COMMON FORAGE LEGUME INSECTS OF INDIANA

1. ALFALFA WEEVIL, Hypera postica (Gyllenhal). This weevil feeds on the first cutting of alfalfa and may retard the growth of the second. Damage starts in late winter or early spring when green foliage is present. The young yellowish-green larvae feed first in the growing tips and developing buds, then shred the foliage, giving infested fields a greyish cast. As larvae mature, they become more green and appear as pictured. All larvae have shiny black heads and remain on the plants throughout the larval stages. The pupal stage is passed in a round, net-like, cocoon on plants or in soil debris. Both larvae and adults are present after first cutting, and both feed on the new growth. Remaining larvae soon pupate then change into beetles, which are inactive during summer but return to the fields in fall. Eggs for the new generation are laid in fall, winter and spring. Adults and mature larvae are each about 1/4 inch long. For control, see E-38.

2. CLOVER LEAF WEEVIL, Hypera punctata (Fabricius). Clover leaf weevil larvae look much like alfalfa weevil larvae, except they are slightly larger (about 1/2 inch long) and their heads are brown, not black. They are usually present in clover and alfalfa fields during early spring and may appear to be causing extensive damage. But in most seasons, they become infected with a fungus disease and die. The larvae feed mainly at night and hide in soil and plant debris during the day.

3. SWEETCLOVER WEEVIL, Sitona cylindricollis (Fahraeus). The sweetclover weevil is the principal cause of sweetclover failures in Indiana. It comes out of hibernation in early spring, and as soon as young stands become available, it moves into the field and devours the plants. The larval stage feeds on roots of sweetclover but causes no apparent damage. Weevil populations are maintained in wild sweetclover along roadsides and in other uncultivated areas. The adult, about 3/16 inch long, does not damage other crops.

4. VARIGATED CUTWORM, Peridroma saucia (Hubner). The varigated cutworm prefers non-grass crops and can cause extensive spring damage in forage legume fields. It belongs to the “climbing cutworm” group, and crawls about over the plant to feed on foliage. The worms feed mainly at night and hide under clods and in soil debris during the day. They are rather large, reaching about two inches long when full grown. Other species of cutworm may also damage forage legumes.

5. GRASSHoppers, Family Acrididae. Grasshoppers overwinter as eggs in uncultivated soil, including forage legume fields. When these eggs hatch, the young grasshoppers usually remain in the field to feed, since forage legumes are among their favorite food plants. Damage can be extensive, especially in years of high grasshopper populations. For control, see E-19.

6. GREEN CLOVERWORM, Hyypena scabra (Fabricius). The green cloverworm is nearly always present in clover and alfalfa fields, at least in small numbers. When abundant, however, the worms can eat enough foliage to give plants a ragged appearance. Young worms, which crawl in a looping motion, are yellowish-green but later turn darker green with distinct white lines running the length of the body.

7. POTATO LEAFHOPPER, Empoasca fabae (Harris). This tiny insect, which jumps when disturbed, is the common cause of alfalfa yellowing. The first cutting is not usually affected, but subsequent cuttings may be seriously damaged, especially on sandy soil and in dry years. Infestations reduce both quality and quantity of the crop. Leafhopper-caused yellowing always starts in a wedge-shaped area at the leaf tip, whereas yellowing from nutrient deficiencies or plant diseases are first seen elsewhere on the leaf. Leafhoppers may also attack ladino clover, causing reddish discoloration rather than yellow. For control, see E-36.

8. MEADOW SPITTLEBUG, Philaenus spumarius (Linnaeus). The meadow spittlebug is an early-season pest of both clover and alfalfa. Damage is caused by the nymphs, which suck plant juices and make the spittle masses. Heavy infestations will stunt or otherwise prevent normal plant growth. Most of the damage occurs early in the growing season. Adult spittlebugs may be very abundant at haymaking time but do little feeding and cause little damage. For control, see E-28.

9. SPOTTED ALFALFA APHID, Therioaphis maculata (Buckton). The spotted alfalfa aphid seldom occurs in sufficient numbers to cause damage in Indiana. However, it is a very serious pest of alfalfa in certain areas of the southwestern United States.

10. PEA APHID, Acrystosiphon pisum (Harris). This aphid is commonly found in alfalfa fields. It may occur in great numbers and cause considerable damage. Like other aphids, the pea aphid feeds by sucking plant juices and secretes the sweet sticky substance “honeydew.”

Current Control Information

The information and color illustrations presented here are designed to help you correctly identify some of the more common insects that attack forage legume crops. These insects and the problems they cause do not change, but methods of dealing with them do. Therefore, Purdue University extension entomologists have prepared the following publications to keep you up to date on the latest recommended control methods and materials:

E-19 Grasshoppers
E-28 Meadow Spittlebug
E-36 Potato Leathopper on Alfalfa
E-38 Alfalfa Weevil

Single copies of these publications, revised periodically, may be obtained by Indiana residents from their local county Cooperative Extension Service office or from Agricultural Communication Media Distribution Center, 301 South 2nd Street, Lafayette, IN 47901-1232, Phone: 765-494-6794.

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COMMON FORAGE LEGUME INSECTS

For safe and effective use of insecticides, always identify the problem correctly.

1. Alfalfa weevil adult, and larvae and damage
2. Clover leaf weevil larva
3. Sweetclover weevil and typical damage
4. Varigated cutworm
5. Grasshopper
6. Green cloverworm
7. Potatoe leafhopper (greatly enlarged) and leafhopper damage to alfalfa
8. Meadow spittlebug and nymphs
9. Spotted alfalfa aphid
10. Pea aphid

Prepared by Extension Entomologists of the North Central States in cooperation with the Federal Extension Service, U.S. Department of Agriculture