



# Protecting Legume Hays from Meadow Spittlebug

The meadow spittlebug sucks the sap of many crops and weeds. It has been most damaging to legume hays—alfalfa, clovers and trefoil. Though often present, it rarely is of concern in other crops in Michigan. The removal of the sap by the spittlebug reduces the vigor of the plant. The damage appears as “unthrifty” stands and, when severe, as stunted plants. The presence of the frothy masses of the spittlebug on the stems will easily identify spittlebug as the cause of the slow growth.

The spittlebug spends the winter in groups of about seven eggs that are located near the ground on many plants, especially on grain stubble. The eggs begin to hatch in the spring. The nymphs (young) move to a suitable plant and suck the plant sap. They excrete bubbles that form a spittle-like mass around their bodies. The spittle apparently gives the nymph some protection from the sun, drying and natural enemies. The nymph is wingless, yellow and rather stout, has short bristlelike antennae (feelers) and moves very slowly. Newly hatched nymphs are tiny. Fully grown nymphs are about  $\frac{1}{4}$  inch long. The nymphs are most abundant during June but can be found well into the summer.

The nymphs change to winged adults starting about mid-June in lower Michigan. The adults are about  $\frac{1}{4}$  inch long and rather stout with short, bristlelike antennae. Their color ranges from uniform pale gray to black with only a gray margin on the wings. The typical markings are grayish, reddish or brownish mottling. The adults suck the sap of many plants and can be found everywhere during the summer. The adults are often common in crops but not a threat to yields. In September, the females cement groups of eggs in tight places on many plants, often under the leaf sheaths of grains and grain stubble. The adults persist until heavy frost.

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## Control

Fields of legume hays should be checked for spittle masses starting in late May. Spray with an insecticide if there is one or more spittle masses per stem. Full coverage is needed for effective control. Apply 10 gallons of mixed spray per acre on small plants (less than 6 inches tall) and 20 gallons per acre on taller plants, using ground equipment. The insecticides currently recommended for spittlebug control are given in the table.

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### Insecticides Recommended for Control of Meadow Spittlebug.

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Insecticide	Amount per acre	Limits <sup>a</sup>
Trithion	1 pt 8 lb/gal EC	PHI 28 days. Maximum 1 application per cutting.
Thiodan	$\frac{2}{3}$ pt 3 lb/gal EC 1 pt 2 lb/gal EC	PHI 21 days.
Lorsban	1 qt 4 lb/gal EC	PHI 21 days. Maximum 1 application per cutting and 4 applications per season.
Imidan	2 lb 50% WP	PHI 7 days. Maximum 1 application per cutting.
Supracide	2 qt 2 lb/gal EC <sup>b</sup>	PHI 10 days. Maximum 1 stubble and 1 foliar spray per cutting.
Guthion	1 lb 50% WP 1 qt 2 lb/gal EC <sup>b</sup>	PHI 16 days. Maximum 1 application per cutting.
malathion	1 qt 5 lb/gal EC	PHI 0 days. Malathion applied in the evening is especially recommended where bees may be exposed.

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<sup>a</sup>PHI (pre-harvest interval) is the minimum time allowed between application and harvest or other use of the crop.

<sup>b</sup>This formulation is a restricted-use pesticide that may be purchased and used only by a certified pesticide applicator.

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