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# 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

June 29, 2005

Number 3

## SCAB

Randy Sanderlin  
LSU AgCenter Pecan Research-Extension Station

Most orchards in the state do not have significant scab disease because of the lack of rainfalls from May through mid-June; however, we are a long way from the crop being out of danger from yield loss caused by scab disease. In fact we are just now entering the time of year when nuts are usually most susceptible to infection. On many cultivars, nuts go through most of their size growth from late June through July. This growth period can be delayed if rainfall is below normal.

Recent rainfall (June 16-17) in much of the state was much needed, but it should also alert us to beware of the need to maintain fungicide applications to protect the nuts from infection during the rapid growth period. Fungicides prevent disease by stopping infections before they get established, so they need to be on the trees before rainfall occurs. Generally fungicide applications should provide protection from infection for at least two weeks, and intervals between applications can be stretched some during periods without much rain.

## PECAN ESTIMATE

The two Louisiana pecan grower organizations had their annual meetings in June and made their estimates of the 2005 pecan crop. The Pecan Producers of Louisiana had its estimate on June 14 of 8 million pounds for Louisiana with a national crop of 287 million pounds. The Louisiana Pecan Growers Association had its estimate on June 17 of 10 million pounds for Louisiana with a national crop of 297 million pounds.

The Louisiana state pecan estimates were considerably below the state average of 15 million to 16 million pounds. The small crop expected for Louisiana is a surprise since 2004 was an off crop year for most of Louisiana. Reasons for the low estimate for Louisiana include severe damage from forest tent caterpillars in Pointe Coupee Parish, a mixed crop in central Louisiana and a light crop in the Breaux Bridge area. North Louisiana's crop is generally good to excellent.

Estimates from neighboring states were 2.5 million and 3 million pounds for Mississippi, 2.5 million pounds for Arkansas, and 57 million and 67 million pounds for Texas. West Texas has a very good crop, and east Texas is a little light.

The average national pecan crop is around 265 million pounds.

## **LEAF SAMPLING**

A leaf sample is far more accurate than a soil sample in determining the amount of essential minerals being absorbed from the soil. A leaf sample will indicate the level of all 13 soil-supplied minerals and is the best means of accurately establishing the nitrogen and zinc levels. These two minerals, in addition to potassium, are the three elements most often deficient in Louisiana pecan orchards.

Leaf samples are extremely useful when taken properly. For trees that are producing well, a leaf sample can detect deficiencies in the non-visible range often referred to as “hidden hunger.” Corrective action can then be taken before the appearance of visual deficiency symptoms and in time to avoid an adverse effect on production.

Soil sampling is still recommended, however, to determine soil texture, certain mineral levels or imbalances, soil pH and any toxic mineral levels. It is also the only means available to determine fertility needs in new plantings. Both methods should be used initially, although subsequent soil samples need not be taken as often as leaf samples.

Pecan leaf analysis should be made June 15 to July 15; collect the middle pair of leaflets from the middle leaf of the current season’s growth. Take samples from shoots that have terminated their growth for the season and have fully expanded leaves. Continue this procedure until 40 pairs of leaflets have been collected from at least 10 trees. This constitutes one sample. Select shoots that are fully exposed to the sun and near the ends of branches, not small branches arising from large limbs nor shaded branches near the center of the tree. Collect from all sides of the trees. Avoid taking leaflets damaged by insects, diseases or those that are otherwise contaminated. Leaflets in one sample should all be from one variety, but this is not essential.

Samples from trees that are dying or otherwise not typical of the average orchard tree should not be included with the regular samples. It is also advisable to keep samples from young non-bearing trees labeled separately from samples of older bearing trees. Avoid sampling leaves covered with dust such as those near dirt roads, etc. Place the leaves in a new clean paper bag for air-drying in a dust-free area. Leave the bags open until leaves are dry. Leaves can also be dried in a kitchen oven overnight with the oven set on warm. Do not send in fresh green leaves.

If major rains have not followed last zinc application, rinse the leaves in running water and swipe with damp cloth.

Avoid rubber and galvanized containers when collecting leaves, because these could affect results.

A number of plant analysis laboratories analyze leaves. The nutrients normally analyzed are: nitrogen, phosphorus, potassium, magnesium, calcium, sulfur, zinc, iron, manganese, boron, copper and molybdenum.

Mailing address: Plant Analysis Laboratory  
LSU Department of Agronomy  
127 Sturgis Hall  
Baton Rouge, LA 70803-2111  
(225) 578-1219  
<http://www.lsuagcenter.com/stpal/>

MSU Soil Testing & Plant Analysis Laboratory  
Box 9610  
Mississippi State, MS 39762  
(662) 325-3313

Samples can be sent directly to the laboratory and the results of the nutrient analysis will be returned directly to the grower with an adequate, deficient or excessive rating given to each nutrient. If you have questions on the results, contact your county agent.

## **JUNE DROP**

The June drop occurs mid June through early July, just as the nutlets start to increase rapidly in size. The size of the drop varies in severity from year to year.

The three primary causes of the June drop are inadequate pollination, nut curculio damage and hickory shuckworm damage.

Inadequate pollination is often weather related. This type of drop is usually most severe following long rainy periods during late April and early May. Pecans are pollinated by wind-borne pollen. The rains prevent pollination by removing much of the pollen from the air. Nutlets that drop from lack of pollination usually show no signs of injury. There was a very severe drop from lack of pollination in most areas of Louisiana last year because of prolonged rains in the spring. The pollination drop is expected to be less severe this year since there has been dry weather during most of the pecan pollination period.

Nut curculio can also cause severe nutlet drop. There is usually a tobacco-like stain near a small puncture injury on the nutlet. The white legless worm can sometimes be found by cutting into the nutlet. Sometimes they are so small that it is hard to find them.

Hickory shuckworm can also be a major cause of nutlet drop. There is often a whitish blotch around the puncture of the shuckworm. The whitish area is sometime not seen. This is especially true after rainy periods. These white worms can sometimes be found by cutting into the nutlets. Shuckworm larvae differ from curculio larvae in that they have legs.

Damage from shuckworm is often more severe in areas where pecan phylloxera have been a problem. The first generation of shuckworm feed inside phylloxera galls, which helps build up their population for the second generation that is a factor in the June drop.

Insecticide applications are generally made the third or fourth week in June and two weeks later to control severe curculio and shuckworm infestations. Growers may use only one spray or none if they have a heavy nut crop and have not had severe problems with curculio and shuckworms in recent years.

The June drop can be helpful in thinning nuts in years when pecan trees are overloaded. The thinning will improve nut quality during overloaded years and can also help reduce alternate bearing by evening out the high and low production years.

## **INSECTS**

Mike Hall from the LSU AgCenter Research-Extension Station reported that second generation nut casebearer moths were found in pheromone traps at the station. Moth eggs have not been observed. He also reported that nut drop caused by hickory shuckworm and nut curculio was starting.

Light to moderate casebearer moth catches have been reported from Rapides Parish. A 5% infestation of pecan terminals by spittlebug was also reported. Spittlebug should be treated when 5% to 10% of nut-bearing terminals are infested.

Webworms are showing up in the Monroe area. Webworms can be controlled with most pecan insecticides.

Confirm 2F at 8-16 ozs/acre, Lorsban 4E at 2.0 pts/acre, Spintor 2SC at 4-10 fl. ozs/acre, Warrior at 2.56 – 5.12 fl. ozs/acre, Intrepid 2F at 4- 8 fl. oz/ acre, Mustang Max at 2.56- 4 fl. ozs/acre, Imidan 70-W at 1-1.5 lbs/acre or Dimilin 2L at 8-16 fl. ozs/acre can give effective control of shuckworm and casebearer. If spittlebug or nut curculio are present, Lorsban or Imidan is suggested. The pH. of spray water should be 6.0 or lower when using Imidan.

## **MISSISSIPPI PECAN CROP UPDATE**

David Ingram  
MSU-ES Plant Pathologist

So far the growing season in Mississippi has been pretty good. Some varieties appear to be a little late in flowering, pollination and nut set, particularly Stuart. Other varieties appear to have good nut set despite an above average rainfall during the pollination period. Little or no pecan scab has been observed in the central portion of the state. Fungicide applications began a little later than usual but about five applications have been made using a two-week spray schedule. Growers will move to spraying every three weeks provided the weather cooperates. So far, applications of trifloxystrobin/propiconazole and dodine have prevented pecan scab infections. Aphid pressure has been low. Phylloxera has been observed on some trees that were not sprayed. A few pecan casebearer insects have been observed and insecticide applications were made to control this serious pecan pest. Operations at this time include herbicide applications and clipping grass in the orchard.

## **OPPORTUNITIES**

### **June 30: Pecan Growers Workshop sponsored by Mississippi State University Extension Service, LSU AgCenter and Mississippi Pecan Growers Association.**

The workshop will be held at the Central Mississippi Research & Extension Center in Raymond, Miss. Registration begins at 8:30 a.m.; there is no registration fee and the day should conclude around 3:30 p.m. The workshop will provide educational presentations in the morning session. After lunch, participants will travel by bus to Smith's pecan orchard in Raymond for demonstrations on various pecan orchard practices. Program includes worker protection standards, sprayer calibration, pecan marketing, insect and disease control, pecan patch budding and orchard tour.

The Central Mississippi Research & Extension Center is located at 1320 Seven Springs Road. Turn Left (south) on Seven Springs Road when coming from the interstate on Highway 18 from I 20. Seven Springs Road is just after the Eagle Ridge Golf Course. Contact David Ingram (601) 857-2284 [david@ext.msstate.edu](mailto:david@ext.msstate.edu) , John Braswell [braswell@ext.msstate.edu](mailto:braswell@ext.msstate.edu) or John Pyzner (318) 644-5865 [jpyzner@agcenter.lsu.edu](mailto:jpyzner@agcenter.lsu.edu).

**JULY 17-20: TEXAS PECAN GROWERS ANNUAL MEETING**

Austin. For additional information, call (979) 846-3285 or go to [www.tpga.org](http://www.tpga.org).

**OFFICE CHANGE**

My office will change to the LSU Pecan Research-Extension Station effective July 1, 2005. The address is P.O. Box 5519, Shreveport, LA 71135-5519. Telephone number is (318) 797-8034. My e-mail will remain the same [jpyzner@agcenter.lsu.edu](mailto:jpyzner@agcenter.lsu.edu).

Sincerely,



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