

## Time for checking your alfalfa fields for weevils and webworm infestation

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There are two common insects, namely alfalfa webworm and weevil to look for in your alfalfa fields. We have been hearing a lot about abundance of alfalfa webworm moth in Colorado this year. Webworms tie up leaves with silken thread, creating a web, which protects the larvae while feeding. Webbed leaves are often visible in the alfalfa terminals.

Alfalfa weevil larvae feeding in the folded leaves can heavily damage stem terminals, but initial damage is not always clearly visible. The closed, overlapping foliage of the stem terminals should be unfolded to detect feeding damage. Third and fourth larval instars cause most of the economic damage, so initiating sampling at the peak occurrence of second instars should provide adequate sampling prior to economic weevil populations.

Field damage can be recognized on heavily infested stands as a grayish or frostlike appearance due to the dried defoliated leaves. At high weevil densities, foliage can be stripped; leaving only skeletonized and ragged leaf fragments and stems. Yield losses of 30 to 40 percent of the standing hay crop are possible under extreme population levels. Damage also may reduce hay quality due to loss of leaf tissue, leaving only the lower quality stems.

Damage to regrowth buds may occur when the plants break dormancy and after first cutting. Larval feeding on the regrowth after first cutting may be concentrated in strips coinciding with windrow locations, especially if the first cutting was taken early due to heavy weevil infestation and larvae survived under the windrows. Damage to regrowth may retard plant growth and result in yield reduction and encourage weed establishment.

**Management of the weevil:** Insecticide applications and early harvesting are the most common growing season management strategies. The simple economic threshold for a sweep sample is 20 larvae per sweep. The simple economic threshold for the stem sampling method is 1.5 - 2 larvae per stem. For calculating detailed economic threshold, check the High Plains IPM guide at <https://wiki.bugwood.org/HPIPm>.

**Cultural control:** A non-insecticide control measure for alfalfa weevils is an early first harvest if an economic infestation is not detected until late in the growth of the first cutting.

Rapid removal of hay will accelerate larval mortality due to desiccation by direct sunlight. An early first cutting tends to cure more rapidly because lighter windrows dry quickly, and forage quality is enhanced by higher crude protein and lower fiber content. Additional steps should be taken to ensure that surviving larvae do not cause economic damage to the regrowth. If larval survival under the windrows is high and baling is delayed (e.g., due to rainfall), damage to

regrowth may be exacerbated. Regrowth should be inspected at a height of one to two inches to determine larval density.

Early cutting may also provide a satisfactory control of alfalfa webworm because the larvae cannot survive on dried alfalfa forage. Alfalfa stubble and the new regrowth, especially under the windrows, should be scouted within 2 to 3 days after cutting to make sure webworms are not feeding on regrowth. Insecticide applications are rarely warranted webworms in the High Plains region. Effective products can be found the insect at the High IPM Guide: <https://wiki.bugwood.org/HPIP> if needed.

**Chemical control of alfalfa weevil:** If damage becomes unacceptable as harvest approaches, an early harvest or "rescue" insecticide treatment may be necessary. Use care in applying insecticide when alfalfa is approaching bloom: refer to the Pollinator Protection section for guidelines on minimizing insecticide contact of pollinators. Also, consider the waiting period before harvest for different insecticides. Generally, harvest or insecticide applications should happen before bloom if weevils are a problem. For effective products, check the High Plains IPM Guide at <https://wiki.bugwood.org/HPIP>.