



Information

DOVE
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Narcissus Fly

Large narcissus fly

The adult is about 13 mm long, has a hairy body and looks like a small bumble bee. The colour of the body varies considerably: It may be black, banded with yellow, buff or orange, or one of these colours may predominate. Hover flies, which belong to the same family as the narcissus flies but are beneficial, have glossy bodies with few hairs.

The large narcissus flies may be on the wing from early May until July; they are active on bright sunny days and have a characteristic whining hum when in flight. Each female lays about 40 eggs, one to a bulb, on the foliage below the soil surface.

On hatching, the maggot (larva) crawls down the side of the bulb and burrows into the base through one of the root canals. After tunnelling in and around the base plate for a while, it works its way upwards to the fleshy scale leaves surrounding the growing point. By the time it is fully grown it has eaten out a large cavity. In the early spring the fully grown maggot, which may be as long as 18 mm, moves either to the neck of the bulb or into the soil and then pupates. The pupal stage lasts about five or six weeks then the adult emerges and there is only one generation a year.

Small narcissus fly

The adults are about 6 mm long, shining black with white crescent-shaped marks. The first adults emerge at about the same time as the large narcissus flies, in late April or early May, and the females lay their eggs in groups of 10 or more, on or near diseased or damaged bulbs.

When the maggots hatch, they enter a bulb in the region of the 'nose' or at any point where it is damaged. They work through the bulb and finally destroy it completely. In July most of the maggots pupate and produce another generation which infests new bulbs, but some may spend the whole summer feeding, then remain in or near the bulbs during the winter and pupate in the following spring.

Treatment of growing crop

In trials, good control has sometimes been obtained by applying systemic granular insecticides, such as Yaltox, to the crop during the early stages of larval invasion, before there has been any visible injury to the bulbs. The optimum time of treatment may vary from year to year. Treatment with Yaltox is subject to an Off Label approval, which must be complied with. Copies of the approval are obtainable from PSD Tel: 01904 640500. Although not yet fully proven an application of Admire as a drench to the rows before foliage dieback may prevent maggot growth within the bulb.

Physical methods of discouraging egg laying, such as crop defoliation, surface cultivation, covering the rows with fine netting or non-woven fleece during May and June, or early lifting and windrowing, are partially effective but involve labour and some risk of reduction in bulb yields.

Precautions after lifting

After lifting, bulbs are often left in the fields for a while to dry. At this stage, especially if there is much soil on them, the bulbs are very attractive to small narcissus flies. Protection can be obtained by using some form of covering, such as empty trays, sacking or even dried bulb foliage.

Inspection of bulbs

During sorting and grading, all soft bulbs should be discarded. Bulbs should never be replanted without some form of treatment. Those attacked by small narcissus flies, in addition to harbouring other pests and diseases, will never grow satisfactorily and should be destroyed by burning. When rouging for stem nematode or other disorders, plants attacked by narcissus fly should also be removed.

Control of maggots in bulbs

The maggots of any of the narcissus flies are easily killed by hot-water treatment. Treat the bulbs for one hour at 44.4°C, to kill fly maggots.

Read the label before you buy – use pesticides safely

Dove Associates shall in no event be liable for any loss or damage caused by the use of products mentioned in this document.

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