Insect development has been accelerated in the high plains due to above average temperatures. Alfalfa weevils are now active in many alfalfa fields.

Most alfalfa weevils overwinter as adults and become active as temperatures increase. Adult alfalfa weevils are snout beetles approximately 3/16 of an inch long; they are light brown with a dark brown stripe from the head to about three-quarters down the back.

The females lay eggs a few days after emerging from over wintering sites. The females chew holes in alfalfa stems, laying from 5-20 eggs in each hole. Egg laying begins in April and extends through June. Each female will lay between 400 and 1,000 eggs.

New larvae hatch and emerge from stems after 7-14 days, depending on temperature. Weevil larvae are about 1/20 of an inch long when they first hatch. They range in color from cream, to pale green, and are curved with shiny black heads. A white stripe running down the middle of the back may be visible and becomes more distinctive as the larva matures.

Larval development is completed in about three to four weeks, with the peak damaging larval populations often coinciding with the first cutting of the crop. Fully-grown larvae move into the plant crowns and soil debris to pupate.

Adults emerge from the cocoons in 7-14 days depending on temperature. They feed on the alfalfa for a short time before entering a summer diapause or aestivation, reducing their activity for the rest of the summer.

Alfalfa weevils feed on first cutting alfalfa as larvae and regrowth after the first cutting as adults (and sometimes larvae). Alfalfa weevil feeding can cause severe losses to yield and quality of the first cutting. 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. Heavily infested stands have 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 30-40 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.

Fields should be monitored for alfalfa weevil feeding over the next few weeks. Damage consists of small holes on the newest leaflets near the stem tips.

Once the alfalfa is about 4-6 inches or so in height, take a net sample to establish whether weevils are present. If they are, carefully cut some stems at ground level (30-50 per field, from various spots) and shake the stems against the side of a five-gallon bucket. This will dislodge the weevils and make it easy to average the number of weevil larvae per stem. At current prices it would likely be profitable to treat if average counts are one to one and a half weevils per stem.

The High Plains IPM website has more biology and management information (including labeled insecticides) on the alfalfa weevil http://wiki.bugwood.org/HPIPM:Alfalfa_Weevil .

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