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LARGE NARCISSUS FLY

In partnership with



THE UNIVERSITY OF
WARWICK



LARGE NARCISSUS FLY FORECAST UPDATE 23rd MAY 2014

Large narcissus flies overwinter as fully-fed larvae within the narcissus bulbs in which they developed. In March-April, the larvae move out of the bulbs and burrow through the soil until they find suitable sites in which to pupate. The adults emerge from the soil in May or June. Once they have emerged, adult large narcissus flies need warm sunny days to mate and lay their eggs. Provided these conditions occur, egg laying will start 4-5 days after emergence at the earliest. Mating, and therefore egg-laying, will be delayed if air temperatures are lower than the activity threshold, which is close to 20°C. **Since the weather has been warm, egg-laying may have started in the south-west and may start soon in other locations in central England.** The period between egg-laying and egg hatching, after which the larvae invade bulbs, will be about 9-11 days depending on temperatures.

The female flies lay their eggs in the soil close to narcissus bulbs. After several days the eggs hatch and the newly hatched larvae burrow through the soil and enter the bulbs via the basal plate. The larvae feed and grow inside the bulbs, destroying their centres. Although several larvae may enter a single bulb, only one survives, and by the onset of winter is fully-grown and about 15-20 mm long.

The forecasts predict the timing of narcissus fly activity and in particular the timing of fly emergence from the soil in the spring. They do not predict the number of insects present in the crop, as this depends on the size of the local fly population. For control purposes, we consider that the pest has become active when 10% of the insects have emerged/laid eggs and that the peak of activity has occurred when 50% have emerged/laid eggs.

Region	Forecast 10% emergence	Forecast 50% emergence
Cornwall (Newquay)	18 May	30 May
Wellesbourne, Warwick	19 May	29 May
Norfolk (Norwich)	25 May	4 June
South Lincolnshire (Boston)	26 May	4 June
Scotland (Blairgowrie)	9 June	17 June