

Welcome to this week's issue of our 2024 season UF/IFAS Extension Suwannee Valley Watermelon Crop Update. These updates will be summarized by Bob Hochmuth, Regional Specialized Extension Agent- Vegetable Crops, with input from Suwannee Valley Extension Agents: Mark Warren (Levy), Tyler Pittman (Gilchrist), Tatiana Sanchez (Alachua), Luke Harlow (Bradford), Dan Fenneman (Madison), Keith Wynn (Hamilton), Emily Beach (Lafayette), Jim Devalerio (Union), De'Anthony Price (Jefferson), Raymond Balaguer (Suwannee), Kevin Athearn (RSA-Agri- business), Shivendra Kumar (RSA-Agronomic Crops), Jay Capasso (RSA- Water Resources), and Bob H. covering vacant Columbia County position.

If you know someone who wants to be added to this weekly notice, contact your Extension Agent or Mark Warren (352-949-8288) if you want to be added to the regional watermelon group text app.

We have initiated a more formal way to support our watermelon growers with a rapid diagnostics system through Suwannee Valley Regional and County Extension Agents. This industry-funded program allows Extension Agents to submit and pay for watermelon grower's plant disease and other diagnostic samples. This SV Rapid Diagnostic Watermelon Program will help us to get quicker diagnostic results, helping to give early alerts to everyone, and not have to charge the growers directly. Plant disease samples are typically \$40 and leaf tissue analyses are typically \$20. **We are currently extending our solicitation of those industry reps interested in sponsoring this effort. The past year's sponsorships have ranged from \$200 to \$2,000 per company. Sponsors will be recognized every week beginning this week. Those interested in being added as a sponsor can contact Bob Hochmuth at [bobhoch@ufl.edu](mailto:bobhoch@ufl.edu) or 386-288-6301.**

**Current 2024 sponsors of our Watermelon Rapid Diagnostics Program include Valdosta Plant Company, Mayo Ag Services, Gowan USA, Harrell's Fertilizer, Triest Ag, Syngenta Crop Protection, WestRock Paper Company, Orbia Netafim, and Super Sweet Farms. Others are still welcome to join.**

**Topics this week include: Disease update, Petiole sap nitrogen significant drop last week**

#### **Disease and insect spray update:**

Note: we still have no confirmed cases of powdery mildew or downy mildew, although we have seen samples suspicious of powdery mildew in the very early stages. We have received reports of rindworm activity. As a result of having low disease incidence, I would suggest keeping things simple. Perhaps a simple program this week will be Mancozeb (5 days to harvest restriction) (Manzate, Penncozeb, or other trade name) plus something as a preventative for powdery mildew (Quintec, Rhyme, or Procure), plus something as a preventative for

rindworms (Bt; Intrepid or Troubadour; or Coragen eVo. Note that Intrepid and Troubadour have the same active ingredient.

### **Petiole-sap nitrogen dropping last week:**

Perhaps the most common question and discussion this past week was related to the significant decrease in petiole-sap nitrogen during the past week. As most of you know, the UF/IFAS Extension agents in the Suwannee Valley offer a nutrient management service free of charge to growers in their county. This is a weekly service testing watermelon petiole sap for both nitrogen and potassium on over 5,000 acres of Suwannee Valley watermelons. The good news is that in most cases, the potassium levels were on target, within the sufficient range (3500-4000 ppm K) for seedless watermelon crops with fruit half grown or larger. At this same stage, fruit half-grown, the nitrate-nitrogen levels should be 600-800 ppm. In fact, there were many fields with nitrogen level in this optimum range of about 600 ppm. However, there were many more fields that tested at levels of 200-400 ppm nitrate nitrogen (thanks Extension agents and Beth Cannon). In many of those cases, the fields tested just fine the previous week. This is the same case for both conventional and controlled release fertilizer fields. So, why such a significant drop? First, we see great fruit load in most all fields and seemingly a concentrated set of larger fruit (half-grown or larger). This high fruit load in conjunction with good to very good growing conditions over the past 10 days, has likely caused the crop to “pull hard” on the nitrogen reserves in the root zone. I have seen nitrate nitrogen levels drop from 800 ppm to 200 to 300 ppm in one week. I also have seen crops with great vine growth prior to last week, suddenly slow vine growth last week. This combination of what I “see” and what the sap numbers reveal match each other. For this stage of growth, our standard recommendation is 2.0-2.5 lbs per acre per day of nitrogen and potash. In many of these low N cases, the crop was receiving less N than that recommendation. Note, as we begin harvests, the sap nitrate nitrogen level recommended range for seedless watermelon will go to 400-600 ppm.

The other puzzling part is that the dry leaf tissue sampling does not seem to capture this same story, or at least, the lag time in getting results was not keeping up with the change in crop needs last week. As many of you have heard me say, I rely more on petiole-sap testing because it is very sensitive to changes in nutrient status, and we can give you results “right now” while in the field. The experiences

this past week have only strengthened my resolve to the value of petiole-sap testing.