Carrot *Sclerotinia* Monitoring

18 June 2015

Overview

Carrots are now growing well across the county. Most areas recorded 35–60 mm of gentle rain last Saturday, which soaked in well without causing crop damage or soil erosion problems. Winged aphids continue to migrate into carrot crops and are being treated with insecticides. Post emergence weed control applications are being applied as required.

There is still no germination recorded for sclerotia of the pathogen *Sclerotinia sclerotiorum* at the two BASF carrot monitor fields. Sclerotia germination results in fruiting bodies (apothecia) that release airborne spores which can infect carrot plants. Where soil surfaces remain moist, sclerotial germination will occur in winter cereals and other arable crops as well as carrots. Germination of sclerotia in carrot fields can occur a month from sowing, provided soil surfaces stay moist. The current risks in carrots are low.

Weather conditions and carrot growth stages

Towards the end of the week the weather looks set to be dry and bright for most areas, but with the potential for some thundery showers across Scotland. Into the weekend, southern and eastern regions should remain mostly dry, but an area of weak pressure moving across the North could cause some showery conditions for northern and western areas. Into next week it will be warm and mainly dry, with above average temperatures forecast in the south.

Soil temperatures are warm enough for germination of sclerotia but many soils are now dry. Germination requires soil surfaces to be moist for a few consecutive days.

Regions

Cambridgeshire and East Anglia

The Cambridgeshire monitoring site has dry soil this week, and the carrots are at the 3-4 leaf stage with ground cover about 5%. There is no germination yet of sclerotia buried on 11 May in the crop sown on 1 May. Temperatures are warm enough, so sclerotia could start to germinate now but only if soil surfaces become moist for several days. There is no germination yet in the nearby sclerotia grid in winter cereals (sclerotia buried December 2014). Fig 1 shows the field on 17 June, and Fig 2 is a close-up photo of the same crop on 17 June showing the 3-4 leaf stage.

Nottinghamshire and E. Midlands

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The monitor site crop is very clean at present, at the 3-4 leaf stage with just the odd volunteer potato which is being removed by hand in the next few days. There is no germination yet of sclerotia buried on 8 May in the crop (sown 21 April). There is also no germination in the nearby sclerotia grid in winter cereals (sclerotia buried December 2014). Fig 3 shows the crop on 15 June; Fig 4 is a close-up photo of the carrots on this date, with 3-4 leaves.

Photos



Fig. 1. 17 June, Cambridgeshire site carrot growth, cv. Nairobi sown 1 May 2015: 2-3 leaf stage.



Fig. 2. 17 June, Cambridgeshire site carrot growth, cv. Nairobi sown 1 May 2015: 2-3 leaf stage.

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Fig. 3. 15 June, Nottinghamshire site carrot growth, cv. Nairobi sown 21 April 2015. Carrots are at the 3-4 leaf stage.

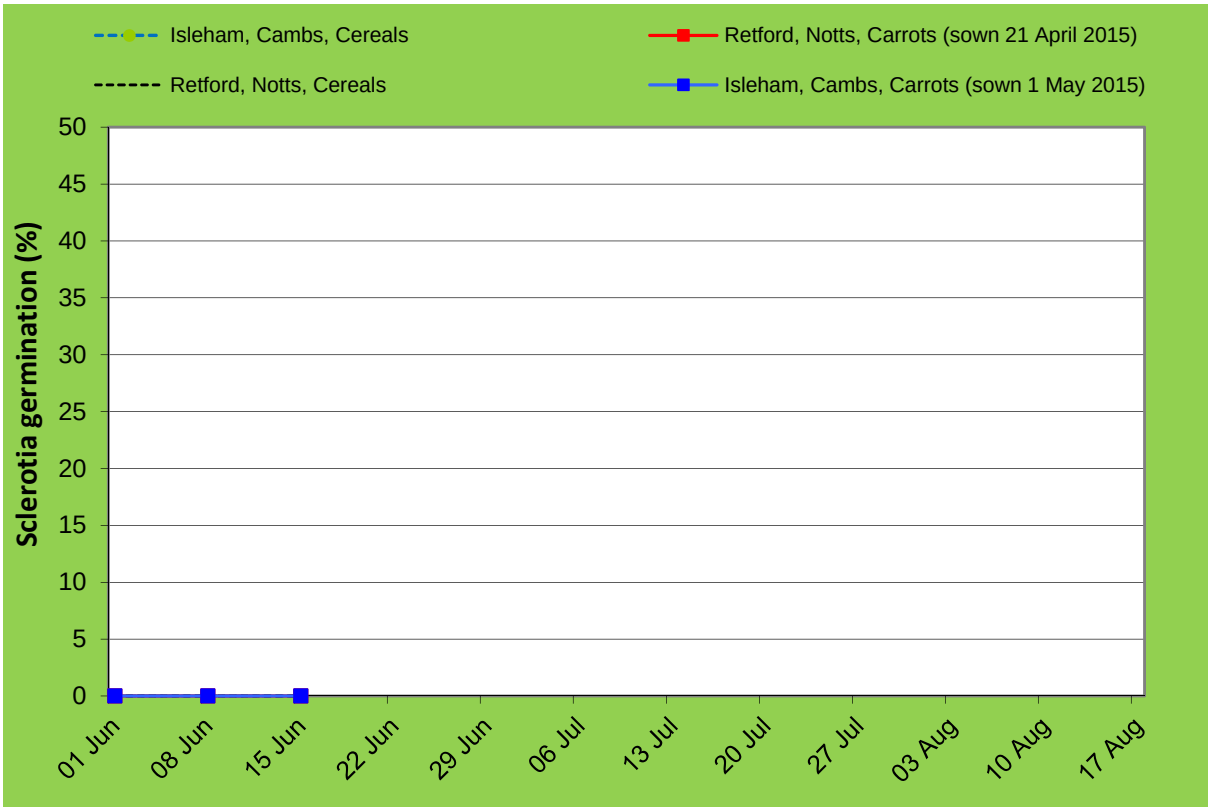


Fig. 4. 15 June, Nottinghamshire site carrot growth, cv. Nairobi sown 21 April 2015: carrots are at the 3-4 leaf stage.

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Sclerotia Germination (refer to website map for exact locations)

Depots of carrot sclerotia are being monitored near Retford, 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

No germination of carrot sclerotia is evident in winter cereals or carrots. There is sclerotinia activity in winter oilseed rape at the moment in some regions, but infection risk to carrot crops is currently low.

Actions

Most main crops are still at the seedling stage with low ground cover. No fungicides are required at this early stage, unless cavity spot is present.

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