

Carrot sclerotinia monitoring

15 August 2018

Key points

- Sclerotia have germinated at the Nottinghamshire site; airborne spores are likely to be present
- Rain showers or irrigation may stimulate further germination activity where soils are moist
- Sclerotinia infection is a risk in carrot crops at canopy closure and if any senescent foliage is present

Actions

- Monitor crop ground cover progress and check foliage especially at the base of plants, as senescence or physical damage are a route for infection by sclerotinia
- Ensure that a protectant fungicide is applied just before canopy closure
- Additional fungicide treatments should be planned at 2-3 week intervals after the pre-canopy closure treatment if soils stay moist and sclerotia continue to germinate

Overview

This is the 9th report for carrot sclerotinia risk monitoring at two sites. Last week the UK had widespread rain which has stimulated sclerotial germination at the Nottinghamshire site and apothecia have appeared in the monitoring grids. Rain or irrigation will encourage germination of sclerotia, but soil surfaces need to stay moist for at least a few consecutive days for this to happen. Sclerotial germination onset and progress is an indicator of inoculum production within an area. For carrot crops with low ground cover and young leaves, sclerotinia infection risk is low. But many crops are now reaching canopy closure and may already have some senescent foliage, especially at the base of plants, and this is an infection route for sclerotinia. Fungicide treatment should be considered. Fungicides targeted at sclerotinia will also have some activity against other diseases such as alternaria or mildew, which are also likely to develop in damp senescent foliage.

Weather conditions

The past week started off with warm dry weather, but this came to an abrupt halt from 9th august onwards. A band of heavy showers and prolonged rainfall crossed the UK, with a mean of 23 mm of rain during the week, compared to the 13 mm normally expected. The east, south east and South West saw particularly heavy rain. Temperatures also dropped back in line with the long-term average for this time of year, to 16°C. The rain stopped harvest in most regions from mid-week onwards. The week ahead will see a return to dry weather, although temperatures will be lower than in previous weeks.

<p style="text-align: center;">NOTTINGHAMSHIRE SITE var Nairobi, drilled 25 May 2018</p>	<p style="text-align: center;">SUFFOLK SITE var Nairobi, drilled 3 June 2018</p>
	
<p>15 Aug, Notts carrots, canopy closure</p>	<p>15 Aug, Suffolk carrots, 7-8 leaf stage</p>
	
<p>15 Aug, a single apothecium in the monitoring grid</p>	<p>15 Aug, close up of 7-8 leaf stage. Ground cover 60-80% in majority of the field</p>
<p>Comments Emergence of apothecia over the last 7 days means that sclerotial germination is underway and is now at 1%. The crop canopy is complete and looks very healthy with no disease visible. Germination is expected to increase with further rainfall or irrigation.</p>	<p>Comments Despite irrigation there has been no germination of sclerotia and consequently no apothecia are to be seen. Carrot plants are growing but rate of progress is relatively slow, with plants at 7-8 leaves and not quite at full canopy closure yet.</p>

Sclerotia Germination (refer to website map for exact locations)

Depots of carrot sclerotia are being monitored near Mansfield, Nottinghamshire (sclerotia buried 25 May in carrot crop and in nearby wheat crop) and Bury-St-Edmunds, Suffolk (sclerotia buried 12 June in carrot crop and in nearby wheat crop).

