

C21-P

REGIONAL WEB-MAPPING OF SWEET CORN LEPIDOPTERAN PESTS IN THE NORTHEASTERN US

*Shelby J. Fleischer¹, Bruce Miller¹, Doug Miller² and Northeastern Entomologists

¹Department of Entomology, 501 ASI Building, Penn State, University Park, PA 16802

²Environment Institute, 2217 Earth-Engineering Sciences Bldg., Penn State, University Park, PA 16802

Pest monitoring is hard to develop in northeastern agro-landscapes due to farm and crop diversity, spatial segregation in urbanizing landscapes, and small size of many farms. We are establishing a regional human and information technology infrastructure for agricultural pest monitoring information in this landscape through linked GIS and Web technology ("web-mapping"), using sweet corn as a model system. In 2002, data came from VA (T. Kuhar & A. Herbert, VA Tech), MD (R. Bean, MD Dept. Ag), DE (J. Whalon & M. Spellman, U. DE), PA (~15 Extn. agents), NJ (K. Hollstrom, NJ IPM program), NY (A. Seaman NY IPM), MA (R. Hazzard, U. MA), CT, and ME (D. Handley, U. of Maine). An ASP application enabled web-based data entry from field locations throughout the region directly into MS Access relational databases. Delphi and MapObjects applications created maps and time-series graphics for each site. An automated web editor converted these to image (*.gif) and text (*.html) files, and hyperlinked all (~2,000 files per update in 2001) into "clickable maps" webpages. These showed regional views, with hot-links to times series graphics at each site. To improve spatio-temporal views at local and regional scales, and enable increased data resolution, we are now migrating to more real-time methods. Web-tracking software shows annual increases in user sessions accessing mapped views of insect pest pressure. Farmers can use this information for pest management planning and decision-making.