

Suwannee Valley Watermelon Crop Update- April 28, 2020
Bob Hochmuth, UF/IFAS Regional Extension Agent
NFREC- Suwannee Valley
386-288-6301

This week's topics:

#1 topic of the past week- "We seem to have lost fruit set 10-14 days ago!

Increasing water demand occurring in watermelon fields.

Main disease concern now is managing powdery mildew.

Scout for rindworms.

Hello watermelon growers and allied industry as well. This update is provided by your Extension agents in the Suwannee Valley and IFAS state Extension specialists Urgent crop situations that may need a farm visit to solve may require special permission for that travel, but permissions are being granted quickly. In the meantime, continue to send photos to your Extension agent for quick diagnosis.

Poor fruit set last 10 days: Perhaps the most frequent point of conversation last week was about the lack of fruit set about 10 days ago. This situation is uniform across the entire region. It goes back to the 3-4 days of cloudy and rainy weather 2 weeks ago along with those cold nights as well. During periods like that, we simply do not get good pollination. The bees are not working as much, the pollen is not viable at all, or "clumpy" and not easily moved from male flowers. As of today, I would say we see fruit larger than a softball (many football-sized), and then small fruit just set the size of a golf ball or so. But the fruit that would be baseball to softball sized are pretty rare. That is the set we did not get due to the bad weather and poor pollination. Nothing to be done now, just let Mother Nature take care of you moving forward. The bad news, we lost fruit set, the good news is nobody is alone with this situation. Maybe that delay in set will result in a better position in the market.

Irrigation schedule adjustments: We are beginning to see significant increases in water uptake in most fields This is about the time of year when we see these significant changes. I remember Mace Bauer saying, "watermelon water uptake will go up quickly about the 1st of May, bank on it". Some growers are already on 2 cycles per day, but everyone should be paying close attention to the soil moisture sensor data now and being prepared to make adjustments. Dr. Charles Barret is very helpful in this area, so let us know if we need to get Charles to help with things. He sees things in the data lines, that few other people see. He is really good at this.

Disease update: Be on continued alert for the possibility of diseases becoming more active as the season progresses. As of today, we are seeing a few different diseases, but nothing taking over. Let's not let our guard down.

Powdery mildew: Everyone should have begun to add a fungicide to your program for powdery mildew by now. This is the one disease that has been a consistent guarantee of being here the past several

years. Powdery mildew usually appears in late April or early May and we now have a few confirmed cases this past week. Powdery mildew will appear as splotchy yellow areas on the leaves with the white/gray fungal spores on the lower-leaf surface. Recommended materials at this stage to add to your regular fungicide program include Quintec or Torino. You do not need Quintec or Torino every week, perhaps every other week, but always with other broad-spectrum fungicides like mancozeb or chlorothalonil. Other options for powdery mildew include Procure, Propulse, Rally, and Luna Experience, but all of these are individual active ingredient products in Group 3 or include a Group 3 fungicide in the mix and that really limits the rotation to other Group 3 fungicides like Inspire Super, Aprovia Top, and tebuconazole, from week to week. Whereas, Quintec (Group 13) and Torino (Group U6) are from groups not normally used in our regular rotations and fit more easily in our rotations. Collect samples in question and deliver to your Extension agent or UF plant disease lab for further confirmation.

Bacterial leaf diseases: We have seen fields with signs of bacterial diseases over the past 10 days as a result of the cold rainy period two weeks ago, but movement within fields seems relatively limited and this week's low humidity, and sunny days will really help keep the bacteria slowed down. The UF Plant Disease specialists are working on determining whether the bacteria is *Xanthomonas* or *Pseudomonas* species. But, for those fields needing treatment, you will need to include copper in your spray program, typically added to mancozeb (Manzate or Penncozeb or other). Use "the low to medium" rate of copper product as stated on the label.

Other fungal diseases: We have also seen some gummy stem blight and where this is present control measures such as Inspire Super or other targeted materials are recommended.

Insect update: We strongly suggest scouting for rindworm feeding damage from the many caterpillar species that make up the "rindworm complex". Management strategies are much more complicated now due to new label restrictions to protect pollinators (that is a good thing). See last week's post for choices of materials which discusses using a Bt (*Bacillus thuringiensis*) material early such as Dipel, Agree, Biobit, Crymax, Deliver, Javelin, or Xentari. Once we get high pressure and you begin to see more symptoms of damage, then switch to a better material such as 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.

Leaf tissue and petiole sap testing: This is a service we will still continue to provide. Mark Warren, the relatively new agent in Levy County is winning the blue ribbon for number of samples run, and Tyler Pittman the brand-new agent in Gilchrist County is a quick study on this too. "They are working me out of a job, but I am very proud of their success". Most plantings are requiring 2.0 lbs per acre per day rates now with a few looking like they will soon need 2.5 lbs per acre per day. The good news is that we can tell you what you need immediately once the samples are collected.