan Research-Extension Station in Shreveport.

Topics to be presented include: Pecan Nutrients, How They Interact by Charlie Graham; Fertilizer Applications by John Pyzner; Disease Control Update by Randy Sanderlin; Weed Control by John Pyzner; and Monitoring and Control of Pecan Phylloxera and Nut Casebearer by Mike Hall.

The Pecan Station is located at 10300 Harts Island Road, Shreveport, LA. It is located 6 miles south of LSU Shreveport just west of HWY 1. Look for the Pecan Station sign and the blue and white Shreveport/Bossier Port Water Tower near the station on HWY 1. For additional information contact the Pecan Station at (318)797-8034.

Fertilizing

Fertilizing with 100 units of nitrogen per acre is often used as a general pecan fertilizing recommendation. Actual fertility needs of an orchard can vary with soil type and tree production. Splitting a fertilizer application is a good idea if a large crop was produced the previous year. The first fertilizer application is normally made in March and a second application is made in May if a good nut crop is present. The second fertilizer application is omitted if a light crop is

present. Excess nitrogen application during an off year can encourage alternate bearing by encouraging excessive nut production next year. The cyclic nature of pecan production suggests that many orchards in Louisiana could have a light crop this year.

Pecan Phylloxera

High numbers of pecan phylloxera crawlers have been found in pecan orchards in Foreman, Arkansas and Cloutierville, Louisiana this week. Pecan bud development has not reached the stage for phylloxera feeding, however their presence in two widely separated areas suggests that scouting for phylloxera should begin immediately.

Pecan phylloxera are small aphid-like insects that form galls or knots on the leaf tissue, stems, catkins, and nuts. Severe infestations of pecan phylloxera have been reported to cause reductions in nut quality and quantity, premature defoliation, and dieback of the current seasons shoot growth. In addition to causing damage to the vegetative and fruiting structures of the tree, the galls also serve as host for a multitude of other insects, including the hickory shuckworm, *Cydia caryana* Fitch.

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, Stuart, and Desirable. Sioux has also been found to be susceptible.

Insecticides are still the most effective way of controlling infestations of pecan phylloxera. Insecticides should be applied when approximately $\frac{1}{2}$ to $\frac{3}{4}$ 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 not susceptible to pecan phylloxera do not need to be sprayed.

Suggested Insecticides to use for Controlling Pecan Phylloxera:

Lorsban 4E at 1.5 to 2.0 pt./acre

Provado 1.6F at 3.5 to 7.0 fl. oz./acre

Warrior at 2.56 to 5.12 fl. oz./acre

Centric 40WG at 2.0 to 2.5 oz./acre

Remember that the pH of the water being used for spraying should be between 5.0 and 6.5.

For further information on pecan phylloxera go to the Pecan Research-Extension Station website at www.lsuagcenter.com. There you can access illustrated fact sheets on many pecan insect pests, including pecan phylloxera, and an illustrated spray guide for control of pecan insects in Louisiana.

Mike Hall
LSU AgCenter Pecan Research-Extension Station
mhall@agctr.lsu.edu

2007 Pecan Show

The 2007 Louisiana State Pecan Show made an excellent exhibit at Ag Expo in Monroe with 99 entries from 24 yard and commercial growers from across the state. Entries included 33 named varieties and 22 native/seedlings.

The 1,318 show visitors became more knowledgeable about the pecan varieties grown in Louisiana and they learned what makes a quality pecan. Information about pecan culture, pest management, variety selection, recipes and health benefits were also provided.

Bill Beasley of Ferriday won Grand Champion In-shell Pecan and Best of Show with a Pawnee variety at the Louisiana State Pecan Show held at Ag Expo in Monroe. Mr. Beasley also had the Reserve Champion In-shell entry with a Forkert variety.

M. L. Mason of Rayville won Grand Champion Shelling Pecan with a Sioux variety. The Reserve Champion Shelling Pecan was an Elliott variety exhibited by Bill Beasley.

The Baptist Children's Home of Monroe exhibited the Grand Champion Native/Seedling Pecan with a small native designated C-1. Susan Wilson of Coushatta had the Reserve Champion Native/Seedling with a medium native designated YT1.

Novelty class winner for the smallest pecan was Nathan Allbritton of Coushatta. His native entry named Allbritton weighed in at 1,055 nuts per pound. The entry set a new record for the smallest pecan for the Louisiana State Pecan Show. Bob Williams of Newelton exhibited the largest pecan entry with a Podsednik variety weighing in at 27 nuts per pound.

The following entries are variety blue ribbon winners:

In-shell Division winners and pecan varieties: Natchitoches Pecans, Inc. of Cloutierville – Branch and Sumner; M. L. Mason – Cape Fear, Jackson and Mahan; Ben Littlepage of Colfax – Choctaw and Cooper; John Ainsworth of Winnsboro – Desirable; Betty Soignier of Bosco – Gloria Grande; Bill Beasley – Forkert, Nacono, Oconee and Pawnee; Bob Williams – Kiowa and Podsednik; Don Sonnier of Benton – Schley; and Killarney Farms of Shreveport – Stuart.

Shelling Division: Ben Littlepage – Melrose; M. L. Mason – Sioux; Bob Williams – Candy; Bill Beasley – Elliott; Killarney Farms – Pabst; The Company Farm, Inc. of Baskin – Caddo and Moreland; Hilary Langlois of Ventress – Gafford, Jenkins and Syrup Mill; Ray and David Soignier of Bosco – Houma; and Joe R. Musick of Lecompte – Creek.

Native/Seedling Division: M.L. Mason – Large Seedling (Atta Boy); Susan Wilson – Medium Native (YT1); and Louisiana Baptist Children's Home – Small Native (C-1).

Importance of 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 of near drought conditions

last year, scab disease pressure was at a low intensity and control was easy. However, because the disease can increase very rapidly, a low level of disease last year does not provide any insurance against rapid disease build up this year if rainfall is frequent in the spring.

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 is not protected). The approach of trying to apply fungicide following a rain period to stop infection will usually not work well. 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
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 Research-Extension Station Website

Please remember to check out the Pecan Research-Extension Station website. It contains pecan insect, disease and horticultural information as well as pecan links and information on station activities, pecan cultivars and various additional pecan topics. New information is added as it becomes available.

To download pecan insect fact sheets and the illustrated spray guide for control of pecan insects in Louisiana referenced above, go to www.lsuagcenter.com. When the AgCenter's homepage comes up, click on Research Stations under the heading 'Office Locator' in the upper right hand column. When the Research Station page comes up, scroll down to the list below the state map and click on Pecan. When the Pecan Station page comes up, click on Entomology under the heading 'Features' in the upper right column. On the Entomology page you will find fact sheets on pecan insect pests and the current spray guide.

The Pecan Research-Extension Station has recently added new content to their website. The new content is presented in a question and answer format and provides answers to frequently asked questions on horticulture, entomology and plant pathology topics. The questions can be accessed by clicking on Pecan FAQs under the 'Features' heading of the Pecan Research-Extension Station website.

Insecticide Chart

A pecan insecticide rating chart is provided with this issue of In A Nutshell. The chart is designed to provide information about likely effectiveness of particular insecticides on different insects. Ratings are based on insecticide tests, observations, and label information. The effectiveness of insecticides may vary at different locations. Insecticides will frequently lose effectiveness with time as insects develop resistance.

The chart lists restricted-entry intervals. This is the time interval workers must stay out of a sprayed area unless specified personal protective equipment is worn. The restricted- entry interval is usually given in hours or days. A pre-harvest interval is also given. This is the required time interval between the last insecticide application and harvest. It is usually given in days.

Always follow the label when using pesticides.

Sincerely,

A handwritten signature in black ink that reads "John Pyzner". The signature is written in a cursive style and is positioned to the left of a vertical red line.

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

2007 Ratings of Registered Pecan Insecticides

(Ratings are based on tests, observations, and label information. Effectiveness may vary at different locations.)

	Yellow aphids	Black aphids	Scorch mites	Green stinkbug	Brown stinkbug	Hickory shuckworm	Pecan nut casebearer	Pecan spittlebug	Fall webworm	Pecan phylloxera	Pecan weevils	Walnut caterpillar	Leaf-footed bug	Re-entry interval (REI)	Preharvest interval (PHI)
Lorsban 4E	P-M		P-M	P	P	G	G	G	L	G-E	P	G-E	P	24H	28D
Provado 1.6F	G	M-G	P	P	P	P	P	G	P	G-E	P	P	P	12H	7D _{ss}
Warrior	G-E	G-E	P	G	G	G	G	G	G	G-E	M	G	G	24H	14D
Centric 40WG	G	G	P			P	P		P	G	P	P		12H	14D
Imidan 70 W		G	P	M	M	G	G	G-E	M-G		M	G	M	24H	14D
Confirm 2F	P	P	P	P	P	G	G	P	G	P	P	G	P	4H	14D
Intrepid 2F	P	P	P	P	P	G	G	P	G	P	P	G	P	4H	14D
Spintor 2SC	P	P	P	P	P	G	G	P	G	P	P	G	P	4H	14D
Dimilin 2L	P	P	P	P	P	G	G	P	G	P	P	G	P	12H	28D
Mustang Max	G	G	P	G	P	G	G	G	G	G	M	G	G	12H	21D
Ammo 2.5 EC	G	G	P	G	P	G	G	G	G	G	P-M	G	G	12H	21D
Entrust	P	P	P	P	P	G	G	P	G	P	P	G	P	4H	14D
Kelthane MF	P	P	M-G	P	P	P	P	P	P	P	P	P	P	12H	7D
Vendex 50 WP	P	P	G	P	P	P	P	P	P	P	P	P	P	48H	14D

	Yellow aphids	Black aphids	Scorch mites	Green stinkbug	Brown stinkbug	Hickory shuckworm	Pecan nut casebearer	Pecan spittlebug	Fall webworm	Pecan phylloxera	Pecan weevils	Walnut caterpillar	Leaf-footed bug	Re-entry interval (REI)	Preharvest interval (PHI)
Savey 50 DF	P	P	G	P	P	P	P	P	P	P	P	P	P	12H	28D
Admire 2F	G	G	P	P	P	P	P	G	P	G	P	P	P	12H	7-15
Fulfill	G	G	P	P	P	P	P		P		P	P	P	12H	14D
Sevin 80S	P	P	P	P	P	G	G	P	G	G	E	G	P	12H	14D
Sevin XLR plus	P	P	P	P	P	G	G	P	G	G	E	G	P	12H	14D
Javelin WG	P	P	P	P	P	M	M	P	M	P	P	M	P	4H	
Dipel D F	P	P	P	P	P	M	M	P	M	P	P	M	P	4H	0D
PennCap-M	M	M	P	E	E	G					P		E	4D	SS
Impulse 1.6 fl.	G	M-G					G			G-E				12H	7D,SS
Proaxis	L	L				L	L	L		L	L			24H	14D
Asana	P-F	P-F	RS	G-E		E	E	G	E	E	G	E		12H	21D

E = Excellent control **G** = Good control **M** = Moderate control **P** = Poor control **Blank**=No information **SS**= Prior Shuck split
7-15 = Last application date **L** = Label use **RS** = Resurgence (makes situation worse)