

Potato Flea Beetle

Epitrix spp.

Plant Pest Information Note

What is it?

Epitrix spp. is a biological grouping of flea beetles which are known to feed upon and attack members of the *Solanaceae* family. This grouping includes the following species *Epitrix tuberis*, *Epitrix cucumeris*, *Epitrix similaris* and *Epitrix subcrinita*. All of these four different beetles are known to attack potato plants and tubers, *Solanum tuberosum*. The main reason that these four species are grouped together is because they are very similar. Due to these similarities the exact geographical distribution of *Epitrix spp.* is unknown. It is known that *E. tuberis* has become widespread within Western North America and *E. similaris* has been found in both Spain and Portugal. The adults are approximately 2mm long and hop like fleas as way of movement (they can also fly). The picture above shows *Epitrix similaris* on the left and *Epitrix cucumeris* on the right.



Why should we be worried about it?

The potato flea beetles are considered by many to be one of the most serious pests threatening the entire EPPO region today. All four species have shown they can exist within different climates, from a Mediterranean climate (Spain) to a temperate climate (USA and Canada). The adults of the potato flea beetles

feed on the leaves of the plants causing serious damage. This reduces the ability of the plant to photosynthesize which in turn affects the size & quality of the tubers and plant health. The adults then lay their eggs in the soil. The larvae then burrow into the tuber and/or the roots and begin to feed. This feeding causes significant damage to the tuber which may become unviable for sale, and the destruction of the roots can result in plant death.

Potatoes showing symptoms of *Epitrix spp.* which had originated in Portugal, were discovered in Ireland in 2010. The picture above left shows the tunnels left by burrowing of the larvae of Potato flea beetle. The picture on the right shows the adult beetles feeding on the leaves of a potato plant; note the feeding holes that look as if they have been shot out.



What are its hosts?

The host range of this organism is known to include members of the *Solanaceae* family.

Botanical Name **Common Name**

Solanaceae Tomato & Potato family

What are its symptoms?

Due to the fact this pest and its larvae are so small it is crucial to keep an eye out for the relative symptoms of the pest. Adults feed on the leaves of the plant and leave holes which look like small shot wounds. The larvae tunnel and burrow into the roots and/or the tubers and leave conspicuous looking trails through them. The picture on the right shows a close up of the larvae of *Epitrix* spp.



How does it spread?

This pest can travel over short distances by flight but the main method of dispersal is the international trade of infested tubers.



The picture above shows larvae of *Epitrix* spp. feeding on a potato tuber.

Action in the event of suspect cases

This pest is under review at EU level and staff of the Horticulture and Plant Health Division are regularly inspecting tubers in dispatch warehouses around the country. If you see suspicious symptoms please contact either your local plant health inspector or the Division Headquarters at the number below.

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Department of Agriculture, Fisheries and Food,
Backweston Campus, Young's Cross,
Celbridge, Co. Kildare
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Further information and symptoms on the pests named in this article can be viewed on the website of the European and Mediterranean Plant Protection Organization (EPPO) by clicking on the links below.

All Photographs are courtesy of EPPO except *Epitrix* larvae courtesy of FERA.

[Epitrix tuberis - EPPO - Data Sheet](#)

[Epitrix cucumeris - EPPO - Data Sheet](#)