

Integrated Pest Management c of the Pine Weevil

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The Large Pine Weevil

- Scientific name: Hylobius abietis
- Adults feed on the bark of conifer seedlings and can severely damage and kill unprotected seedlings.
 Important reforestation pest causing
- Important reforestation pest causing high economic losses.
- Today the only successful protection against damage in Ireland is pesticides.



PW-IPM Project

A new project evaluates alternative methods of seedling protection based on scientific and grey literature and stakeholder experience. The **aim of the project** is to get a comprehensive picture of the options available against pine weevil damage in Ireland.

Integrated Pest Management (IPM)

IPM takes advantage of all possible plant protection methods: **cultural, chemical, physical and biological.** Applicable methods are carefully considered based on information about the pest-plant-system and specific local conditions. Selected methods should cause

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minimal ecological disturbance and pose minimal risks for human health while being economically justifiable. The use of IPM leads to more sustainable pest management in the face of chemical-resistant pests and a reduced use of chemical pesticides.

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Silvicultural practices

Make conditions unsuitable for pine weevil, for example: • Plant larger stock

- Soil preparation (exposing mineral soil)
- Brash bundling (remove alternative food source, breeding material)

Physical protection

Prevent access to seedlings

- Stem coats (sand and glue, wax, etc.)
- Barrier guards (tubes around the stem)

Chemical protection

- Lethal and non-lethal effects
 Insecticides (acetamiprid, cypermethrin, etc.)
- Feeding deterrence
- Artificially induced defences

Biological protection

- Reduce pine weevil population • Nematodes (infest larvae)
- Fungi
- Parasitoids, ants, predators etc.



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Pictures by F. Fedderwitz, C. Hellqvist, P. Lillis and R. Earl

