

## **Weekly Watermelon Crop Update for May 10, 2021**

Welcome to our UF/IFAS Extension Suwannee Valley Weekly Watermelon Crop Update. These updates will be summarized by **Bob Hochmuth** with input from Suwannee Valley Extension Agents: **Mark Warren, Tyler Pittman, Tatiana Sanchez, Luke Harlow, Jay Capasso, Sylvia Wills, Dan Fenneman, Keith Wynn, Danielle Sprague, Kevin Athearn, and Charles Barrett.**

**Topics this week:**

**Watermelon Field Day Recap**

**COVID Educational Materials and Assistance For Workers**

**Nutrient and Irrigation Management Update**

**Disease Update**

**Rindworm Alert**

**Rapid Diagnostic Watermelon Program**

**Watermelon Field Day Recap:** Thanks to all who attended the field day last week at the farm of our gracious hosts, Greg and Dale Watson. Thanks also to Farm Credit for sponsoring the delicious meal (chicken and sausage plus sides) The main topic of the field day was our work with controlled release fertilizers (CRF) and at this farm the field was divided into three sections. One was using the Watson's regular conventional fertilizer program with some fertilizer in the bed and the remainder fertigated based on petiole sap test results. The other two sections received two different analysis CRF fertilizers from Harrell's in the bed only. A small fertigation event (2-3 lbs of nitrogen and potash per acre) was implemented at planting time on all sections. No additional fertigations were implemented before the field day. If petiole sap tests suggest a small fertigation event may be justified on the CRF sections from this point forward, we will add single small events only as needed. Leaf tissue and petiole sap levels have been nearly identical in all three sections leading into last week.

There was some "brisk" discussion about irrigation management at the field day and the good news is that it got everyone's attention and serious consideration of the topic. Since that night, we have had a fair bit of follow up discussion and the attendees were split, half indicating they agreed, and half indicating they disagreed with one comment regarding the maximum length of an irrigation

event should be 90 minutes. The context of that statement, as Charles Barrett indicated, was based on a higher flow rate of 0.45- 0.50 gallons per minute per 100 feet of tape. Many growers use a low flow rate of 0.22 gallons per minute per 100 ft. A discussion of length of duration of any one event without including the drip tape flow rate is certain to end up in a disagreement. And, I think that is what happened. In terms of water delivery, a 1.5-hour event at 0.45 gallons is equal to 3.0 hours at a flow of 0.22 gallons. After this was thought through (after a cool down period), several growers who thought they disagreed with Charles, understood they actually agreed. The lesson in all of this, we should never discuss irrigation events in time only. Everyone MUST know the flow rate of their drip tape to even get a ticket to the discussion. No knowledge of your tape's flow rate,....no ticket! Bottom line for me (Bob H), after digging a few hundred blue dye holes in watermelon crops over the past 20 years,.... Charles was "right on the money", especially for early to mid-season events. I even had one grower indicate, with a 0.45 flow rate tape, he never goes over 1.0 hours, he just adds events in his automated system and can irrigate up to 4-5 times in a 24-hour period. The soil moisture sensors in those fields are picture perfect- no leaching. Late season events leading up to harvest are much less likely to leach and therefore, going above the early season durations is not a crisis like it is early in the season.

**COVID Educational Materials and Assistance For Workers:** Everyone should have received a mailing from UF/IFAS last week with a very nice and comprehensive article on keeping everyone safe from COVID written by Sylvia Willis, Suwannee County Extension Agent. If you have not seen this article, let your County Agent know. In addition, many County Health Departments are offering vaccinations to all farm workers and want to make this service easy for farm workers. Also, for further information contact your local Health Department or your Extension Agent.

**Nutrient and Irrigation Management Update:**

Most conventionally fertilized fields are at the stage of growth where the fertigation rates likely should be at 2.5 (at least 2.0 for any very young fields just setting fruit)) lbs per acre per day rate for nitrogen and potassium, using the net acres of watermelons in the field (not including drive middles and other non-

cropped areas in the field). Some growers inject every day and others 2-3 times weekly. The math should be calculated on a weekly basis. For a 2.5 lbs per acre per day rate times 7 days equals 17.5 lbs over that week. Once we start harvests, it is common to set the rate at 2.0 lbs per acre per day and leave it there until one week from last pick. This amount can be fine-tuned with the use of our petiole-sap testing program offered as a service by Extension agents in this region. Water demands these past two weeks escalated with heavy fruit setting and sizing of the fruit. This is always anticipated, and the change is dramatic. Most fields are at or past the point when one irrigation event per day will do the job. A second or even third event are commonly being implemented. Hopefully, every farm has soil moisture sensors, and are using them to guide the number and duration of each event. Now, the concern will be keeping up with the demand. (summary by Bob Hochmuth)

**Disease Update:** We are beginning to see a few more disease reports this past week. Reports last week were pretty to the previous 2 weeks for Fusarium wilt. The rate of new plants wilting has subsided as expected as the temperatures were high over the past two weeks. This slowing of new plants wilting is the same trend whether treatments were implemented or not. That is just the way it is as temperatures increase.

Pseudomonas bacterial leaf spot seems to have slowed and progress due to the dry weather conditions. Downy mildew has not been confirmed on watermelons in our region, so let's hope it stays away this year. However, we are seeing significant increase in activity in a few fields from Alternaria leaf spot and gummy stem blight. These are more common now, but we are not suggesting general sprays across the region. But where gummy stem blight is found, we suggest a targeted fungicide. Inspire Super is our top rated fungicide in our research trials. We still expect to see more foliar diseases this week, so let your county agent know if you see new disease symptoms. Most everyone has started a preventative program for powdery mildew by now. If not, I highly urge you to do so! We had been suggesting Miravis Prime if no symptoms were present yet, or adding Quintec, or Procure to the mix with mancozeb. (Summary by Bob Hochmuth with input from specialists, county agents, and consultants in the field)

**Rindworm Alert:** We have now received a few confirmations of rindworms feeding damage last week. Management strategies are much more complicated now due to new label restrictions to protect pollinators (that is a good thing). The better materials will include the higher labeled rates Intrepid or Coragen (as a spray only) which are also safe to pollinators. **Do not use pyrethroids** (bifenthrin, Asana, Lambda, etc.) for control of rindworms as there is a very high level of resistance to that class and they are very toxic to bees. It is much easier to prevent rindworms than to clean them up after they get started.

**Thank You to the Suwannee Valley Rapid Diagnostic Watermelon Program and Its Industry Sponsors:** UF/IFAS Extension agents have initiated a more formal way to support our watermelon growers with a rapid diagnostics system through Suwannee Valley Regional. This industry-funded program allows Extension Agents to submit and pay for watermelon grower plant disease and other diagnostic samples. This SV Rapid Diagnostic Watermelon Program will help us to get quicker diagnostic results and not have to charge the growers directly. Plant disease samples are typically \$40 and leaf tissue analyses are typically \$20. We want to thank the initial sponsors of this program: **Syngenta Crop Protection, Harrell's Fertilizer, Koppert Biological Systems, SEEDWAY LLC, BASF Vegetable Seeds, Bayer Crop Science, Gowan Seed, and Gowan USA** for sponsoring this effort. Other industry reps interested in sponsoring this effort can contact Bob Hochmuth at bobhoch@ufl.edu or 386-288-6301.