



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

February 6, 2008

Number 1

Pecan Seminar February 28

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

Topics to be presented include: Fungicide: Activities and Choices by Randy Sanderlin; Pecan Insect Control by Mike Hall; Pecan Cultivars by John Pyzner; Fertilizer availability and use in Pecan Orchards by Charlie Graham; and Pros and Cons of Chicken litter Fertilization by Matt Stephens.

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

Prices of nitrogen and other fertilizers have been soaring. It is important to get the most for your fertilizer dollar. A split nitrogen application would probably be a good choice for orchards that are likely to have a light crop this year due to a large crop last year. Half of the nitrogen fertilizer should be applied in March and the second half applied in May if a good pecan crop develops. Eliminating the second half of the nitrogen application if a light crop is present can reduce production cost and also reduce the potential of a very large nut crop being produced the next year which often results in poorly filled nuts and severe alternate bearing in following years.

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. Traditionally 100 units of nitrogen per acre are applied when leaf samples indicate nitrogen levels of 2.5 % to 2.75%. For each 0.1% unit below 2.5% an additional 10 pounds of nitrogen is added per acre.

Ammonium nitrate has been the traditional nitrogen source for pecan orchards in Louisiana. It loses little nitrogen to the air under Louisiana conditions and has been easily obtained and has usually been competitive in price. Ammonium nitrate is 33 - 34% nitrogen. There have been some concerns about the availability of ammonium nitrate.

Urea (45-46% nitrogen), anhydrous ammonia (82% nitrogen), ammonium sulfate (21% nitrogen), legumes, and chicken litter are possible alternative nitrogen sources, however they have some disadvantages.

Urea can volatilize (lose nitrogen to the air) when applied to the soil surface if it is not incorporated by tillage or rainfall within a few days. Volatilization occurs most rapidly with higher soil temperatures, higher soil pH, surface plant residues and moist soils. Urea is best used before expected rainfall with soil temperatures below 70 degrees and soil pH below 6.5. Do not apply urea to wet soils.

Anhydrous ammonia is a compressed gas that has to be knifed below the soil surface. The soil must be moist enough to retain the gas but not wet enough to form cracks in the soil that allows the gas to escape. Knifing the ammonia into the soil can cut surface roots. The knifing operation also produces soft areas in the soil that can cause equipment to become stuck following rains.

Ammonium sulfate is best used on higher pH soils. The soil acidity produced by ammonium sulfate is three times the acidity produced by ammonium nitrate. It would take 535 pounds of pure calcium carbonate to neutralize the acidity produced by the ammonium sulfate used to supply 100 pounds of nitrogen per acre.

Pecan Phylloxera

The start of the growing season is just about here and for many growers, that means dealing with infestations of pecan phylloxera. 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 or not. 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 susceptible to phylloxera include Schley, Success, Stuart, and Desirable. Sioux and Sumner, two cultivars previously thought to be resistant to phylloxera, have recently been observed as having severe phylloxera infestations.

Insecticides are still the most effective way of controlling infestations of pecan phylloxera. Insecticides should be applied when approximately $\frac{1}{4}$ to $\frac{1}{2}$ inch of new growth begins to appear. Usually this will be just before 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.

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

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

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

Mike Hall

LSU AgCenter Pecan Research-Extension Station

e-mail: mhall@agctr.lsu.edu

2008 Pecan Show

The 2008 Louisiana State Pecan Show made an excellent exhibit at Ag Expo in West Monroe, January 18 and 19, with 99 entries from 19 yard and commercial growers from across the state. Entries included representatives from 28 named varieties and 29 native/seedlings.

Ag Expo had an attendance of approximately 7,500 which gave good exposure to the Pecan Show. Show visitors became more knowledgeable about pecan varieties, nut quality, culture, pest management, variety selection, recipes and health benefits. Pecan show blue ribbon winners will also be displayed at the SW Louisiana Garden Festival at Lake Charles in March and at the Pecan Producers of Louisiana Annual Meeting and the Louisiana Pecan Growers Association annual meeting both held in June.

Susan Wilson of Coushatta won Grand Champion In-shell Pecan and Best of Show with a Forkert variety at the Louisiana State Pecan Show. Bill Beasley of Ferriday had the Reserve Champion In-shell entry with a Pawnee variety.

Bill Beasley won Grand Champion Shelling Pecan with a Caddo variety. The Reserve Champion Shelling Pecan was an Elliott variety exhibited by Ben Littlepage of Colfax.

Susan Wilson exhibited the Grand Champion Native/Seedling Pecan with a small native designated RT3. Paul Laird of West Monroe had the Reserve Champion Native/Seedling with a Large Seedling designated L-1.

Novelty class winner for the smallest pecan was Nathan Allbritton of Coushatta. His native entry named Allbritton weighed in at 475 nuts per pound. Bob Williams of Newelton exhibited the largest pecan entry with a Podsednik variety weighing in at 34 nuts per pound.

The following entries are variety blue ribbon winners:

In-shell Division winners and pecan varieties: Natchitoches Pecans, Inc. of Cloutierville – Branch; Bill Beasley – Cape Fear, Desirable, Nacona and Pawnee; Stormi Adcox, Southern Belle Pecans, of Rayville – Jackson; David Soignier, Double S Farms & Orchards of Bosco – Sumner and Houma; Bob Williams – Kiowa, Podsednik and Schley; Susan Wilson – Creek, Forkert and Oconee; Paul Laird – Owens; Hilary Langlois of Ventress – P-Cou-2; and Gunter Mansford Farms of Tallulah – Stuart.

Shelling Division: Ben Littlepage – Elliott; Stormi Adcox – Sioux; Hilary Langlois – Moreland; Gunter Mansford Farms – Carmen; Bill Beasley – Caddo and Candy; and Natchitoches Pecan, Inc. – Melrose.

Native/Seedling Division: Paul Laird – Large Seedling (L-1); Hilary Langlois – Medium Native (Water Trough); and Susan Wilson – Small Native (RT3).

Grafting

Grafting wood should be cut in February before buds begin to swell. Cut scionwood and budwood from vigorous trees from desired varieties or seedlings. Use one or two year wood, 3/8 to 5/8 inch in diameter, straight and well developed (non-pithy). Cut scionwood into 6-7 inch pieces and place in a gallon plastic freezer bag. Moist (not wet) paper towels, sphagnum moss or wood shavings are usually placed in the bags. Also shaking moisture from a wet hand into the bag is usually sufficient moisture to prevent drying if a freezer bag is used. Cut ends of scionwood are often dipped in grafting wax or orange shellac, however that is not necessary. **Do not allow scionwood to dry out at any time.**

Place containers of scionwood in cold storage at 32 to 38 degrees F until needed. (This temperature normally prevails in the vegetable drawer of the home refrigerator.)

Whip Grafting is generally done in February while the root stock is dormant. Sometimes it is done later in the spring. Stock plants 3/4 inch or smaller in diameter are required for best results with this graft.

The Inlay Graft (Bark Graft) and the Four-Flap graft (Banana Graft) are usually done in late April and May while the bark is slipping. The inlay graft is usually made on pecan trunks or side limbs 1 1/2 to 3 1/2 inches in diameter. Four-flap graft is usually made on stocks 3/8 to 1 inch in diameter.

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. To the right of the signature, there is a vertical red line.

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

2008 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	M	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
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)

Updated 2/5/08