



THE UNIVERSITY OF GEORGIA  
**COOPERATIVE EXTENSION**  
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## Georgia Pecan Nut News

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### *Spring Weather and Pecan Production*

*Lenny Wells*

As I write this in the first week of April, most of south Georgia has been bone dry for about a month now. The southwest part of the state had a little rain over the past weekend, which may help some, but the ground will soak that up pretty quickly. While spring is not the most critical time for good soil moisture, it is an important time.

In addition to being dry, the weather in south Georgia has been warm as well, up until Easter weekend. By the time you read this, the cold weather will probably have come and gone, hopefully without much effect. Forecasts predict temperatures as low as 28 degrees in some pecan producing areas.

While we would certainly prefer temperatures to remain well above this point,

the pecan crop should not be affected unless temperatures remain below freezing for several hours. In most cases, significant damage should not occur unless temperatures get down around 28 degrees and remain there for 3-4 hours or more. At this time of year, low temperatures usually only last for an hour or two at the most, right around sunrise. Of course, trees in low lying areas will be more susceptible to cold damage.

Temperatures in March generally influence the timing of budbreak, while those in April influence the rate of shoot elongation and receptivity of the female flowers. The cool snap should definitely slow down shoot growth as well as the development of insects that can affect pecan as well.

Dry weather at bud break and during shoot elongation/fruit development, and pollination can have a number of influences on pecan production—some good and some bad. These include effects on pollination, nutrient uptake, and scab development.

While high humidity can often limit pollen shed, warm dry weather can cause the stigma to dry out early, limiting the receptivity of the female flowers. Additionally, pollen will not shed when temperatures are above 85 degrees.

Nutrient uptake is also influenced by dry soils. You may get more efficient use of your N if you wait to apply N when soil moisture is adequate or when a rain is expected. Other nutrients are influenced by dry soils at bud break as well. Uptake of Nickel, Boron, and any nutrient that moves through the xylem will be affected by dry soils. It is not uncommon to see mouse ear when soils are particularly dry at budbreak. If you have had a mouse ear problem in the past and have had dry soils during bud break, a nickel application is likely warranted.

Weed control with glyphosate can be slowed down considerably in dry or cool weather. Weeds need to be actively growing to adequately take up glyphosate and distribute it through the plant. Many plants will shut down to some extent during a prolonged drought.

Of course, scab development is influenced by cool weather as well as dry weather. Scab infection can occur within a range of 50 to 95 degrees, with an optimum range of 59 to 77 degrees. Although I have seen and talked with many growers who are already spraying, take advantage of periods free of humidity and rainfall, as well as the cool temperatures, to stretch out your spray intervals, particularly early in the season if you can.



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### ***Apply Boron Now***

*Lenny Wells*

One of the best things you can do for your pecan crop is to apply foliar Boron (B). It doesn't take much and its very cheap, but getting it on at the right time is critical.

As long as leaf B levels are adequate, growers should not be too concerned with increasing leaf B. Because B is important to pollen germination, it can have a great influence on pollination and fertilization of the pecan embryo, which develops into the kernel. This is why it is vital that the developing fruit have access to adequate B in order to develop properly. *B applications should be made to the flower/fruit tissue, particularly during the pollination and fertilization period.*

I have consistently seen a 2% increase in percent kernel with foliar B over seven locations in on-farm trials over the last two years. The data seems to suggest that 2 applications provide the same results as 5 applications. Growers should make at least 3 applications beginning when the female flowers first appear (usually the second spray). Cost of foliar B is usually around \$1.30 per acre for one application.

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### ***Casebearer Trapping***

*Will Hudson*

After last year, many growers have expressed interest in trapping for Pecan Nut Casebearer moths. Trapping in your own orchard gives you information that is specific for your location, and can be more precise than relying on your neighbors or the Pecan Hotline. Traps are inexpensive, and 4-6 are enough for an orchard of as much as 100 acres.

Georgia growers should have their traps out by mid-April most years, although some

areas may not catch moths until early May. Traps are available from Great Lakes IPM and Forestry Supplies, among other places, and some local distributors may carry a limited supply.

Once the traps are hung in the orchard, check once a week until a few moths begin to appear, then every couple of days until a peak in numbers caught tells you significant egg laying has begun. Continue monitoring the traps in case, like last year, the flight is extended long enough to require a second insecticide application.



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***Scab Management:  
A New Season, the Same Question***  
Jason Brock

*Should I be applying fungicides?*

The need for fungicide applications has been a topic of conversation over the last couple of weeks. As we head into the 2007 season and trees are putting on foliage, growers are answering the question 'to spray or not to spray'. The first fungicide application can go out at parachute stage (regardless of weather) or be determined by weather (wait for conditions favorable for disease).

Many growers have already applied their first fungicide application. If that is the case, the interval between applications can be

lengthened to take advantage of dry weather. If the current rainfall and humidity conditions continue, there is no need to maintain a tight fungicide program.

If a grower has yet to apply fungicides, he should continue to monitor rainfall and short-term forecasts. The dry spring might just give growers a helping hand in the area of disease control. If the current weather continues, it will not be surprising to see many growers get through the pre-pollination period with only one or two applications.

*Factors in scab infection*

The combined effects of wetness period duration and temperature are not fully understood. What is generally accepted is that leaf wetness is the major determining factor for scab development. Free moisture is required for spore germination and infection, with 12 hours of wetness required for significant leaf infection.

When examining the factors involved in infection and disease development, three observations have been supported. First, rain frequency is more important than total rainfall. Second, heavy rain at any time of day indirectly favors scab development, because it results in conditions favoring long periods of fog or dew. Third, a light evening rain that keeps the trees wet all night will lead to more scab than rainfall ending early enough to allow trees to dry before dark. These three points indicate that continuous leaf wetness is the key component in infection.

As of April 6, 2007, these conditions have not occurred in most of the pecan production area in Georgia. We can't predict the weather, but we can sure take advantage of it. Use what is known about scab development

to improve the economics of pecan production.

### *Heading into the Post-pollination Period*

An optimistic thought is that if there is little leaf scab, inoculum for nut scab will be reduced, and subsequently the chances for nut scab will be reduced. That just does not seem to hold true. Past experience has shown that even following a dry spring, summer rains still bring a potentially explosive situation in regards to nut scab. The lesson that has been learned over time is this - current weather conditions are the driving force for scab development. We are not sure of the actual sources, but there seems to be an abundant supply of inoculum when the weather turns favorable to disease. Be prepared to stay ahead of scab. The best way to do that will be through protective fungicide applications. Just remember to include the weather conditions when making your scab management decisions.

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

*Georgia Pecan Growers' Annual Conference  
Albany, GA  
May 3, 2007*

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### ***ANNOUNCEMENTS***

The new *SOUTHEASTERN PECAN GROWERS HANDBOOK* will be available for purchase at the May meeting in Albany. Cost will be \$35 per copy. This new production guide is complete with full color photos and covers pecan production from propagation to harvest and marketing.

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Edited by  
*Lenny Wells*  
Extension Horticulturist-Pecans

### **Contributors:**

#### ***UGA PECAN TEAM***

**Jason Brock, Ext. Pathologist-Pecans**  
**Will Hudson, Ext. Entomologist-Pecans**  
**Paul Sumner, Ext. Ag. Engineer-Pecans**  
**Lenny Wells, Ext. Horticulturist-Pecans**