



Northern New York Agricultural Development Program News

PRESS RELEASE: February 7, 2013

Contacts: Cornell ASB Project Melissa Keller, cell: 540-808-6050, mdk236@cornell.edu
Publicist Kara Lynn Dunn, 315-465-7578, karalynn@gisco.net

NNYADP Uploads Primer for Managing Destructive Alfalfa Pest; Cornell Researcher to Receive Award for Developing Control Measure

Northern New York farmers are adopting an effective and inexpensive way to control a crop pest that can destroy an entire field of valuable dairy and livestock forage in one season. In March 2013, the Cornell University researcher who spearheaded the development of a biocontrol practice for controlling alfalfa snout beetle (ASB) will receive the Entomological Foundation Award for Excellence in IPM.

Cornell University entomologist Dr. Elson Shields conducted the foundational research into ASB, investigated potential control measures, designed a new greenhouse screening method, field-tested that protocol, and developed an easy-to-implement on-farm biocontrol protocol that uses nematodes native to New York to destroy the larvae of the ASB.

The farmer-driven Northern New York Agricultural Development Program (NNYADP), an agricultural research, outreach, technical assistance program for the six northernmost counties of New York state, provided long-term funding to develop a solution for ASB.

At 2013 crop meetings and agricultural events, farmers in the Northern New York region are receiving copies of the new Management of Alfalfa Snout Beetle primer.

The 7-page primer includes calculations of the cost of losing an alfalfa crop to ASB, which can be as high as \$487/acre plus the increased expense of buying feed to replace the lost forage, thereby increasing the cost of milk, beef, or livestock production.

To date, more than 72 farms in Northern New York have applied the nematodes on more than 154 fields in the six northernmost counties of New York State. The new primer will encourage more farmers to adopt the farmer-friendly practice.

The strategies section of the new primer includes information on how to successfully farm-raise the two types of nematodes that destroy the beetle in shallow and deep soil. A list of supplies is provided with how-to steps for rearing and applying the nematodes and timing their application to fields for maximum impact.

The primer also includes information on the ASB life cycle and a history of the battle to beat the beetle that was first detected in the U.S. at Oswego, NY, in 1896.

Treatment methods for ASB from 1939 to 1972 included use of poison bait and other insecticides; these methods were banned in 1972 due to environmental contamination concerns.

Shields' success with nematodes to control ASB is currently being applied elsewhere in New York state in trials to control pests in apple orchards and grape vineyards.

In March 2013 the Entomological Society of America will recognize Shields for a body of work that includes the ASB research as well as evaluation of the aerial movement of agriculturally-important biota including insects, herbicide-resistant weed seeds, plant pathogens and pollens using a fleet of more than 30 unmanned aircraft.

Shields is part of a Cornell University research team that is developing a two-prong control approach for coping with alfalfa snout beetle. Cornell Plant Breeders Dr. Donald Viands and Dr. Julie L. Hanson are seeing increasing success with the development of the ASB-resistant varieties, begun in 1996. The first ASB-resistant variety of alfalfa is expected to be available on a limited basis in 2013.

NNYADP-funded field trials at Sheland Dairy Farm in Belleville, NY, have provided critical side-by-side comparison data for the year-to-year ASB-resistant varieties successive breeding efforts since 2008.

Farmers guiding the Northern New York Agricultural Development Program, a research, outreach and technical assistance program for Clinton, Essex, Franklin, Jefferson, Lewis and St. Lawrence counties, identified ASB for attention by Cornell researchers in 1990. Researchers saw the first substantive success with the nematodes application with a farm-wide ASB population crash at the John Peck dairy farm near Carthage, NY, in 2002.

The Management of Alfalfa Snout Beetle primer is posted online under Field Crops Crop Pests at www.nnyagdev.org. -30-