

Pest profile – Black vine weevil

Scientific name: *Otiorhynchus sulcatus* (Fabricius, 1775)
Taxonomic position: Insecta; Coleoptera; Curculionidae
Common name: Black vine weevil



Hosts: Vine weevil is not usually a pest of short-term potted herbs, but can be a serious pest on those kept for longer periods e.g. stock plants. Herbs are more at risk if grown in nurseries where alpines, hardy broadleaved evergreen plants such as camellia, rhododendron, euonymus and begonias are particularly prone to damage and other ornamental crops such as cyclamen, fuchsia and sedums, primulas and impatiens are susceptible to attack, but most plants in pots are at risk.

Threats: They cause most damage to herbaceous plants, particularly those growing in containers, where root growth is restricted. Severe infestations can result in complete root destruction and plant death.

Distribution and spread: The Black vine weevil, *Otiorhynchus sulcatus* is native to UK and Europe and has leapt to the top of the worst plant pests in nursery stock list since the insecticide Aldrin was banned in 1989. It is also common in North America and Australia.

Climate change: Warmer, drier summers would favour the insect as warmer conditions mean that they can reproduce all year round so all stages of the life cycle can be present at all times.

Control: Vine weevils have been increasing in significance to gardeners over the past few decades, due to the increased use of ornamental containers and container grown plants from nurseries. It is necessary to carefully examine for vine weevil larvae, and to reject if any are found. Strict nursery hygiene will restrict the sources of vine weevil and infested plants should be removed and disposed of promptly and carefully.

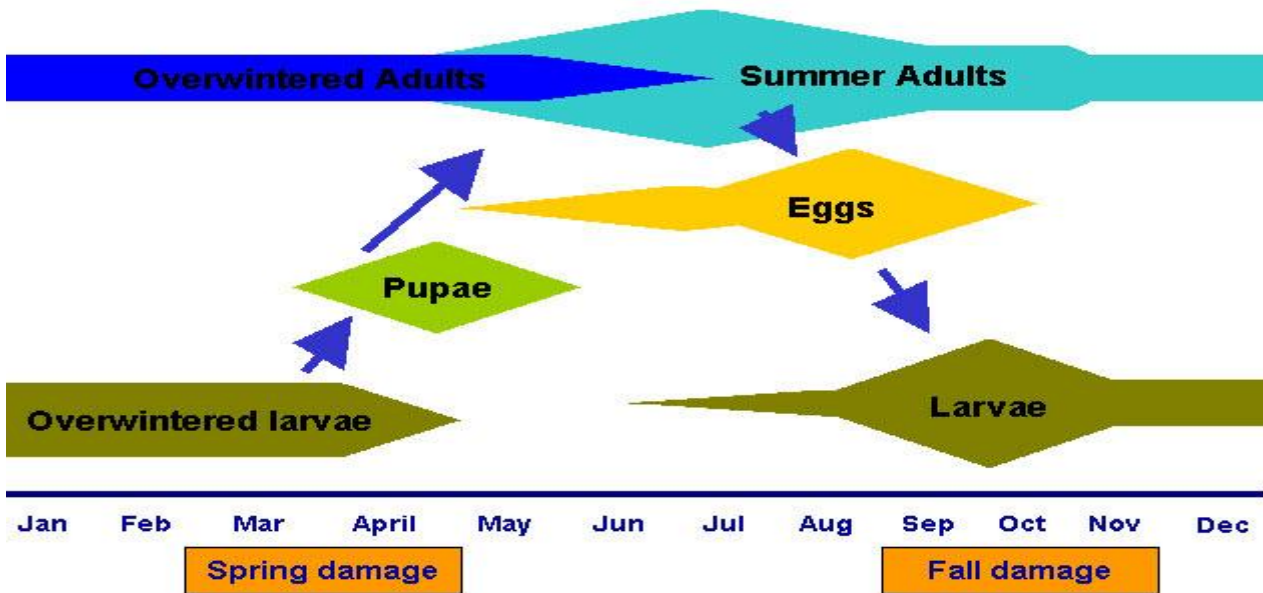
Monitoring: Symptoms of adult feeding can be seen on leaf margins beginning in June. The nocturnal adults can be spotted at night with a torch. Traps can also be made by placing fold of burlap around the base of the plant, or by creating a pitfall trap by burying a paper cup at soil level. Traps should be checked at least twice a week. It is important to determine when the first adults are emerging so that appropriate control measures of chemical and biological control agents can be taken before they begin to lay eggs (2-3 weeks after emergence).

Life Cycle:

The adult is a large wingless black weevil with a rough body surface and yellow speckling on its back. Vine weevil adults are all female and produce fertile eggs without the need for mating. The white, spherical eggs turn brown after a few days and hatch into larvae after 2-3 weeks. They emerge from the pupa stage in late spring and after feeding on plant material for 21 to 45 days they are ready to lay between 500 to 1600 eggs over a one to two month period.

The adult weevil is matte black with fused wing covers, and is unable to fly but are very good walkers able to climb sheer surfaces. It feeds at night on the outer edges of leaves, causing the leaves to have a notched margin. Grubs live below the soil surface, and feed on roots and cambium at the base of the trunk.

Life Cycle of Black Vine Weevil (Moorhouse et al., 1992)



The IMPACT project, with partners Forest Research in Wales, Swansea University and the National University of Ireland, Maynooth is looking at improved pest control measures. Top of the agenda for the *Integrated Management of forest Pests Addressing Climate Trends (IMPACT)* team is assessing how changing climate will influence the damage caused by pests and pathogens. The project is part funded by the European Regional Development Fund through the Ireland – Wales Programme (INTERREG IVA) and Natural Resources Wales. For more information log on to:

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