



EXTENSION CONNECTION

By Mongi Zekri



These citrus trees show healthy performance under good microsprinkler irrigation and soil-applied fertilizer programs supplemented with foliar nutrition.

Important production practices for March

March is the month of the major spring new leaf flush and bloom for citrus trees grown in Florida.

Production practices in this month should be targeting an improvement in fruit set and fruit yield through irrigation and fertilization.

IRRIGATION

Microsprinkler irrigation is an important component of citrus production systems in Florida. Irrigation is of particular importance during the spring period because it coincides with the important stages of leaf expansion, flowering, fruit set and fruit enlargement.

Florida citrus growers and production managers know that they cannot grow citrus successfully and competitively without supplemental irrigation. With proper irrigation scheduling, tree growth and fruit yield will not be limited by water stress or

water excess. Over-watering will waste water and pumping energy, will leach nutrients and other chemicals below the rootzone and will contribute to contamination of the groundwater.

Good water-management practices should include precise irrigation scheduling and well-designed, uniform irrigation systems to minimize waste. Non-uniform irrigation will cause excess water to be applied in some areas, while other areas will not get enough. Production managers should be aware of the losses resulting from irrigation systems that apply water and chemicals non-uniformly, and should adopt the recommended ways to minimize these losses.

Microirrigation provides precise timing and application of fertilizer in citrus production. Fertilizer can be prescription-applied during the season in amounts that the tree needs and at particular times when those nutrients

are needed. This capability helps growers increase fertilizer efficiency.

FERTILIZATION

Fertilizer management should include calibration and adjustment of fertilizer spreaders, sprayers, booms, pumps and/or irrigation systems to accurately deliver fertilizer rates and place fertilizers within the tree rootzone. For citrus trees in the HLB era, soluble fertilizer should be split into at least 10 fertigations or six dry applications per year with a complete balanced fertilizer.

Besides nitrogen, phosphorus and potassium, be sure that the fertilizer program includes calcium, magnesium and micronutrients such as manganese, zinc, iron and boron. The use of controlled-release fertilizer twice a year is a good option. For mature trees, the highest nutrient requirement extends from late winter through early summer. This coincides with flowering, heavy spring flush, fruit set and fruit development and expansion.

Foliar applications of micronutrients should be applied at least three times per year, including on the major spring flush when the new leaves are about fully expanded. Foliar fertilization of citrus has been recommended to correct zinc, manganese, boron, copper and magnesium deficiencies. Currently, with widespread citrus greening in Florida, many growers and production managers consider foliar fertilization a key factor to stimulate the natural defense mechanisms of their trees and to improve fruit yield and fruit quality.

Foliar nutrition is a valuable supplement to soil applications. Foliar nutrition is proven to be useful under prolonged periods of wet conditions, droughty conditions, calcareous soil, cold weather or any other condition that decreases the tree's ability to take up nutrients when there is a demand.

For recommended rates and more detailed information, see "Nutrition of Florida Citrus Trees, 3rd Edition" by Kelly T. Morgan and Davie M. Kadyampakeni at edis.ifas.ufl.edu/pdffiles/SS/SS47800.pdf. 🍊

Mongi Zekri is a University of Florida Institute of Food and Agricultural Sciences multi-county citrus Extension agent in Labelle.