Welcome to the small farms podcast, a production of the small farms program at Iowa State University Extension and Outreach. In this episode, I talk with Joe Hannan, ISU Extension Outreach's commercial horticulture specialists about the effects the cold and rainy weather in April could have had on horticulture crops this growing season. I'm Christa Hartsook, small farms program coordinator. And we hope you enjoy the show. Joe rain in April is pretty normal. But we really had a cold snap there. Is that pretty typical for April? Or was that out of the ordinary?

No, Christa, we can definitely have a lot of cold issues, or cold temperatures in April, have to remember that our frost free date is really not until May 10 to May 15, depending on where you're at in the state. So yeah, cold can definitely happen in April. And it just kind of caught us off guard, mostly because we had a warm February. And that really got things kind of moving. And then things cooled down in March and April.

You bet makes total sense, Joe. So because of that cold snap, you know, if growers were really in early, how's that affecting horticulture crops now?

Well, as I said, we have that those warm temperatures in March. And that really started to get things like apples and other tree fruit starting to bud swell and starting to break. But fortunately, you know, we had that cold March then, and then April, again was still cold. But we
didn't have a lot of temperatures that were really down at the very harmful level below 28 degrees when we were in bloom. So I think from the orchard standpoint, the peaches, the apples, apricots, cherries, they all got through that cold spell pretty well. When we look at some of the other crops, it's not just thought it was cold, but it was also cloudy. So the high tunnels never got a chance to get really warm during the day because it didn't have that sun. So plan through kind of slow going. Anything that was growing outdoors is again slow. But with the additional rain, they were starting to show some nutrient deficiencies, we did see some dampening off or the plants die right at on the stem right at soil level. So we saw a little bit of that, once we finally did get into some sunny conditions, the plants are really not ready for the sun and for the heat, especially those who had new transplants in the ground right before that sun came out. So we did see some leaf burning or sunscald on some of those new transplants, just because they weren't really hardened off and ready to come out into that sun. Thinking about some of the other greenhouses, some of the folks that had been running heater, if they are running heaters for three or four days in a row, not getting enough ventilation or circulation in there, we did see a little bit of ethylene damage on a few of those plants here and there. Nothing major, we typically do see that, you know, for running hitters for multiple days in a row. So some definitely some minor issues, but I don't think anything that's gonna set crops back too far this year. So that's we're really lucky from that point of view.

Christa Hartsook 03:13
Joe, those are good points, you know, and if we saw some damage, say some sunscald or some dampening off of the plants, right at the ground level, are those things we just wait for the plant to come out of? Or are there things we can do as a grower?

Joe Hannan 03:27
Well, sunscald, the plants will come out of that. They'll eventually take off and go as long as the growing point wasn't injured, they will come out of it. But that really hits home the point that, you know, when you're getting transplants out, you need to protect them, and you need to get them used to going out into daylight. And in this case, you know, there wasn't a lot that we could do as far as damping and Oscar is concerned that that kills the plant. So we need to either replant the transplants or reseed those spots were where some of that happened.

Christa Hartsook 03:58
Absolutely. Joe, you know, pollinators are so important on a commercial scale for horticulture crops. How did they fare through that cold snap?

Joe Hannan 04:08
I think the pollinators did okay. Obviously, they weren't active. So they weren't out flying and doing their thing. You know, traveling around the, and looking at the orchards and stuff that are pollinated. It really looks like those couple days that we did have that were nice temperatures in between those cold cloudy days that the pollinators wore out, they were active. And so pollination did happen. A lot of the farmers also have in addition to honeybees that are also
bringing in bumblebees that are active off across a wider time period in the day, but also a broader weather threshold or temperature thresholds. So the pollinators did okay in there. They got out and did their job and a few times were were nice and now that the weather has turned much, much nicer. they've been out in full force again.

Christa Hartsook 05:03
Joe, talk to me a little bit about how crops are looking, you know, right now, I guess is a good question. Given that we have really entered some nice sunny days, some good growing, you know, days here.

Joe Hannan 05:14
Yeah, stuff is really starting to take off and move along. I was looking at some tomatoes last week and the week before, I think they probably grew to three, four inches just in that short couple days, peas and all the leafy greens are just really moving along. And all our warm season crops have now been in the ground for a few days. And they're really starting again, to really pop and move along with plenty of moisture. We've got some heat, we've got some sun. So stuff is coming out of that cold spell the last couple of weeks really, really well.

Christa Hartsook 05:49
Awesome. Joe are there any kind of concerns with a cold spell that we had, in terms of upcoming, you know pests that we really need to watch for?

Joe Hannan 05:58
I don't think the cold spell is going to play a lot role on pest, but that cold and wet spell particularly for anything outside could definitely cause nitrogen leaching out of the root zone. So you may see a little bit of nitrogen deficiency may need to go back and reapply a little bit just because all that rain that we had

Christa Hartsook 06:19
You bet makes sense. Anything else that you want to share with us in this point in time in the growing season, Joe?

Joe Hannan 06:25
Yeah, at this point in time, the growing season, I am getting a couple calls regarding spotted wing drosophila more of a, what do we need to do to get out and set our traps out in our strawberries and in our cherries, going just last week that they do see some strawberries in previous years being infested with SWD. So they want to get their traps out this year and monitor when they're actually coming out into the field. And again, with our cherries, we had an
instance last year where they were infested. And again, so they were calling in about getting the traps out and things. So that'd be a couple of things with the SWD that I'd be looking out for. I'm also getting quite a few calls regarding squash vine bore that had infested plants last year again, and again, we're still a few weeks ahead from squash vine borer, that's probably going to move in here through the mid June period sometimes so just kind of be on the lookout for that one. Otherwise, you know, a lot of times we see aphids, spider mites being problems in high tunnels this time of the year, I really haven't seen any haven't had any concerns with that, or calls on those pests yet this year. Other pests coming out right now would be the cucumber beetle. We should be seeing that one really about this week or next week, just kind of see depends on how the things play out here. But that'd be another another major pest on all of our musmelons cucumbers that we should be should be watching for and managing when he does show up.

Christa Hartsook 08:01
Absolutely, Joe and what kind of treatments should we be looking at, you know, on both SWD and that cucumber beetle right now?

Joe Hannan 08:08
Oh, that's a very good question, Christa. I don't have my notes on that one. But treatments on SWD. There's a fantastic publication on the extension store that list out all the treatment options by crop and when their harvest intervals are some of the options on that are entrust, which would be inorganic option. Malathion on Mustang Maxx, are a couple other good products. But there's several on the SWD control that will work for the cucumber beetle control. I think we have things like Mustang Maxx, or all any of the pyrethrins we've got seven would be effective on that one again, as well. So there's there's a couple options. Again, check out the Midwest vegetable production guide from the extension publication store. The number is fg600 If you want to do a search for it.

Christa Hartsook 09:05
Awesome. Thanks so much, Joe, and thanks for being on today. We appreciate it.

Joe Hannan 09:09
Oh, I'm happy to be on here, Christa. Hopefully I'll see you in a couple weeks ago.

Christa Hartsook 09:12
All right. Sounds good. Thanks, Joe.

Joe Hannan 09:14
All right. Thank you