

Analysis

First Cutting: Treatment (harvest or spray) is recommended when **40% of the stem tips** show signs of feeding and live larvae are present and actively feeding.

Second Cutting: Sprays may be necessary if the larvae are present and limiting the regrowth of at least **50% of the new buds**.

Management Alternatives

Early harvest of alfalfa can provide effective control. Clean harvest the entire field.

Chemical control is sometimes necessary when you exceed threshold **and harvest is delayed** or when larvae attack **early in the second cutting**. For selection of an insecticide consult the Cornell Guide for Integrated Field Crop Management.

Always read the insecticide label for harvest and feeding restriction intervals. Don't lock yourself out of a timely harvest.

Implementation

Avoid leaving uncut alfalfa that may serve as **harborage sites**.

Document all actions taken.

Reevaluation

Recheck fields to evaluate how well your management plan worked.

Weevils are generally not a problem beyond the first few weeks after first harvest (early June).

For additional help contact your local Cornell Cooperative Extension Educator.



We develop sustainable ways to manage pests and help people to use methods that minimize environmental, health, and economic risks.

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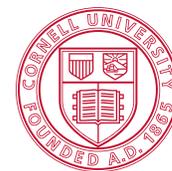
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Find this brochure online at:
<http://hdl.handle.net/1813/42375>

Find more information about IPM for Field Crops at:
nysipm.cornell.edu/agriculture/livestock-and-field-crops

Alfalfa Weevil

Management Guide



Cornell University
Cooperative Extension

Identification

Adults are light brown beetles with a long snout and a band of darker brown down the center of their back.

Females lay eggs in alfalfa stems or in henbit early in the spring.

Larvae are light green with white stripes down their back and a dark brown head. There are **four larval instars (or molts)**.

Larvae are the **chief cause** of damage.

Early feeding symptoms appear as small pinholes in the leaves.

Excess feeding causes dry matter yield loss and protein reduction.

Growers can **predict larval development** by monitoring **growing degree-days (GDDs)**. The warmer the temperatures, the faster the larvae development (see table).

Pupae are the dormant life stage of the weevil that occurs just before the adult stage. **Presence of numerous pupae** indicates larval feeding is declining.



Alfalfa weevil larval feeding injury to alfalfa terminal. Notice feeding pinholes (arrow). Photo: Whitney Cranshaw, Colorado State University, Bugwood.org.

Sampling

- Start **sampling the field** in early May (about 350 heat units; base 48°F). Repeat scouting every 7 days.
- Pick **50 stems randomly** throughout the field. Record the percentage of stems showing feeding in the top 3 inches.
- Determine **predominant weevil stage**.
- Check for signs of **parasitoids or diseased larvae**.

Degree days for peak occurrence (50%) of alfalfa weevil life stages

Stage or Event	Degree Days
Eggs hatch	280
First instar	315
Second instar	395
Third instar	470
Fourth instar	550
Cocooning	600
Pupa	725
Adult emergence	815
48°F base temperature	



Alfalfa weevil larvae. Photo: NYSIPM Staff.



Alfalfa weevil adult. Photo: NYS IPM Staff.



Alfalfa weevil adult. Photo: Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org.



Alfalfa weevil larva. Photo: Frank Peairs, Colorado State University, Bugwood.org.