Production considerations for fall

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As we head into the fall season, citrus growers are taking soil and leaf samples, fertilizing their groves, applying herbicides, mowing, evaluating reset needs, applying fall miticides (fresh fruit primarily), irrigating and scouting their groves for citrus psyllids and greening. This is also an anxious time of the year when the official USDA crop estimate is released and fruit prices are established for the upcoming harvest. Fall begins a new harvest season and is the time of year when we need to keep a particularly close eye on the weather for possible hurricanes.

SAMPLING AND FERTILIZATION

If you have not yet collected your soil or leaf samples, August and September are ideal months to accomplish this task. The benefits of leaf tissue sampling are fully realized by establishing an annual sampling program. Annual sampling allows a grower to follow trends in tree nutrition over several years. Leaf and soil analysis results allow for any corrective measures to be incorporated into a fall fertilizer application.

Fall fertilizer application should occur sometime between mid-September and October. The key is to avoid the summer rains as much as possible, because rains can cause runoff from the soil surface or leach the fertilizer below the root zone. Obviously in Florida we can also get a tremendous amount of rainfall from events such as hurricanes leading to similar problems.

Important to remember is that excessive fertilization in the fall and early winter can negatively affect fruit quality and tree cold hardiness. During this time, tree growth is more affected by soil and air temperature and available moisture than by fertilizer.

In the southern portion of the state, trees grow throughout the year and adequate nutrition should be maintained. Fall or winter fertilization may make psyllid control more difficult, delay fruit color development, and increase freeze susceptibility. For the most up-to-date information on nutrition of Florida citrus, please refer to the "Nutrition of Florida Citrus Trees", 2nd Ed., SL 253. It can be obtained either on the Web at http://edis.ifas.ufl.edu/ CG013 or from your citrus extension agent.

WEEDS

Weed management is a critical citrus production practice. Increasing fuel costs are forcing growers to evaluate their weed management programs. While total elimination of vegetation in the herbicide band is not necessary, reducing the competition from weeds to an economically cost effective level will help to minimize negative impacts on fruit yield, tree growth and access to groves for operations such as harvesting.

The most widely used chemical for weed control in citrus is glyphosate. The exclusive use of this product can create potentially resistant weeds; rotating herbicides helps avoid this problem.

Vegetation management of grove middles is usually done to prepare the way for early season orange harvest. Management of vegetation in between rows includes mechanical mowing, chemical mowing, and wiping or cultivation.

There are some advantages and disadvantages to each vegetation management practice. For more information on weed and vegetation management of middles, contact your local citrus extension agent or check online at http://edis.ifas.ufl.edu/CG013

RESETTING

Empty tree spaces are costly since these spaces typically still receive fertilizer, irrigation, spraying and mowing without any return on your investment. Resetting your groves allows for higher average long-term returns and does not require a large capital expenditure as is the case with replanting.

IFAS economists recommend that if trees can be grown to maturity in the presence of greening, then depending on the greening attrition rate and the price of fruit, resetting would be preferred over non-resetting (see "Economic tradeoffs of citrus greening management," Citrus Industry, April 2008).

If you decide to reset, evaluating your tree needs and contracting with a citrus nursery before the end of the current year will allow for fall 2009 or spring 2010 delivery. Citrus nursery trees have been in high demand and pre-ordering your resets has become necessary.

For additional information on the costs of resetting your grove, please contact your local citrus extension agent or go to the CREC economic extension webpage at http://www.crec.ifas.ufl.edu/extension/economics

MITICIDE

Fruit intended for the fresh market may need an October miticide spray to prevent any rust mite damage on the fruit. Bronzing induced by citrus rust mite damage occurs late in the year. If damage is significant, a fruit grade reduction, fruit size reduction, in-creased fruit water loss, and potentially an increase in fruit drop can be expected. Typically 50-75 percent of the fruit's surface must be damaged to reduce fruit growth or cause fruit drop.

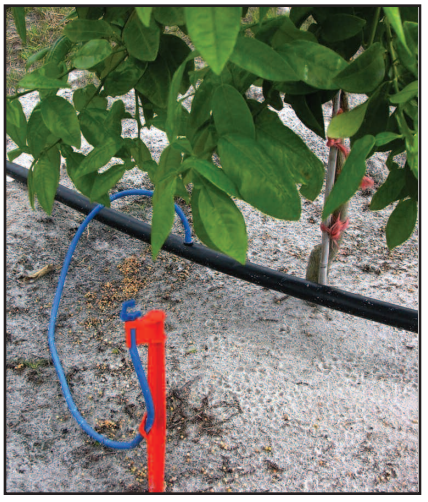
Processing fruit usually does not require a fall miticide application.

Citrus rust mite populations usually decrease in August, but can increase again in late October/early November.

No miticide with the same mode of action should be used more than once a year, with the exception of petroleum oil. For a list of products that have been proven effective to control rust mites under Florida environmental conditions, contact your local extension agent or access the 2008 Florida Citrus Pest Management Guide http://www.crec.ifas.ufl.edu/extension/pest

IRRIGATION

Fall is an excellent time to check irrigation systems to ensure they are in proper working condition. Having a crew walk and clean out irrigation lines and emitters leads to good irrigation system performance. Furthermore, a properly maintained irrigation system may be needed for fertigation



and cold protection.

Microsprinkler irrigation can be used to protect young citrus trees from freeze damage if the irrigation system has a reliable source of power and emitters deliver a sufficient quantity of water and are properly placed for maximum effectiveness. The freezing process releases heat allowing the portion of the tree covered with ice to maintain 32 degrees F, preventing plant tissue damage.

If you have not looked recently at the citrus irrigation tool on the Florida Automated Weather Network (FAWN, http://fawn.ifas.ufl.edu/tools/irrigation/citrus/scheduler/) this may be a good time to review it to improve or adjust your irrigation schedule. The tool is based on a computer model developed by Dr. Kelly Morgan using evapotranspiration data. You choose the FAWN station closest to you and enter your soil type, tree density, emitter information, and other variables of interest and the tool provides you a recommended irrigation schedule.

PSYLLIDS AND GREENING

One of the more recent activities that have become a necessity for citrus production in Florida over the past several years is scouting groves for the Asian citrus psyllid and greening infected trees. Greening symptoms start to become very apparent during the fall, which provides the opportunity to easily identify infected trees for removal. Identifying greening infected trees that act as inoculum sources and removing them is an important management strategy to limit the spread of this devastating disease in your grove.

Equally important in the battle against greening is spraying citrus trees to reduce psyllid population levels. The fall spray can be thought of as the first dormant spray controlling psyllids throughout the winter until February when the second dormant spray should be applied. The broad spectrum type chemicals such as a Pyrethroid, Imidacloprid, Chloropyrifos, or Dimethoate work well for this spray. Be sure to rotate different chemical modes of action in your psyllid control program to avoid psyllid resistance issues.

Soil application of Temik has become an increasingly popular way to control psyllids during the winter months. The Temik application period starts on Nov. 15 and ends April 30, so fall is a good time for planning. One problem with early and late application periods is that these time periods typically lack adequate rainfall to activate the product.

Certain regulations restrict the use of Temik in Florida. These would include well setback requirements that vary based on the type of well, soil type where application is made and well construction. Consult the Temik label for specific restrictions related to your proposed application site. Other recommended insecticides can be found in the 2008 Florida Citrus Pest Management Guide.

Citrus production in Florida continues to evolve as we are managing new diseases and pest pressures. Taking the time to review your production practices especially with the increasing costs of fuel, fertilizers and chemicals can pay big dividends in your citrus operation. Prioritizing production practices, creating timely schedules, and planning ahead for the future will help to maximize your returns.