

MANAGING INSECTS IN SWEET CORN

Corn Ear Worm is the greatest threat to sweet corn growers across the Midwest and Northeast - creating the potential for our customers to lose profits. We have heard reports from growers and university researchers that not all insecticides are created equal and do not provide adequate control that is needed. Labels often do not communicate its effectiveness on potential resistant insect populations. Each growing region may have varying degrees of resistance. It is best to contact local extension personnel or chemical retailers to see what works best in your growing region. It is a best management practice to always rotate modes of actions.

We have put together a “Sweet Corn Growing Guide” (information below) to help growers monitor and combat this profit robbing insect. We also have a helpful section titled “Insect Scouting Resources” on page 39. Please feel free to call in to request your copy of our “Sweet Corn Growing Guide” to find other helpful tips and ways to control other Lepidoptera that can cause severe damage to sweet corn such as: European corn borer, fall armyworm and Western bean cut worm.

MONITORING EUROPEAN CORN BORER AND CORN EARWORM

One of the keys to successfully managing European corn borers and corn earworms on sweet corn is to determine when the insects are active. European corn borers can be monitored effectively with blacklight traps and field observations, and corn earworms can be monitored with pheromone traps. When moths are being caught in the traps, it means they are laying eggs.

Corn borer eggs are laid on leaves, usually on the undersides, in the region of the ear. Larvae feed on the leaves and later may migrate to the ears (if present).

Corn earworm moths lay their eggs directly on green silks. The larvae that hatch from those eggs will follow the silks down into the tips of the ears.

Because these two insects’ egg laying behavior differ, control strategies also differ. Corn borers can be controlled by spraying during the late whorl, tasselling, and silking stages. The migrating larvae should contact a lethal dose of insecticide while moving to the ear zone. Corn earworms must be controlled by directing sprays at the silks so larvae will immediately contact the insecticide after hatching.

For corn borers, treat during the late whorl stage if 20 percent or more of the plants show larval feeding. The presence of large numbers of moths in light traps also justifies treatment. One application during the late whorl stage, followed by additional treatments every five days up until seven days of harvest, usually provides adequate control.

For corn earworms, treatment is justified if fresh green silks are present and moths are being caught in pheromone traps. In general, the higher the moth catches, the shorter the interval between sprays. If fewer than five moths are being caught per night, a five-day spray interval should be adequate. As moth catches approach 50 to 100 per night, a two- to three-day spray interval would be more appropriate. Determining the spray

interval exactly depends on many factors, including how much damage you can tolerate, the crop’s value, and the cost and effectiveness of the insecticide. Stop treating for corn earworms when 90 percent of the silks are brown.

Obviously, growers should not treat separately for these two pests. Some of the insecticides recommended here are effective against both species. Choose insecticides that are more effective against the particular pest that is most prevalent at the time of application. If both pests are present, choose an insecticide that will adequately control both.

INSECT PROTECTED VARIETIES

Insect protected sweet corn varieties such as Syngenta’s Attribute, Attribute Plus, and Attribute II Insect Protected corn and the Performance Series from Seminis should be considered as they will allow the grower to decrease the number of sprays that need to be applied. While these products have a built in resistance to some insects, they do not eliminate the need for insect scouting and occasional spraying. Using these varieties in combination with a reduced spray program will lead to great results. The extra investment in seed cost pays off in reduced spray and fuel costs as well as less time in the fields, making insect protected varieties an interesting alternative.

Wire traps and lures are available from several sources. A quick search on-line will guide you to many retailers including Gempler’s.

INSECT SCOUTING RESOURCES

www.ruppseeds.com/InsectForecast

Learn more about current corn insect pressure.



www.ruppseeds.com/NYSweetCorn

This is a link to the NY Sweet Corn Trap Network Report. It also contains a mountain of information on best management practices for sweet corn growers. They also have several fact sheets on individual pest as well as videos on how to set up and maintain your own Trap and Monitoring system.



GROW YOUR BEST SWEET CORN!

Our guide features tips from product selection through planting and harvest. Visit our website to download it or request a printed copy.



<https://www.ruppseeds.com/vegetables/sweet-corn-guide>