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Ohio State University Extension Vegetable Crops On
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Predicting the arrival of corn earworm moths by C. Welty

A key event in sweet corn pest management is the arrival of large numbers of corn earworm moths, typically in late August. Infestation of corn earworm larvae in ears of sweet corn in Ohio develop after moths migrate from the southern USA and lay their eggs in fresh corn silks. Migration typically occurs in late August but can be earlier or later depending on weather systems that help blow them northward.

In recent years, use of pheromone traps has helped detect the arrival of the corn earworm moths. Growers can have their own pheromone traps, or they can check the catch of moths in traps at several Ohio locations by checking weekly reports at the VegNet website.

This year, an additional tool is available to predict the arrival of the moths. A system of predicting moth arrival based on weather patterns has been developed by Dr Mike Sandstrom in the geography department at

Northern Illinois University. He issues a daily Insect Migration Risk Forecast that includes maps that show the probability of moth arrival on that day, the next day, and the following 3 days. Last year the maps were available to researchers only, but this year they are posted on a website that is available to anyone. The first posting was 15 May. A new forecast is posted 5 days per week, Monday to Friday. The maps are found at:
<http://www.maplecity.com/~sand/cew/imrf.html>

More on onion thrips control on dry bulb onions by C. Welty

As announced in VegNet on 17 May, Ohio has been granted a Section 18 emergency registration for use of Carzol to control onion thrips on dry bulb onions. The label is posted on the internet at:
<http://pested.osu.edu/documents/Section%2018/Carzol.pdf>

The label allows for 1.5 lbs of product per acre per season. Growers can either make one application at 1–1.25 lbs/A, or two applications each at 0.75 lb/A.

Researchers had good luck with the 0.75 lb rate in 2006 as long as thrips populations were not wildly out of control. Carzol is NOT a rescue tool but is a highly-effective component of an overall thrips management program.

The entomologists at Gowan Company recommend several tips for best results:

- Use a wetting agent.
- Spray solution pH needs to be 6.5 or less. This is very important since Carzol is subject to alkaline hydrolysis.
- Coverage is everything; use good application practices including adequate water volumes.
- Intervals between sprays should be 5-10 days depending on weather and thrips development (5 days under hot conditions with high populations, or 10 days for cool weather with moderate populations). Seven days is a good average interval target.
- Make sure that the rotational crop restrictions will fit the farm operation.

Stewarts Bacterial Wilt

I noticed some Stewarts bacterial wilt in sweet corn yesterday in central OH. About 10% of the field was affected where the corn was about 3 to 4 feet high. Dr. Pataky of the Univ of IL is also reporting Stewarts wilt in IL despite the cold winter and spring temperatures. Next week we will have his special report which he sent out yesterday.

Other corn is looking great and some plastic corn is just starting to tassle.

Crop Reports by Ron Becker and Brad Bergefurd and

Hal Kneen

Meigs county report May 31, 2007

Lack of rainfall still the big item on most growers minds. We have received only three tenths of an inch of rain in May. Irrigation by drip tape and water cannon has helped however later plantings are suffering due to low soil moisture especially sweet corn plantings. Drought tolerant crops like tomatoes have continued to grow without irrigation however fruit size is bound to be smaller in those fields.

First of the squash and cucumbers are being harvested for the local farmer markets. Broccoli is forming small heads due to high temperatures (10 days over 90 degrees) and lack of moisture. Tomatoes on mulch plastic beds and on bare ground are forming fruit, largest about silver dollar size. Sweet corn under irrigation growing rapidly no sign of tassles yet.

Already receiving calls about picking tomatoes for canning. High tunnels, row covers and raised beds covered with plastic are allowing earlier harvests, however late May tomatoes for bargain prices won't occur until global warming has a greater effect on the weather.

Talking about pricing, what is expected to happen as the season progresses? Will prices increase to cover additional chemical, seed, labor and irrigation costs? Supply and

demand have a regional effect on prices however who is reaping the benefit: growers, marketers or consumer?

Meigs County has opened its first Farmers Market in several years. It is being held Fridays, late afternoon from 4 p.m to 7 p.m. in Middleport. The market has joined forces with the Meigs County Health Department, Economic Development office and Middleport Development Corporation to promote buying from local farmers and improving the health of its citizens. A scheduled health walk of three miles is planned for each Friday around the community of Middleport.

Southern Ohio Veg Net Report From May 31, 2007 Some production areas received very isolated afternoon thunderstorms this week, however the vast majority of production areas remain in a drought condition with many areas receiving only about a 1/2 inch of rainfall in the month of May and less than 2 inches for the month of April.

Sweet corn planted in March under plastic is tasseling in the Bainbridge area. Post emergent weed control in sweet corn and snap beans remains an issue on many farms due to a lack of moisture to activate pre emerge herbicides. See last weeks veg net report regarding an article from Dr. Doohan on post emergent sweet corn herbicide options. Growers should still not be parking the cultivator. Harvest of tunnel grown summer squash and vine ripe and

mature green tomatoes continues. Harvest of field radishes, lettuce, spinach, green onions and strawberries continues. Harvest of plasticulture strawberries has peaked and is on the decline. Harvest of matted row strawberries began in full swing this week due to the high heat being experienced. If the heat continues the matted row strawberry harvest could be shortened. Fruit is enlarging on black raspberry and summer red raspberry with frequent irrigation being very critical. Early planted Potatoes are in bloom with some potato beetle activity being reported in some fields.

Growers are having to apply pesticides to vine crops for cucumber beetle emergence has grown significantly just before the Memorial day weekend with very high trap numbers being caught in the Circleville area.

Irrigation is being applied through drip and overhead systems almost around the clock due to the drought conditions being experienced throughout southern Ohio. Planting of sweet corn, snap beans, tomatoes, peppers, cucumbers, summer squash, melons and watermelons continues. Planting of pumpkins began over the Memorial day weekend. Growers not tilling pumpkins are setting no till planters as deep as possible and are still having problems getting proper seed depth into moisture, for example planters set at 3 inches are only placing pumpkin seed about 1/2 inch deep due to the very dry soil conditions. Standing Rye was rolling better over the weekend with increased humidity levels and some

moisture in the air. Spot Re-planting of sweet corn and green beans was being done due to poor emergence from initial plantings. Split emergence is being reported in sweet corn and green bean plantings. Mustard crops planted as biofumigant crops this spring are beginning to prematurely flower in the Circleville area due to the dry soil conditions and high heat conditions being experienced. Growers are concerned with this decreased Biomass production and the effect on the biofumigant properties of the crop, whether it will work as well as a full grown crop?

Wayne County Vegetable Crop Report. From June 1, 2007
Scouting report for Wayne and surrounding counties –
6/01/2007

Cole crops are showing flea beetle damage with some fields having threshold numbers (5 beetles per plant). We are also finding very light numbers of Imported Cabbage Worm eggs and larvae.

Some potato fields have high levels of flea beetle activity and are being sprayed. Potato beetles are now starting to lay eggs.

Sweet corn fields have light cutworm leaf feeding and less than 1% cut plants.

Bean leaf beetles are being found in green beans. Damage has increased to the point that treatment is necessary (30% defoliation).

Cucumber beetles are becoming active in vine crop fields, especially those planted near where vine crops were last year.

Thrips are just starting to be found in onions at threshold levels (10–15 thrips per plant).

Some pepper transplants being grown on black plastic are being burned off at the line of the plastic due to high temperatures under the plastic escaping through the holes. This damage also makes them more susceptible to wind damage. Filling the in the holes around each plant with loose dirt should help to buffer the plants from the heat.

Other insects being found on various crops include aphids, potato leafhopper, common stalk borer and two spotted spider mites. European corn borer adults are also starting to be found. We will soon be setting up traps for both the corn borer and ear worm.