Cutworms Ravaging Corn Fields in Vermont

Dr. Heather Darby & Dr. Sid Bosworth, UVM Extension Agronomists

Over the last week we have received many reports of heavy cutworm damage in cornfields around the state. Although cutworms are not an unusual occurrence in Vermont this type of widespread damage certainly is an oddity. Several factors such as storm fronts, actively growing weeds, and cool temperatures have played a role in the widespread cutworm problem.

Storm fronts carry adult black cutworm moths to Vermont. Moths "drop out" of these storm fronts and seek attractive egg laying sites, especially common chickweed and other winter annuals. As planting is delayed, black cutworm larvae (worm) will hatch and begin feeding on the weeds. As the weeds are killed, the cutworms need additional food and will be large enough to cut corn plants as seedlings emerge from the soil. Fields that are most susceptible include late plantings, no-till plantings, weedy fields; low, wet areas; and fields previously in pasture or sod.

Cutworm larvae pass through six instars and require 28 to 35 days, depending on the temperature to become mature larvae. Degree-days are an effective tool to help determine black cutworm development. The black cutworm requires approximately 640 degree days to reach pupa stage and 1000 degree days to reach maturity. Since the spring temperatures have been cool the development of larvae has been slow. The recent hot temperatures have pushed them to the cutting stage. The cutting stage will last until approximately 300 to 400 GDUs accumulate. This will push the larvae to the pupae stage at which time it stops destroying plants. To check cumulative GDDs in your area, go to the following websites: http://pss.uvm.edu/grape/2009DDAccumulationGrape.html or http://www.nass.usda.gov/Publications/State_Crop_Progress_and_Condition/current/current_eng.rtf.

Scouting for black cutworms is essential, even if products for control (seed treatment and Bt corn) have been used. Cut, missing, or wilted corn plants are typical symptoms of black cutworm larvae damage. Feeding mainly at night, larvae will move up the row as they feed. On average, one larva may cut three or four plants in its lifetime. To scout, check 20 plants in 5 locations for cutworm injury. According to Penn State Entomologist, widely accepted thresholds are 2, 3, 5, and 7 cut plants per 100 for seedling, V2, V3, and V4 stage plants, respectively. The staging number indicates fully formed leaves, so a V2 would mean a corn seedling that has two fully formed leaves although it may have an incomplete emerging third leaf.

Postemergence rescue treatment is suggested when 5 percent or more of the plants are cut and larvae are one inch or less in size. If they are larger than an inch, it is less likely that a control treatment will help. Rescue treatments should be applied late in the day since cutworms feed at night.
Only the infested area and a 20 to 40 foot surrounding buffer need to be treated. The spray should be directed to the vase of the plant. Approved treatments can be found at the Agency of Agriculture website or contact UVM Extension.

It appears the stage is set for black cutworm problems and a lack of vigilance could result in discovering the problem too late. Go and scout your fields! Even if it is too late, you should document the damage and, if possible, take pictures for your crop insurance records. Be sure to write down the date and extent of damage.

For additional information, refer to http://pss.uvm.edu/vtcrops/.

Prepared 7/1/09