Carrot *Sclerotinia* Monitoring

15 July 2016

Overview

This is the week 6 report and infection risk is now increasing, so protectant sprays need to be planned. Plants continue to grow well and are at 7-8 leaf stage at the Nottinghamshire site and 5-6 leaf stage at the Cambridgeshire site. At the Nottinghamshire site there has been more rain, and sclerotial germination has increased again over the last week. By contrast, the soil at the Cambridge site is dry and there has been no new germination. Where soils are moist, sclerotinia spores are very likely to be airborne now and will infect any carrot crops at a susceptible stage, which is when they are near or at canopy closure, or dead leaves are present. The current risk of sclerotinia infection is now increasing and protectant fungicide applications should be planned now.

Weather conditions and carrot growth stages

As seems to be usual recently, the weather last week was unsettled with above average rainfall (16 mm), with the highest rain in the north west (33 mm), but 6-7 mm in south east and south west regions. Average air temperature was 16°C, two degrees warmer than the previous week.

Over the weekend of 16-17 July, temperatures could be mid-20s °C. However, an Atlantic low pressure area is currently forecast to be moving in next week, bringing cooler weather and rain to northern areas. In the south, there will be higher pressure with warm temperatures but there may be occasional showers.

Regions

Cambridgeshire and East Anglia

Carrots var Bangor are now at the 5-6 leaf stage (Fig 1 and 2) and there is still a large proportion of bare ground. Dry soils have slowed the germination of sclerotia in the nearby wheat crop, now at 38%, same as last week (Fig 5). Germination of sclerotia buried in the carrot field has not started and no germination is expected while the soil is dry.

Nottinghamshire and E. Midlands

The crop var Nairobi is at the 7-8 leaf stage (Figs 3 & 4). There has been further germination of sclerotia in the carrots this week. Most areas including the carrot site have recorded around 20 mm of rain over the past 7 days, keeping soil moisture deficits low. Crop growth has been quite good over the past week with a few warmer spells of weather. Fungicide applications are now underway to protect against both sclerotinia and alternaria. Many crops appear quite pale as a result of the

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

higher than normal rainfall and consequently foliar nutrients are being applied at the same time as fungicides. Control of 2nd generation carrot fly adults is also about to start next week.

Photos



Fig. 1. 12 July, Cambridgeshire site carrot field, cv. Bangor sown 19 May 2016, 5-6 leaf stage.



Fig. 2 12 July, Cambridgeshire site carrot plants, cv. Bangor sown 19 May 2016, 5-6 leaf stage.

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



Fig. 3. 13 July, Nottinghamshire site carrot field, cv. Nairobi, sown 3 May 2016: carrots at 7-8 leaf stage.

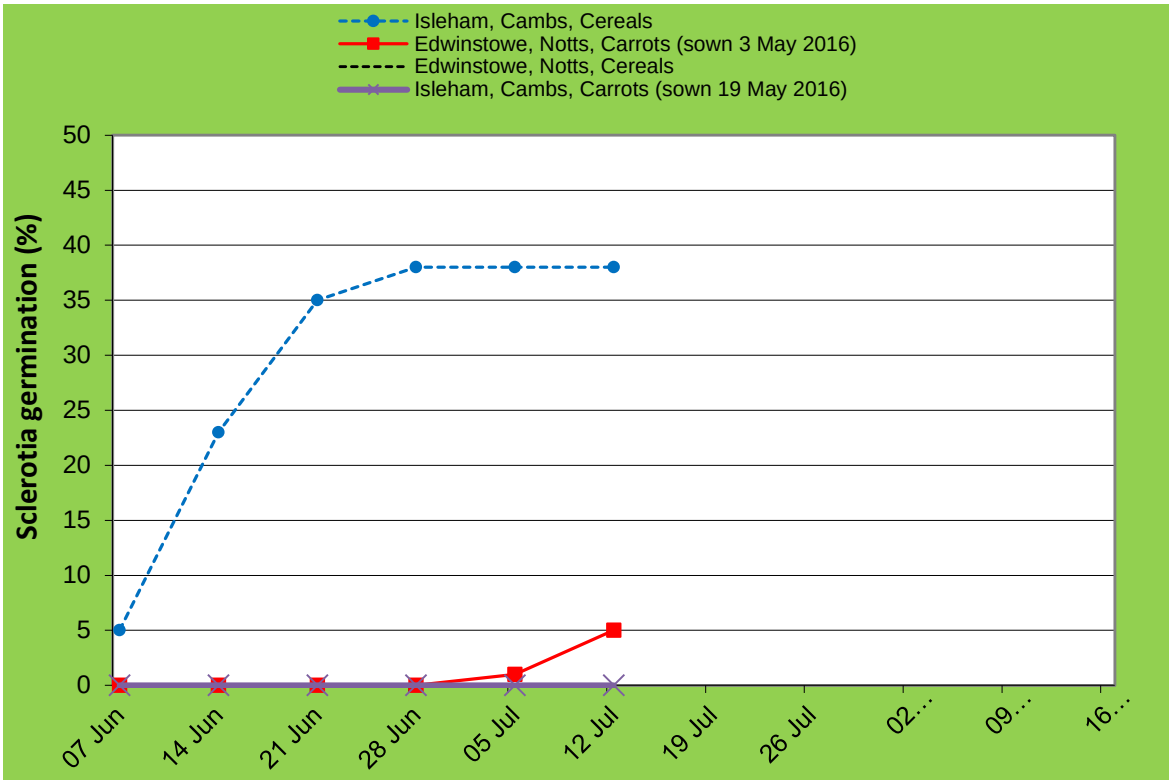


Fig. 4. 13 July, Nottinghamshire site carrot plants, cv. Nairobi, sown 3 May 2016: carrots at 7-8 leaf stage.

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

Fig 5. Sclerotial Germination (refer to website map for exact locations)

Depots of carrot sclerotia are being monitored near Edwinstowe, Notts and Isleham, Cambs. At both of the sites, depots of carrot sclerotia are being monitored in winter cereals and in main crop carrots. This allows the effect of spring cultivations on sclerotial germination timing to be taken into account.



Key points

Germination of sclerotia continues in monitor carrot crops in Nottinghamshire and in the associated Cambridgeshire wheat crop. This indicates active airborne spore release, and is likely to continue where soils stay moist. So there is a risk of infection in carrots where canopies start to close over, and protectant fungicides are needed. Where there are senescent leaves, these will also be susceptible to infection by sclerotinia.

Actions

- Fungicide applications should be considered now to protect the leaves and bases of plants, as many crop canopies are now nearly meeting across rows or within beds, and in many areas there is most soil which favours sclerotial germination.
- Sclerotina will infect dying or damaged leaves, so if the crop has senescent cotyledons or canopy damage, a protectant fungicide treatment should be considered.
- Additional fungicide applications should be planned at 2-3 week intervals after the pre-canopy closure treatment, to continue protection of foliage. Ensure that products with different modes of action are used, to reduce the risk of development of resistance of sclerotinia to the active ingredients.

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