



THE UNIVERSITY OF GEORGIA  
**COOPERATIVE EXTENSION**  
Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences



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# Georgia Pecan Nut News

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[www.ugapecan.org](http://www.ugapecan.org)

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### ***Drought and Pecan Production***

*Lenny Wells*

Although recent rains have brought, at least temporary relief from the drought to some areas, the dry weather that Georgia and the southeast has been under, subjected the trees to very low soil moisture and light scab pressure. But, how might the drought impact this year's crop, particularly where irrigation capacity is limited?

Fruit retention can be affected by drought, and I would expect a larger June drop than normal. This will likely vary related to soil moisture and irrigation efficiency from one orchard to the next, but overall, I would expect to see a higher percentage of nuts drop on dryland orchards and those with inadequate irrigation. However, given the crop load on most trees, and the added stress of drought, shedding some fruit now will help the quality and return crop.

Final nut size and shape varies depending upon the amount of rainfall during the elongation (June to mid July) and expansion (mid July to mid August) stages. If we get rainfall during elongation and expansion, normal-shaped nuts, will occur, though nut size will vary with the amount of rain.

If drought is severe during nut elongation but rainfall increases during the expansion stage, the nut will be shorter and rounder than normal. If soil moisture is better during the first half of the expansion period than during the second half, the tip of the nut will be broader than the base. Thus, at nut maturity, the size and shape of the nut will reflect the soil moisture history that existed during the two stages of nut sizing. Of course, adequate irrigation will minimize or eliminate this effect.

If soil moisture remains relatively low during nut expansion and we get rainfall during kernel fill, quality should be excellent, as we saw last year.

If soil moisture is very good during kernel development, the shells of drought induced small nuts may occasionally crack open during the latter stage of kernel filling. If so, the occurrence will be due to a nut volume that is too small to contain the kernel.

Looking at more long term effects, dry soil conditions from May-July is normally associated with a better return crop the following year. Dr. Darrell Sparks developed a climatic model for predicting pecan production several years ago.

According to Dr. Sparks' model, previous year's rain for May - July was the most important climatic factor influencing pecan production and had an effect 6.5 times greater than current year's rain in April - August. Soil moisture in the previous year affects the number of nuts produced, whereas current year's moisture affects nut size and kernel quality.

Current year's soil moisture has less effect on nut production because pecan production is dominated by nuts per tree and not by nut size. Pecan nut production is sensitive to deficit as well as excessive soil moisture.

Like extreme drought, excessive soil moisture induces a prolonged reduction in photosynthesis and suppresses leaf growth, consequently affecting pistillate flower abortion the following year.

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### ***Fruit Thinning***

*Lenny Wells*

With a pretty heavy crop load throughout most of the state (where freeze damage was not an issue), this will be a year that you may want to consider fruit thinning. Fruit thinning is a difficult thing for most growers to begin, but for certain varieties, it can greatly improve current season quality and next year's return crop.

Fruit thinning alone, is not a magic bullet for eliminating alternate bearing. A combination of tools are required to keep the tree stress free in order to generate a better return crop on many varieties. Some varieties will respond better to fruit thinning than others.

Cape Fear and Creek respond very well to fruit thinning. Stuart will respond to fruit thinning, but you have to be careful

about where you grab the tree with the shaker. If you grab the tree in a spot with a lot of woodpecker holes, it is easy to slip the bark and damage the tree. For this reason, Stuarts should be limb shaken. Kiowa nuts tends to hold tightly to the tree, requiring vigorous shaking, which could damage the tree, therefore, we do not recommend fruit thinning Kiowa.

Also, avoid fruit thinning immediately following wet weather. This could make it easier to slip the bark. It would be better to wait a few days for drier conditions.

If the crop load exceeds 70 percent fruiting terminals, fruit thinning would be beneficial on some varieties.

***We will be holding a fruit thinning clinic at Nilo Plantation near Albany in late July. Specific date will be determined as the crop develops. We will post the date and time on the [ugapecan.org](http://ugapecan.org) website and also on the hotline. Lunch will be sponsored by Albany Tractor.***

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### ***Nut Scab Management***

*Jason Brock*

The period of nut expansion is the most critical time of the season for protection. Timely fungicide applications and good coverage will be important. There are a couple of other points to be made concerning control of nut scab.

The critical factor in the development of nut scab will be weather, mainly rain events. Areas with little leaf scab could still be hit hard with the right environmental conditions. Do not let the level of leaf scab overly influence nut scab development. While the initial inoculum level may be important, the driving force behind scab epidemics will be rainfall.

A realistic goal is to reduce the severity of scab, not complete elimination. Not only would the cost be too great, but completely eliminating scab is not practical.

While nut size can be reduced by light scab, nut drop and reduction in percent kernel occur when scab severity is high. Protect nuts early and stay on a well timed spray program to reduce the damage caused by nut scab.

As always, make sure that your season long spray program follows resistance management guidelines.

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### ***Insect Update***

Will Hudson

Growers should be looking for dropped nuts under their trees at this time of year. Of particular concern are those nuts that drop due to Hickory Shuckworm or Nut Curculio feeding. Shuckworm damage usually leaves a small hole with a white powdery residue around it on the side of the nut. Curculio damage leaves a hole with a brown liquid ("tobacco juice") stain around it. Curculio is a fairly uncommon and sporadic pest that many growers never have a problem with, but hickory shuckworm is widespread and can cause significant losses. By the time a grower realizes nut curculio is active there is probably little that can be done. They can be controlled with the same treatments used for weevils, but applying Sevin or a pyrethroid in June is likely to cause more problems with mites and aphids than the curculio itself would cause. Shuckworm can be controlled effectively with the same materials used for casebearer.

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### ***Crop Estimates/Price Projections***

Lenny Wells

I recently returned from the Louisiana Pecan Growers' Meeting where there was much discussion of the size of the 2007 crop and its effect on price. Dr. Jose Pena, economist with Texas A & M, stated that he feels that

cold storage levels are low and demand is up somewhat. Also, he stated that while we are looking at a good crop, he does not feel that it is big enough to cause the price to bottom out. Pena stated that he felt we should see pretty good prices for pecans this year. Current crop estimates from the meeting are given below:

Alabama:	9,500,000
Arizona:	21,000,000
Arkansas:	1,000,000
California:	3,800,000
Florida:	2,000,000
<b>Georgia:</b>	<b>85,000,000</b>
Missouri/Kansas:	100,000
Louisiana:	12,000,000
Mississippi:	3,000,000
New Mexico:	65,000,000
North Carolina:	100,000
Oklahoma:	20,000,000
South Carolina:	500,000
Texas:	75,000,000

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### ***DATES TO REMEMBER***

*Fruit Thinning Clinic  
Nilo Plantation, Albany, GA  
Late July, 2007*

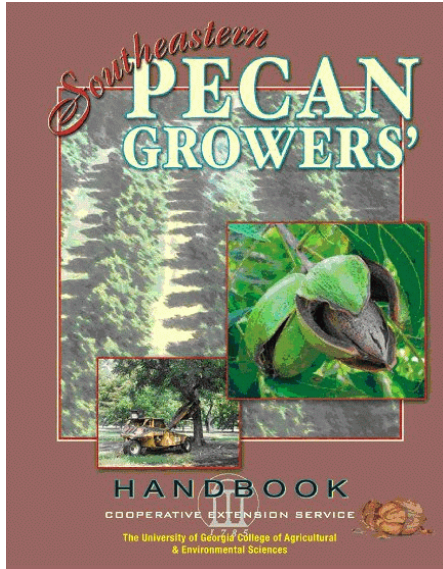
**Specific Date will be advertised on the  
ugapecan website and on the hotline:  
1-800-851-2847**

*Georgia Pecan Growers Association  
2007 Field Day  
Shiloh Farms  
Lowndes County, GA  
September 6, 2007*

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## ANNOUNCEMENTS

The new *SOUTHEASTERN PECAN GROWERS HANDBOOK* is available for purchase. Cost: \$38 per copy. Send check to Lenny Wells at 4604 Research Way, Tifton, GA 31793. *Checks should be made payable to: The University of Georgia.*



- 9 Storm Damage: Prevention and Recovery**
  - 10 Estimation of Pecan Tree Value**
  - 11 Insects and Mites Associated with Pecans**
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Newsletter Edited by  
*Lenny Wells*  
Extension Horticulturist-Pecans

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