

Canola and Mustard XVI-5

Flea Beetles

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Flea beetle adult.

Identification (and life cycle/ seasonal history)

Overwintered adult flea beetles fly to volunteer rapeseed, canola or mustards when spring temperatures reach 68 °F. The shiny black beetles are 1/10 inch in length and have the characteristic of jumping from a plant when disturbed. Eggs are laid in the soil and hatch into larvae that feed on the roots of the canola/mustard plant. Larvae feed for 3-4 weeks, pupate and emerge as adults during July to early August. Emerging adults feed on any green plant tissue and then move to protected areas surrounding the field to overwinter. There is one generation per year.

Plant Response and Damage

Adult flea beetles can cause serious plant damage, seedling death and stand loss by feeding on the cotyledons and first true leaves of emerging seedlings. Adults feed on the underside of the leaf causing numerous small round holes or pits. Damage is most severe when plants are stressed, particularly during drought. Seedling canola plants cannot regrow if above ground plant parts are completely eaten. A systemic seed treatment such as imidacloprid is recommended. If a seed treatment is not used, then treat with an appropriate foliar insecticide when 25% of the cotyledons show severe pitting or tissue loss. Once plants have developed true leaves, damage may be tolerated except under extremely high beetle densities or drought conditions.

Management Approaches

Monitor newly emerged seedlings until plants are well established. Relatively low populations may cause damage when plants are newly emerged or during cold weather when plants are growing slowly.

Cultural Controls

Early planting and establishment of canola can prevent significant injury to young plants by flea beetles migrating to fields after the first true leaves are fully expanded. Remove weeds from field edges and control volunteer canola crops.

Check Prosper 400

Product List for Flea Beetles

Pesticide	Product/Acre	Preharvest interval, Remarks
Gaicho 600F	10.24 – 25.6 fl oz/cwt	Seed treatment. For use by commercial seed-treaters only.
Poncho 600	3.84 – 10.23 fl oz/cwt	Seed treatment. Rate depends on flea beetle pressure or where extended control is needed. All treated seed must be colored. Commercial treaters only. Replant restrictions.
Helix Xtra or Lite	23 oz/cwt.	Seed treatment. May be planted to wheat or canola as soon as necessary, other crops after 30 days.
Capture 2EC ^{R,1}	2.1 – 2.6 fl oz	35 days. 12 hr REI. Do not apply more than 5.12 oz /A /season. Do not make applications less than 14 days apart. See label for minimum gallonage.
Proaxis ^{R,1,2}	1.92 - 3.84 oz	7 days, 24 hr REI. Do not apply more than 0.72pt/A/season. See seasonal use rates for gamma and lambda cyhalothrin.
Pyrethrins ¹	2 – 16 oz (Evergreen EC 60-6) 4.5 – 18 oz (Pyganic EC 5.0)	0 Day, 12 hr REI . No less than 2 GPA by air or 10 GPA by ground. Buffer spray to pH 5.5 – 7.0.
Lambda-cyhalothrin ^{R,1,2}	1.92-3.84 oz (Warrior with Zeon) 1.92-3.84 (Lambda T)	7 days, 24 hr REI. Avoid application when bees actively foraging by applying early morning or evening. Do not apply more than 0.72 pt/A /yr. See seasonal use rates for gamma and lambda cyhalothrin.

¹ Label allows chemigation,

² Generic active ingredient, several formulations available, see labels for rates

^R Restricted use pesticide

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Categories: Canola, Mustard, Insects, Flea beetles

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