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1. Corn Earworm ALERT!

CORN EARWORM ALERT! (C. Welty & J. Jasinski)

Several of our trapping cooperators reported a sharp increase in the number of corn earworm moths caught in pheromone traps during the past few days (24 to 28 August). A trap at Medina jumped to 11 moths last Thursday, the highest yet for that site this year. Our trap in Columbus had 49 moths between last Wednesday and Friday. Our trap in Clark County had 198 moths between Friday and Sunday. This sharp increase in late summer is typical in most years, but is a bit later than usual this year. For growers using the Scentry Heliiothis mesh trap or Hartstack earworm trap, we recommend checking the trap every 1-2 days over the next few weeks. Timely moth catch numbers along with the steps outlined below will determine the most effective spray schedule for earworm control.

Presence of corn earworm moths means that plantings of sweet corn in the fresh-silk stage need insecticide sprays to prevent wormy ears at harvest. Recommended spray schedules are shown in the table below. Sprays during silking should be every 2 to 6 days depending on the number of moths and with temperature, because silk grows faster when temperature is high.

Insecticide Spray Schedule for Corn Earworm Based on Number of Moths Caught per Week in Pheromone Trap (Scentry Heliiothis model):

Average number of corn earworm moths per trap per day	Spray interval (depending on maximum daily air temperature)	
	<80 degrees F	>80 degrees F
< 0.2	No spray	No spray
0.2 - 0.5	Every 6 days	Every 5 days
0.5 - 1	Every 5 days	Every 4 days
1 - 13	Every 4 days	Every 3 days
>13	Every 3 days	Every 2 days

Until recently, pyrethroids such as Warrior, Hero, Mustang Max, Asana, Brigade (Capture), or Baythroid were a popular choice for earworm control, but resistance to pyrethroids has been developing for the past few years across the Midwestern USA, including Ohio. Our trials have shown that Hero, which is a pre-mix of two pyrethroids, is more effective than any of the pyrethroids alone. If a pyrethroid is used for corn earworm control, it should be used at the maximum rate if it is to be effective. Where pyrethroids alone are not providing good control, other relatively new options are Coragen, Voliam Xpress, Radiant, and Belt. Older options for non-pyrethroids are Lannate and Larvin. Our trials have shown that the newer products such as Coragen or Voliam Xpress are most effective in the first few sprays during silking, and they can be followed by a high-rate pyrethroid in late silking.

Transgenic sweet corn varieties, such as the 'Attribute' series, provide control of low levels of corn earworm activity but usually do not provide good control when corn earworm populations are high unless supplemented by sprays of insecticide. Two sprays during silking are adequate: one when 75% of ears have fresh silks and another spray 4 days later. Corn earworm is also called the tomato fruitworm and can attack tomato and pepper fruit if its preferred food, fresh-silking corn, is not available. Options for control of this pest on tomato are Proclaim, Avaunt, Intrepid, and Radiant.