

Online Mapping Of Sweet Corn Pests — What's New In 2000

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During the past eight years, Pennsylvania has used pheromone lures to monitor for the three "worm" pests of sweet corn: European corn borer, corn earworm, and the fall armyworm. Traditionally, this information has been available via telephone (1-800-PEN-NIPM) or fax-back reporting.

Proper monitoring allows growers to increase spray frequency when populations are high and decrease spray frequency when populations are low. Using trap counts to adjust spray frequency often results in fewer total sprays, offering a benefit in both dollar savings on pesticide and time saved by not spraying.

Using maps to illustrate regional pest pressure has many

advantages over telephone or fax-back reporting. Maps enable intuitive comparisons of trap counts. This regional view benefits all participants by increasing awareness of nearby pest densities.

For example, the fall armyworm and corn earworm immigrate into Pennsylvania from the south. Maps from the 1999 season illustrate that before these pests immigrate into Pennsylvania, their densities increase in Delaware and Maryland. This provides Pennsylvania growers with a two-week warning before serious immigration of these pests occur in Pennsylvania.

A website to display maps of the pheromone trap captures was launched last year with good results. One hundred farms in four states Delaware, Maryland, New York and Pennsylvania participated. The Website providing maps of the trap captures was accessed approximately 1,200 times during the season.

The Website provides access to both current and historical pheromone and blacklight trap captures and includes information on integrated pest management (IPM). Data is reported in a buffer point format with larger circles representing higher moth captures. Clicking on any of the capture points links to a time series for that pest at that location. Users can also access the time series for all pests at a given location.

The sweetcorn pest monitoring website can be accessed at <http://www.ento.psu.edu/vegetable/sweetcorn/>

If you access the site now, you will see maps for 1999. The last map created at the end of the season in 1999 will be the default. Try going to earlier dates to see more valuable information. For example, go to the CEW maps from Aug. 14, 1999 to Sept. 11, 1999 to see the major CEW immigration in 1999. Use the scroll bar on the left-hand side of the web page to choose

maps. We anticipate new maps from the 2000 growing season to be coming on-line in early to mid-June.

The 2000 growing season will see an increased number of trapping locations, the addition of European corn borer phenology and improvements to the resources materials. New Jersey is joining the regional trap catch program, and new sites are being added in Pennsylvania, which will increase the total trap sites to approximately 215.

Phenology modeling (predicting the time of occurrence of specific life stages based on accumulated degree days) for the European corn borer will help provide advanced warning on the timing of both first and second generation European cornborer flight. The phenology models will be included with the time series. Resource materials have been developed with the goal of improving access to IPM information.

Many of the resources developed as part of this project were formerly only accessible through the county extension office. For example the Pennsylvania commercial vegetable production

recommendations, a ten-dollar purchase at the county extension office will also be available online at no cost.

Following are some additional resources available from this site:

•Vegetable insect pest sheets: Penn States pest sheets for vegetable insect pests found in Pennsylvania.

•Vegetable Gazette on-line: An on-line version of the popular horticultural magazine. This link includes access to back issues.

•IPM references: Some of the best and most recent IPM guides available.

•CDMS: A privately held corporation which provides pesticide labels and MSDA for most agricultural chemicals.

These educational resources along with the sweetcorn trapping network are accessible from the following site: <http://www.ento.psu.edu/vegetable/>

If you are interested in being involved in the trap capture program or have ideas as to how we can improve these resources, contact me, Chris Harding, at cxh402@psu.edu.

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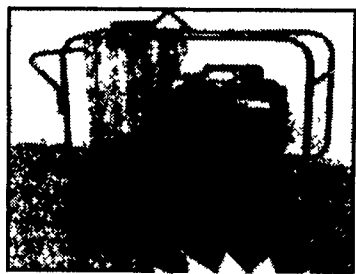
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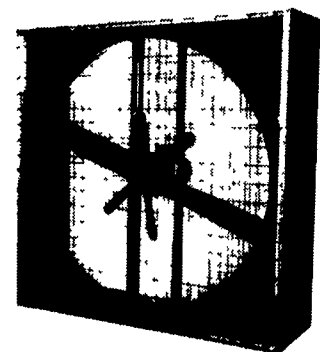
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