Cucurbits

Darkling Beetles

Scientific Names: *Blapstinus* spp., *Caelus* spp., and others

(Reviewed 12/09, updated 12/09)

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DESCRIPTION OF THE PESTS

Darkling beetle adults are from 0.13 to 0.25 inch long (3 to 6 mm) and vary from black or bluish black to rusty brown. Do not confuse beetles (Tenebrionidae) with predatory ground beetles (Carabidae), which prey on various soil dwelling pests. Darkling beetles generally have clubbed antennae whereas carabids do not. Darkling beetles may be hidden by dust or a thin layer of soil. Larvae are cylindrical, wirewormlike, soil-inhabiting worms that are light yellow to dark brown and range from 0.03 to 0.33 inch (1–8 mm) in length. They are often referred to as false wireworms.

DAMAGE

Darkling beetles are generally not a problem unless large populations build up when the plants are in the seedling stage. Young plants may be girdled or cut off at or below the soil surface. After the plants reach a height of 5 to 6 inches, darkling beetles are usually not a problem. However, further feeding may occur on flower blossoms during bloom, on the undersides of leaves, and on the netting of mature melons. They can also bore into fruit where it rests on the ground.

MANAGEMENT

Keep fields and ditches free of weeds. Water barriers can aid in stopping migrating populations. Reduce organic matter in soil by fallowing. Treat whenever beetles are observed feeding on plants, flowers, or fruit. Also treat when beetles are observed moving into cucurbits or melons from fallow or alfalfa hay fields.

Common name (trade name)	Amount/Acre	R.E.I.+ (hours)	P.H.I.+ (days)

The following materials are listed in order of usefulness in an IPM program, taking into account efficacy, pesticide registrations, information related to natural enemies and honey bees, and environmental impact. Not all registered pesticides are listed. Always read label of product being used.

A. CARBARYL

5% bait	20 lb	12	see label

MODE OF ACTION GROUP NUMBER[1]: 1A

COMMENTS: Use suitable ground or aircraft equipment that provides good distribution. Repeat application of bait may be necessary.

B. MALATHION

(Malathion) 8E	1.75 pt	12	see comments

MODE OF ACTION GROUP NUMBER[1]: 1B

COMMENTS: Do not apply unless plants are dry. PHI on cucumber and squash is 1 day.

\+ Restricted entry interval (R.E.I.) is the number of hours (unless otherwise noted) from treatment until the treated area can be safely entered without protective clothing. Preharvest interval (P.H.I.) is the number of days from treatment to harvest. In some cases the REI exceeds the PHI. The longer of two intervals is the minimum time that must elapse before harvest.

1 Rotate chemicals with a different mode-of-action Group number, and do not use products with the same mode-of-action Group number more than twice per season to help prevent the development of resistance. For example, the organophosphates have a Group number of 1B; chemicals with a 1B Group number should be alternated with chemicals that have a Group number other than 1B. Mode of action Group numbers are assigned by IRAC (Insecticide Resistance Action Committee). For additional information, see their Web site at http://www.irac-online.org/.

* Permit required from county agricultural commissioner for purchase or use.

PUBLICATION

UC PEER REVIEWED

UC IPM Pest Management Guidelines: Cucurbits
UC ANR Publication 3445
Insects and Mites
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