

Carrot sclerotinia monitoring

24 July 2019

Key points

- There are a few new apothecia this week in the Nottinghamshire monitor crop which has received irrigation, so airborne spore inoculum is likely to be present.
- Some crops are now at, or near, canopy closure and senescent foliage may start to develop. This will increase the risk of infection.

Actions

- **Crops should be monitored for for senescent foliage.**
- **Protectant fungicides are strongly advised ahead of canopy closure.**

Overview

This is the third report in 2019 for sclerotinia monitoring at two carrot crop sites, near Mansfield in Nottinghamshire and Herringswell in Suffolk. This week there are a few new apothecia at the Nottinghamshire site, but none at the dryer Suffolk site (see chart below). The presence of new apothecia indicates the presence of airborne sclerotinia spores which cause infection, particularly via senescent foliage at stem bases, or via damaged stems. Thunderstorms and heavy rain may cause physical damage to plants, and sclerotinia will also infect green stems or leaves via wounds. Nearby susceptible crops, e.g. winter or spring oilseed rape, peas, potatoes, green beans, should be checked for sclerotinia infection as this will be a potential source of inoculum. Apothecia can be difficult to find in crops when a specific search is made, but infection symptoms are easier to spot. Symptoms on all susceptible crops will appear as visible white mycelium, often woolly in appearance, possibly with black sclerotia already forming on or within stems. For at-risk crops near canopy closure (apothecia or infection seen nearby, and/or history of sclerotinia on-farm) fungicide applications are advised before canopy closure, ensuring that the coverage reaches stem bases and root crowns.

Weather conditions

Both sites are in regions which had rainfall last week: 16 mm in Nottinghamshire (East Midlands average was 18mm) and 19 mm in Suffolk (Eastern region average was 20mm). But the Suffolk carrot monitor site in particular had a dry soil surface this week, which will delay sclerotial germination. The coming weekend is forecast to have cooler temperatures, with a chance of rain. Next week the forecast is for some low pressure and there may be some rain showers in central and southern regions, but these areas are predicted to be dryer than normal.

BASF plc Crop Protection

P.O. Box 4 – Earl Road – Cheadle Hulme – Cheadle – Cheshire SK8 6QG
Telephone: 0161 485 6222 – Fax: 0161 485 2229

NOTTINGHAMSHIRE SITE	SUFFOLK SITE
Var Norfolk, drilled 30 April 2019	Var Nairobi, drilled week 24 June 2019
	
22 July, carrots at 8 leaf stage. <i>Ground cover xx</i>	23 July, carrots at 4 leaf stage
	
22 July, carrots 8 leaf stage. Ground cover 95%+	23 July, carrots 4 leaf stage. Ground cover <10%
<p>Comments Conditions have been hot and dry here, and the apothecia have dried out and are harder to see. Canopy cover has increased rapidly with irrigation being applied every 7 days. At this site, only around 2mm of rain fell in the last week. Aphid numbers in the crop are still very low. A fungicide program is underway in all the main crop carrot fields.</p>	<p>Comments The apothecia seen previously in the adjacent wheat crop have now died away. With little rain and dry soil at this site, no sclerotial germination has been seen yet in the carrot crop. The crop is growing fast despite dry conditions. The site has had temperatures of 25°C or more in the last week. These very warm temperatures will delay sclerotial germination and infection of crops, as the temperature optimum for sclerotinia is around 10-20°C.</p>

Sclerotia Germination (refer to website map for exact locations)

Depots of sclerotia are being monitored near Mansfield, Nottinghamshire and Herringwell, 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.

