

Flea Beetle Adult

Flea Beetle Larva

Taken from the *Pacific Northwest Insect Management Handbook*. G. Fisher, J. DeAngelis, C. Baird, R. Stolz, L. Sandvol. A. Antonelli, E. Beers. Extension Entomology, Oregon State University, Washington State University, and the University of Idaho.

FLEA BEETLE CONTROL PROGRAM

Tuber flea beetle control Foliage applications (preferably) with a trainling boom type of sprayer) are recommended for control of the tuber flea beetle. This type of control is directed against the adult beetles, killing them before they can deposit their eggs. A number of foliar applied chemicals are registered on potatoes for controlling this beetle. See **Table of Registered Insecticides** for specific chemical recommendations (many of these will control other flea beetles as as as tuber flea beetles).

If needed, the initial foliage application usually is made when 1/2 to 2/3 of the potato plants are showing above the ground. Applications should be repeated as weekly or 10-day intervals or when adult beetles reach or exceed 10 beetles per 50 sweeps of a standard 15 inch sweepnet. In the Willamette Valley, Oregon, observations indicate that sweep samples may be unreliable for potatoes just emerging through the ground. As few as 2 beetles per 25 sweeps on borders of fields of young, emerging potatoes may mean an economic infestation. Occasionally, border sprays may be all that are necessary on just-emerging potatoes.

Flea beetles can become a severe problem in second-year fields. Therefore, crop rotation is encouraged.

A number of soil-applied materials at both planting and preplant are registered for control of tuber flea beetle larvae and adults. Some also are registered for control of other flea beetle species. See **Table of Registered Insecticides** for specific recommendations.

A number of insecticides are registered for use on potatoes to control aphids. Repeated applications of these materials as practiced for aphid control also should reduce flea beetle damage.

Precautions in the use of foliage applications of some specific insecticides

- 1. The use of carbaryl may induce aphid or spider mite buildup on potato foliage.
- 2. Endosulfan should not be permitted to drift onto pasture or forage crops.

3. Carbaryl is harmful to bees, but drift onto pasture or forage crops should not be serious from the standpoint of residues in meat and milk.

4. The possibility of insecticide drift onto food crops on which a particular material does not have registration should be kept in mind.

Western potato flea beetle and tobacco flea beetle control Control measures specifically for the bronze colored western potato beetle or the brownish tobacco flea beetle should not be necessary unless adult beetle populations are excessively high (more than 50 beetles per 50 sweeps of an insect net) or when the foliage shows excessive adult feeding. If control measures are necessary, follow the suggested recommendations for the tuber flea beetle or use Imidan at the rate of 1 lb active ingredient per acre.

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