

Alfalfa seed—Armyworm

Includes

Bertha armyworm (*Mamestra configurata*)

Western yellowstriped armyworm (*Spodoptera praefica*)

Pest description and crop damage Caterpillars are 1.5 to 2 inches long when mature. Color varies considerably within a species and within larvae in a field. They may be velvety black - with two prominent and several fine, bright yellow stripes on the sides - to plain green. Both species may be found on foliage during the day as well as night.

Management—chemical control

1. *Bacillus thuringiensis kurstaki* (Deliver) at 0.25 to 1.5 lb product/a. PHI 0 days. REI 4 hr. Most effective on small caterpillars; use highest recommended rate for fully developed ones. A spreader-sticker may improve performance.
2. gamma-cyhalothrin (Proaxis) at 0.01 to 0.015 lb ai/a. PHI 1 day for forage, 7 days for hay. REI 24 hr. Do not exceed 0.06 lb ai/a per cutting or 0.015 lb ai/a per cutting. Do not apply on ground within 25 ft of an aquatic habitat, 150 ft if applied by air, or 450 ft if applied from ULV.
3. lambda-cyhalothrin (Warrior) at 0.02 to 0.03 lb ai/a. PHI 1 day for forage, 7 days for hay. REI 24 hr. Do not exceed 0.03 lb ai/a per cutting or 0.12 lb ai/a per season. Do not apply on ground within 25 ft of an aquatic habitat, 150 ft if applied by air, or 450 ft if applied from ULV. Do not apply while bees are active. Advisable to move bee shelters for 2 to 3 days after application.
4. malathion 8EC at 1.0 to 1.25 lb ai/a. PHI 0 days. REI 12 hr. Not effective below 65°F. Not recommended for fields pollinated with leafcutting bees.
5. permethrin at 0.05 to 0.2 lb ai/a. PHI 0 days at rates equal to or less than 0.1 lb ai/a, 14 days at rates greater than 0.1 lb ai/a. REI 12 hr. Do not reapply at less than 7-day intervals or exceed 0.2 lb ai/a per cutting. If used during bloom, remove bees from field for 3 days.
6. zeta-cypermethrin (Mustang) at 0.035 to 0.05 lb ai/a. PHI 3 days for cutting or grazing, 7 days for harvest. REI 12 hr.

Do not reapply at less than 7-day intervals or exceed 0.05 lb ai/a per cutting or 0.15 lb ai/a per season. Do not apply on ground within 25 ft of an aquatic habitat, 150 ft if applied by air, or 450 ft if applied from ULV.

Note Protect pollinating insects. See "How to Reduce Bee Poisoning from Pesticides," in this handbook.

Alfalfa seed—Pea leaf weevil

Sitona lineatus

Pest description and crop damage Adults are grayish brown, slender weevils about 0.2 inch long, with a short snout and three parallel lines on the thorax. Adults notch leaf margins. They occasionally defoliate new seedlings, causing serious stand loss.

Management—chemical control

No products are registered specifically to control this pest. However, most products applied to control alfalfa weevil, cutworms, and armyworms also control this pest.