

Suwannee Valley Watermelon Crop Update- April 20, 2020  
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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.

**Disease update:** Be on high alert overall for the possibility of several diseases. The weather during the week of April 13-20 was rainy, cold, and windy, and certainly a change from earlier weeks. We began to get photos this weekend that look suspiciously like the bacterial leaf spots we have seen in recent years. Samples will be diagnosed in the lab beginning Monday. These spots are characterized by wet lesions or dead tissue on the leaf surface, usually associated near the main veins. The affected leaves are generally in the older crown area. 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. It is difficult to give a blanket recommendation on rate because there are so many formulations of copper and different strengths. Also, we do not recommend adding copper to chlorothalonil.

We have also continued to see symptoms of Fusarium wilt. This is a vine or two initially wilting and continuing with the entire plant wilting and dying. This is likely due to the increased demand for water with new fruit setting and parts of the water conducting vessels being partially clogged. See last week’s update for further details on Fusarium.

We should begin to add a fungicide to your program for powdery mildew now, if not already added, in all early planted fields. Powdery mildew usually appears in late April or early May. 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 include Quintec or Torino. Since powdery mildew pressure is low so far, you do not need Quintec or Torino every week (perhaps every other week). Collect samples in question and deliver to your Extension agent or UF plant disease lab for further confirmation.

**Lightning Strikes:** This is sort of a novelty, but a very interesting one. Over the years, I usually see at least one small area in a watermelon field in our region each year. Think about it,....there was a lot of lightning strikes in the storms last week and they all have to hit somewhere, so why not a watermelon field. The symptom is a very sudden death of a few plants (sudden severe wilting and no recovery) in a row and or maybe a few plants in adjacent rows too. The thing here is that it is a much more sudden death than even Fusarium. To diagnose if lightning related, look closely along the plastic for a hole in the plastic where the lightning strike hit. The hole will be obviously “melted”, not torn. The lightning energy may follow along the drip tape (down the row) or along the vines and you may see other melted plastic areas. I have seen a couple instances where even the drip tape was melted down the line. I have almost

always been able to find the small melted plastic holes. In one case the lightning ran down the vines that were on top of a watermelon fruit and it etched a burn line in the fruit rind. Pretty interesting actually.

**Insect update:** Squash bug adults continue to be active and have posed a threat in certain fields. Continue to scout the field perimeters, as this is where they move into the fields first. If only the perimeters have squash bugs, spray only the perimeters so you minimize killing beneficials throughout the field.

We strongly suggest scouting for rindworm feeding damage from the rindworm species complex, especially in early planted fields and let us know if you see damage. Management strategies are much more complicated now due to new label restrictions to protect pollinators (that is a good thing). One approach is to begin with Bt (*Bacillus thuringiensis*) materials such as Dipel, Agree, Biobit, Crymax, Deliver, Javelin, or Xentari. These are very safe to pollinators and work well in the very early stages when the worms are small. I think of these Bt materials as almost a preventative spray to kill the first instar worms once they hatch on the leaves (where the eggs are laid) and before they work their way down to the watermelon fruit. 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. Coragen is very effective against rindworms as a foliar spray but is not effective as a chemigation through drip systems. 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. In some cases, farmers are pulling the petiole samples and leaving them at a “drop off” location for us to pick up. Let us know if you need advice on managing your fertigation program. The earliest plantings with 2-5 lb fruits may be requiring 2.0 lbs per acre per day of nitrogen and potassium, while other later planted crops are more likely to be at 1.5 lbs per day of nitrogen and potassium. With such a wide range of planting dates, we really cannot give a standard recommendation across the board. So, take leaf tissue samples or contact us for a quick, immediate test of N and K. In any case, our absolute top level of nitrogen and potassium is 2.5 lbs per acre per day for a few weeks once fruit are about ½ full size or so, and we are not there yet in most fields.