



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



The University of Georgia and Ft. Valley State College, the U. S. Department of Agriculture and counties of the state cooperating. The Cooperative Extension Service offers educational programs, assistance, and materials to all people without regard to race, color, national origin, age, sex, or disability. An equal opportunity/affirmative action organization committed to a diverse work force.

Georgia Pecan Nut News

Vol.3, Issue 1

Winter 2007

www.ugapecan.org

Contents.....

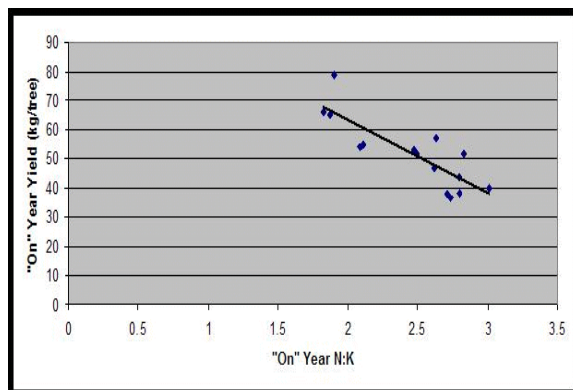
Preparing for the "On" year

Phylloxera

Poultry Litter Recommendations

Fetigation

Scale Insects



Preparing for the "On" Year

Lenny Wells

With last year's short crop and relatively good growing conditions, including good soil moisture from mid August to mid September, we should be set up for a pretty good crop in 2007. Since we do expect an "on" year, there are a variety of things to keep in mind as you plan for the management of this year's crop.

Over the last couple of years, I've looked closely at the leaf N:K ratio and its relationship to yield. This has led to the conclusion that adequate K in relation to N is vitally important for good pecan yields.

Basically, your leaf K levels should be about $\frac{1}{2}$ that of the N levels in the "on" year. The graph below shows that as the leaf N:K ratio approaches 3:1, yields decline.

Many times the N:K ratio can be difficult to manipulate because in most orchards, particularly in clay soils, high Ca and Mg, resulting from liming, tie up K.

As a general rule for an expected "on" year, apply 60 lbs K in February so that it has time to move down into the root zone. Evaluate the crop mid-summer. If the trees have set a heavy crop and leaf analysis indicates a N:K ratio over 2.5:1, apply another 30-40 lbs of K prior to kernel filling.

Utilize split applications of N as well, applying only $\frac{1}{2}$ the recommended rate in spring, and the rest if needed later in the year. This not only allows you to better manage the N:K ratio, but also allows you to apply N on an as needed basis rather than losing a lot of N to leaching, which often occurs if the full rate is applied in spring.

Use of Poultry Litter in Pecan Orchards

Lenny Wells

Results of the 2006 joint study between USDA and UGA of poultry litter use in pecan orchards has led to the following conclusions and recommendations regarding the use of litter in Georgia orchards:

- 1) The pathogenic strain of *E.coli* has not been found in GA or AL chicken houses.
 - 2) Well composted manure is safe to use in commercial orchards, provided it is properly composted and applied.
 - 3) *E. coli* is naturally present in orchard soils, regardless of the use of manure. The main source is from birds and mammals entering the orchard.
 - 4) *E. coli* levels are very low by 3 weeks after application of litter to the orchard floor. Sprinkler irrigation likely shortens this period even more.
 - 5) ***We recommend the use of composted litter only. Applications should be made no later than the first week of June.***
 - 6) The likelihood of *Salmonella* contamination from cattle manure is theoretically possible but highly unlikely if manure is applied in late winter or early spring. Under no circumstances should raw manure from cattle or litter be applied to the orchard floor after early June.
-

Phylloxera

Will Hudson

If there were phylloxera in your orchard last year, remember that you should add an insecticide to your first (bud break) fungicide spray. The window for controlling these pests is narrow, and there is nothing that will get them once the galls form. Chlorpyrifos (Lorsban, etc.) is effective, as are aphicides, like Provado and Centric.

Fertigation

Lenny Wells

Injection of fertilizer through the irrigation system is an effective way of applying fertilizer, while lowering the cost of production. Because you are only applying fertilizer to the area that is wetted by the emitters, the cost of N is greatly reduced.

The total rate of N applied by fertigation should be split between 3 to 4 applications in order to prevent the burning of tree roots with N. Common forms of N used for injection include liquid N (28-0-0), Urea, Potassium nitrate, and UAN. The irrigation system should be operated for a few hours after fertigation to flush the system and distribute nutrients through the wetted zone.

One problem that can potentially occur with fertigation is soil acidification in the wetted zone. High well water pH can limit this to some extent; however, after repeated applications, acidification may still occur. Potassium hydroxide (KOH) can be applied to temporarily raise soil pH. Calcium nitrate can also be used to provide N without lowering soil pH; however, excessive use can lead to problems with K uptake due to the buildup of high soil Ca.

Scales

Will Hudson

Scale insects can cause die-back of pecan limbs and branches. Pecan may be a host of a number of scale species, but the most common is the obscure scale. Scale insects can often be overlooked. The texture and color of these insects are very similar to that of the pecan bark. The waxy covering of the female is approximately 1/16 to 1/8" in diameter, flat, dark, and circular in shape.

Infested trees will have less vigor and are more susceptible to wood-boring insects. Infested branches up to 3" in diameter may be killed. Larger branches can be weakened, which limits production. Inspect trees and limbs for sign of scale, which normally begin on the lower 1/3 of the tree and move from inside toward the terminals. Treat scale-infested trees with a 2% dormant oil until runoff and again 10-14 days later. Treat when temperatures are between 32 and 50 degrees. Do not treat for scales when trees are wet and do not combine with sulfur. High volumes of spray (200 GPA) are required for thorough coverage.

DATES TO REMEMBER

Southeastern Pecan Growers Association
Annual Meeting
Panama City, FL
Feb. 23-24, 2007

Georgia Pecan Scout School
Rural Development Center
Tifton, GA
8am-12pm
March 7, 2007

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

COUNTY PECAN PRODUCTION MEETINGS

Feb. 7	Thomas/Grady Co.
Feb. 13	Peach Co.
Feb. 20	Crisp/Dooly/Wilcox
March 8	Berrien/Lanier Co.
March 15	Dougherty/Lee Co.
March 28	Jefferson, Emmanuel, etc.

Contact your local county extension office for information on location and time of meetings.

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

