

Carrot sclerotinia monitoring

15 August 2019

Key points

- Another 2% of sclerotia have germinated at the Nottinghamshire monitor site, indicating continued presence of airborne spore inoculum.
- Canopy closure, senescent foliage and physical damage from heavy rain are all factors which will increase the risk of sclerotinia infection.

Actions


- Crops should be monitored frequently for sclerotinia symptoms.
- Protectant fungicide applications are advised, ideally started just before canopy closure. Repeat treatments at up to two week intervals, using fungicides with different active ingredients.

Overview

This is the sixth report this year for sclerotinia monitoring in two carrot crops. New sclerotial germination continues at the Nottinghamshire site, indicating the presence of airborne ascospores of sclerotinia. The Suffolk site had no germination (see chart below) despite rain. There has been further localised heavy rain in the last week, so crops should be checked for physical damage and senescent leaves, both of which are routes for infection by sclerotinia. Clipping foliage on the sides of beds when foliage starts to fall over, but before any disease symptoms are seen, is a good strategy for reducing infection by sclerotinia. For at-risk crops receiving fungicide treatment, ensure that the coverage reaches stem bases and root crowns. After that, repeat treatments at up to 14 day intervals are usually advised, following product label instructions and ensuring that different fungicide active ingredients are used in alternate sprays, or in mixtures where permitted. Reducing spray intervals to 10 days may be advisable if crop canopies stay wet. Alternaria infection is favoured by warm weather and wet leaf surfaces, so it may be helpful to select sclerotinia fungicides which are also active against Alternaria infection.

Weather conditions

Both sites were about 1°C cooler on average last week compared to two weeks ago, with average regional temperatures last week of around 17-18°C. Both sites had significant rain last week: 27mm in Nottinghamshire (East Midlands average was 22mm, compared to 11mm the previous week) and 14mm in Suffolk (Eastern region average was 17mm, compared to 9mm the previous week). Relatively cool, unsettled weather is forecast over the weekend, turning slightly drier and less windy next week.

NOTTINGHAMSHIRE SITE	SUFFOLK SITE
Var Norfolk, drilled 30 April 2019	Var Nairobi, drilled week 24 June 2019
	
12 August, carrot canopy, ground cover 100%	12 August, carrots at 7-8 leaf stage. Ground cover 80-90% within beds
	
12 August, carrot canopy close up	12 August, carrots at 7-8 Leaf stage
<p>Comments</p> <p>Soil surfaces have stayed damp enough with sunny and cool phases between heavy showers and strong winds. A further 2% of sclerotia have emerged in the carrots over the past 7 days taking the total to date to 30% emerged. Canopy growth has been steady over the week and soil moisture levels remain quite high. Fungicide applications are being applied every 7 days, tank mixed as required with foliar nutrients and with insecticides targeted at the 2nd generation of carrot fly adults.</p>	<p>Comment</p> <p>Rain has been intermittent but despite some dry spells, the soil has stayed damp. No germination has been recorded yet at this site, which is not unusual for this area, although the soil surface conditions this year appear to be appropriate for germination. The canopies between rows within beds have not yet closed over completely.</p>

Sclerotia Germination (refer to website map for exact locations)

Depots of sclerotia are being monitored near Mansfield, Nottinghamshire and Herringswell, Suffolk
Sclerotia collected from infected carrot crops the previous year were shallow-buried at both sites, in winter in nearby wheat crops and at drilling in the monitor carrot crops.

