

How Much is ASB Costing You?



Direct Costs of ASB

A more detailed economic plan is available and can be requested from Cornell University.

- In a **3-cut system, 4-year rotation**, ASB can cost a producer up to \$381/acre if 100% stand loss occurs.
- In a **4-cut system, 3-year rotation**, ASB can cost a producer up to \$487/acre if 100% stand loss occurs.

Indirect Costs of ASB



- Increased purchases of off-farm protein sources and other feed.
- Increased cost of milk production per cow.
- Quality grass forage production can require larger harvest equipment, more acreage, and more tile drainage due to the narrower harvest window and lower tonnage per acre.
- Impact on nutrient management plan.

Alfalfa Snout Beetle (ASB) Facts

ASB was introduced to the Port of Oswego, New York during the 1800s in shipping ballast. To date, ASB has been found in Wayne, Oswego, Cayuga (northern), Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex County. The insect infests more than 500,000 acres in northern New York and continues to be a severe pest of alfalfa.



ASB Life Cycle

Year 1: May – June

Adult beetles emerge and feed on alfalfa for 3 weeks to build up fat reserves for egg laying.

Year 1: June – October

Larvae feed on alfalfa plant roots.

Year 1: November

Larvae burrow deep into the soil for a full year. They become adults the following summer.

Year 2: April – May

Stand loss is seen and fields are patchy or barren.

Year 2: June – August

Larvae remain in hibernation but finish developing and turn into adults.

Year 2-3: September – May

Fully developed adults remain underground until emergence in April/May.

Cornell Recommendation: Managing ASB on Your Farm

Biological Control using entomopathogenic (insect-attacking) nematodes is currently the only effective and readily available method of ASB management. NY-native persistent nematodes are available for application on grower fields to reduce ASB populations. They require **2-4 years for full effectiveness** after a single application. Producers are now able to purchase ready to apply nematodes to their own fields. Producers also have the option to purchase starter cups and rear their own nematodes which they then apply to their own fields. To date, 67 farms have applied biological control nematodes on more than 200 fields covering 8,000-10,000 acres in six NNY counties.

Low to Moderate ASB Pressure

- Stream nozzle eleven ft (11') apart provides coverage to 16% of field in year 1.
- Coverage by nematodes in 1-2 years.
- *Cost \$7/\$13 acre

Moderate to Heavy ASB Pressure

- Stream nozzles six ft (6') apart provides coverage to 33% of field in year 1.
- Coverage by nematodes in 1-year
- *Cost \$15/\$26 acre

*Farmer reared nematodes versus purchasing from ready to apply biocontrol nematodes from Cornell University.

ASB-resistant alfalfa varieties require ASB populations be reduced with biological control prior to planting resistant alfalfa varieties.



Timeline to Establish Biological Control for ASB on Your Farm

- Determine if ASB population on your farm by taking a shovel and digging up plants in late October to look for larvae.



- **Report** ASB population to local CCE agent.
- **Decide which field(s)** to apply nematodes in the following spring. Recommend new seedings & 1st year production fields
- **Communicate with Shields Lab** at Cornell University to develop an application strategy.
- **Contact Tony Testa** once harvest date has been established so starter cups can be delivered or field cups used for application can be inoculated.
- **Arrange delivery** of field cups and coordinate application with CCE agent or commercial applicator.
- Using **non-chlorinated** water wash cups filled with nematodes then apply to field(s).

For More Information

Visit our website: www.alfalsnoutbeetle.org or contact your local Cornell Cooperative Extension Office.

Contact Shields Lab directly:

Tony Testa, 607-591-1493, at28@cornell.edu

Elson Shields, 607-279-1849, es28@cornell.edu



Cornell University
Cooperative Extension

Losing your alfalfa stands after one or two years of production?

Have you noticed mass migration of beetles on the road?



Noticing yellow, dead, or dying plants mid-Sept. thru Oct. of seeding year?



Losing alfalfa stands in years two and three and blaming winterkill?



YOU MAY HAVE ALFALFA SNOUT BEETLE!

