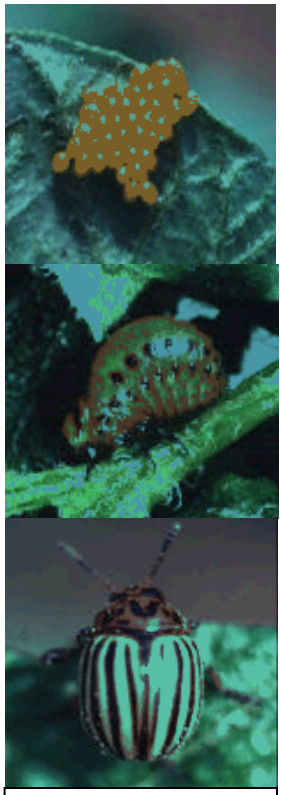
Potato Pest – Colorado Potato Beetle

fact sheet

What is the Colorado Potato Beetle?

The Colorado potato beetle (*Leptinotarsa decemlineata)* is a common pest across North America and Eurasia. Colorado potato beetle (CPB) adults (10 mm long) have rounded bodies and yellow wings with 10 very distinctive black stripes running lengthwise down the hardened forewings. Larvae have a "humpbacked appearance" and have 2 rows of black spots running down both sides of the body. Eggs are yellow to orange and are found in clusters of 20-35 on the undersides of leaves.



Colorado Potato Beetle at egg, larval, and adult stages[1]

What is the Damage Caused?

If left unmanaged, CPB populations can cause yield losses averaging 30%. The CPB is a foliage pest, attacking both leaves and stems, and high populations can completely strip plants of foliage. While CPB prefers potatoes, they also infest tomatoes, pepper, tobacco, and eggplants.

How to Manage CPB in Potato?

CPB populations can develop insecticide resistance rapidly; always alternate pesticides with different modes of action (MOA) when managing this pest. Cultural management is an essential aspect of CPB control.

Cultural and Biological Management:

- Crop rotation away from the previous year's site can reduce CPB numbers, delay infestation, and reduce the number of eggs laid per beetle. Delaying infestation allows plants to withstand injury without significant effects on crop yield. Try for a minimum of 800 meters separating fields for rotation.
- If rotation is less than 800 meters, but on a different piece of land, grow the 10 closest rows to last year's field as a "trap" crop. The beetles will infest those rows most heavily, and pesticides can be applied to only those rows.
- Grow a thick cereal crop (wheat) the following year on previously infested fields. This will inhibit CPB flight, expose them to predators, and starve them.

Pesticide Treatment Options:

- Imidacloprid (Admire 2f*) at 730-1680 ml/ha (10-23 fl. oz/acre). Mix with enough water for complete coverage. Neonicotinoid. Pre-harvest restrictions vary depending on potato produce – see product label for specific guidelines. Wait 12 hours after application before reentering the crop.
- Diazinon 4EC at 0.6-1.0 kg/ha (8.5-14 oz/acre). Organophosphate. Pre-harvest restrictions vary depending on potato produce – see product label for specific guidelines. Wait 24 hours after application before reentering the crop.
- *Beauvaria bassiana* (Mycotrol). Affects all larval and adult stages, once applied it can continue to propagate and provide a level of CPB control throughout the remainder of the season. Spray when hatching occurs in 20-25% of the egg masses. Sensitive to high temperatures - works best between 21 and 27°C.

For more treatment options visit www.ipm.ucdavis.edu

*Commercial name. The authors make no endorsement towards commercial brands mentioned in this document nor are the absence of other brand names an implication of our disapproval.

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Reference: Diseases, Pests and Disorders of Potatoes, Stuart Wale, But Plat, Nigel Cattlin 2008
Maine Potato IPM Program – University of Maine Cooperative Extension http://www.mainepotatoipm.com/ipmfactsheets/cpb.pdf
T. Jude Boucher, Vegetable Crops IPM Coordinator, University of Connecticut Cooperative Extension http://www.hort.uconn.edu/IPM/veg/htms/cpbipm.htm

Photo Credit: [1]Maine Potato IPM Program, University of Maine Coop. Ext.

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