

United Oilseeds & AHDB Joint Seminar Networking lunch

Thursday 21 February 2019

United Oilseeds & AHDB Joint Seminar 2019

Welcome and introduction

Chaired by Andrew Cragg, United Oilseeds

United Oilseeds & AHDB Joint Seminar 2019

OSR disease decision support

Catherine Garman

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Outline

- AHDB WeatherHub
- BYDV tool
- Sclerotinia forecasting
- Phoma threshold and forecasting



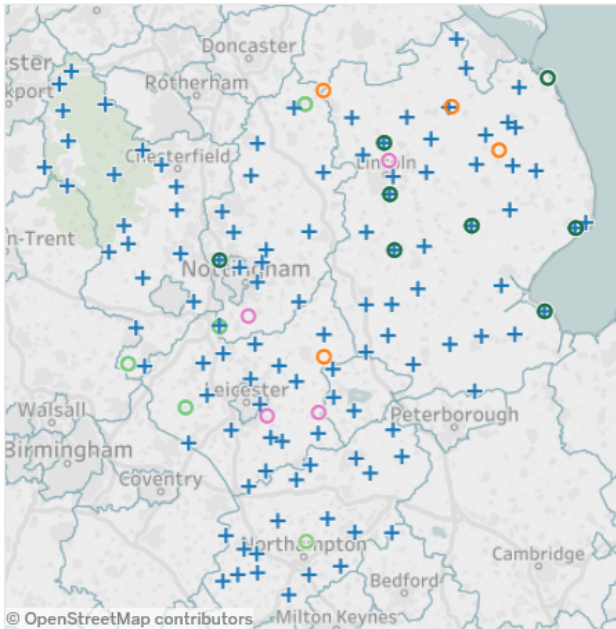
WeatherHub

Guide

The AHDB WeatherHub collates and renders weather data from various sources (MetOffice, Agrii, Environment Agency, SEPA) as well as signposting to weather data available online from other sources (e.g. COSMOS-UK, FARMING connect, Weathercast). Hover over a symbol on the map, then click the link at the bottom of the pop-up to open the external weather data in a new browser window. Data is updated daily, just drag the time slider to the right to include current date. Environment Agency raingauge data may occasionally be incomplete for several days; incomplete data are indicated by a paler shade of blue. Hover over a datapoint to see the number of datapoints currently

Region

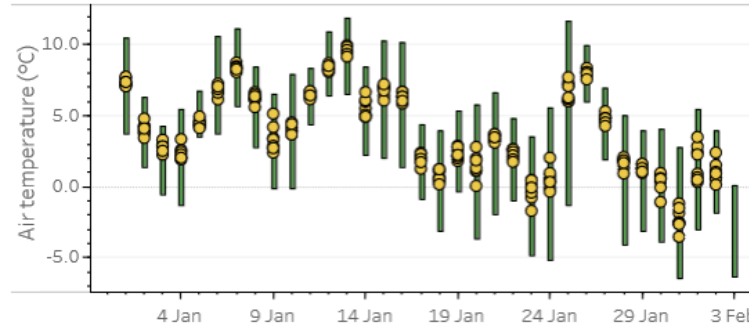
East Midlands



Source: Agrii, CEH (COSMOS-UK, external), EnvAgency, MetOffice (daily obs), MetOffice (occasional obs), Weat

Period

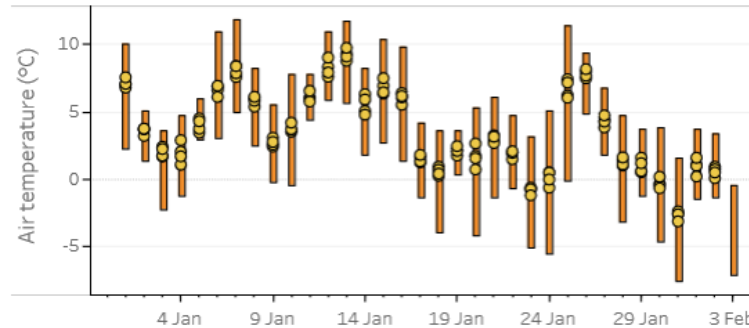
01/01/2019 — 03/02/2019



MetOffice measure

Air temperature

Daily range
Station average

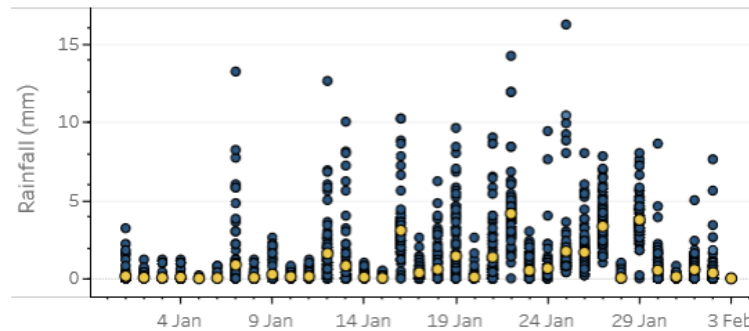


Agrii measure

Air temperature

Total (mean) rainfall

22.90



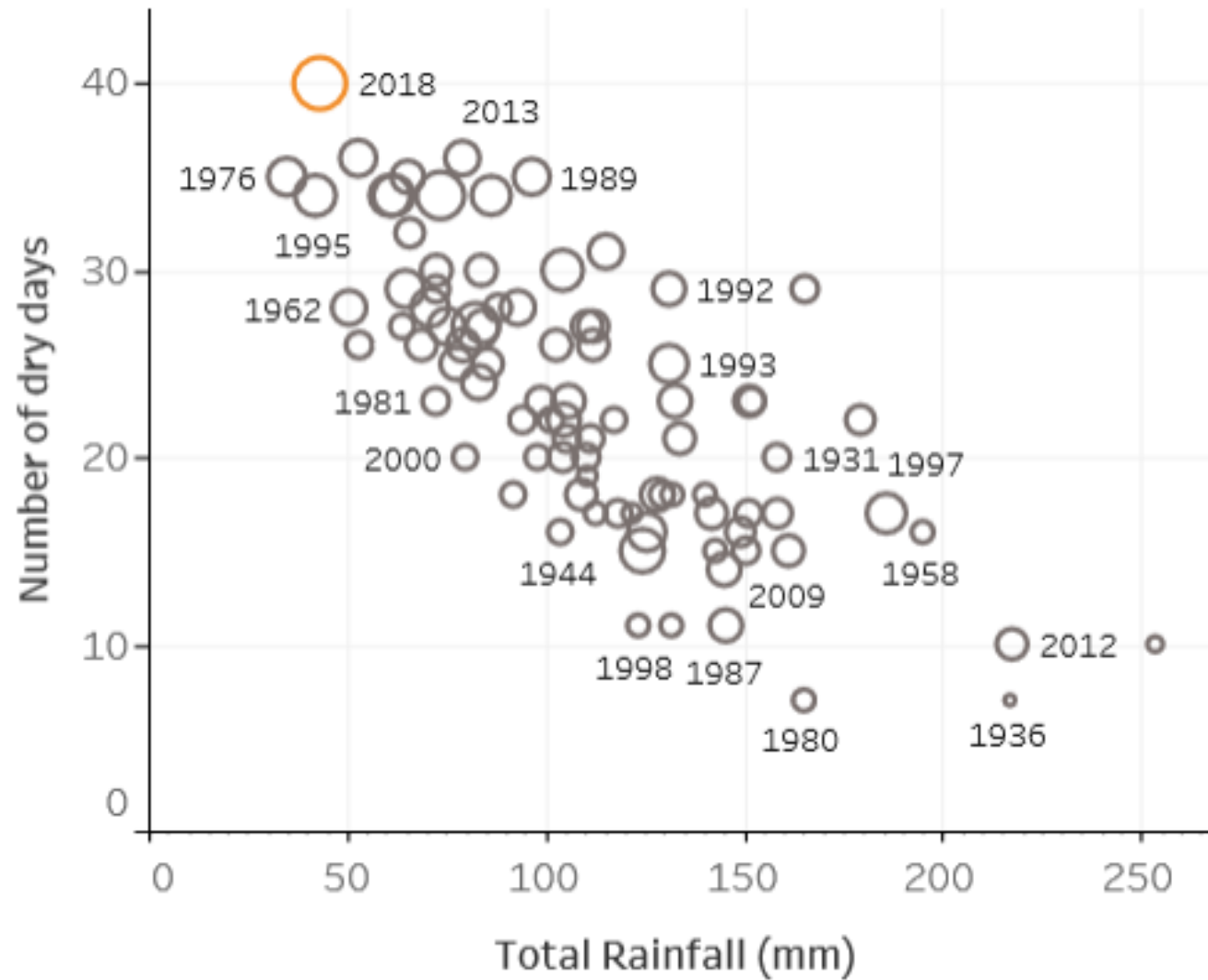
Total (mean) rainfall

28

Long-term rainfall analysis

HadUKP Region Month

- | | |
|--|---|
| <input type="radio"/> N Scotland | <input type="checkbox"/> Jan |
| <input type="radio"/> E Scotland | <input type="checkbox"/> Feb |
| <input type="radio"/> S Scotland | <input type="checkbox"/> Mar |
| <input type="radio"/> Northern Irela... | <input type="checkbox"/> Apr |
| <input type="radio"/> NE England | <input type="checkbox"/> May |
| <input type="radio"/> NW England &... | <input checked="" type="checkbox"/> Jun |
| <input checked="" type="radio"/> C England | <input checked="" type="checkbox"/> Jul |
| <input type="radio"/> SE England | <input type="checkbox"/> Aug |
| <input type="radio"/> SW England &... | <input type="checkbox"/> Sep |
| | <input type="checkbox"/> Oct |
| | <input type="checkbox"/> Nov |
| | <input type="checkbox"/> Dec |



Rainfall map



WeatherHub



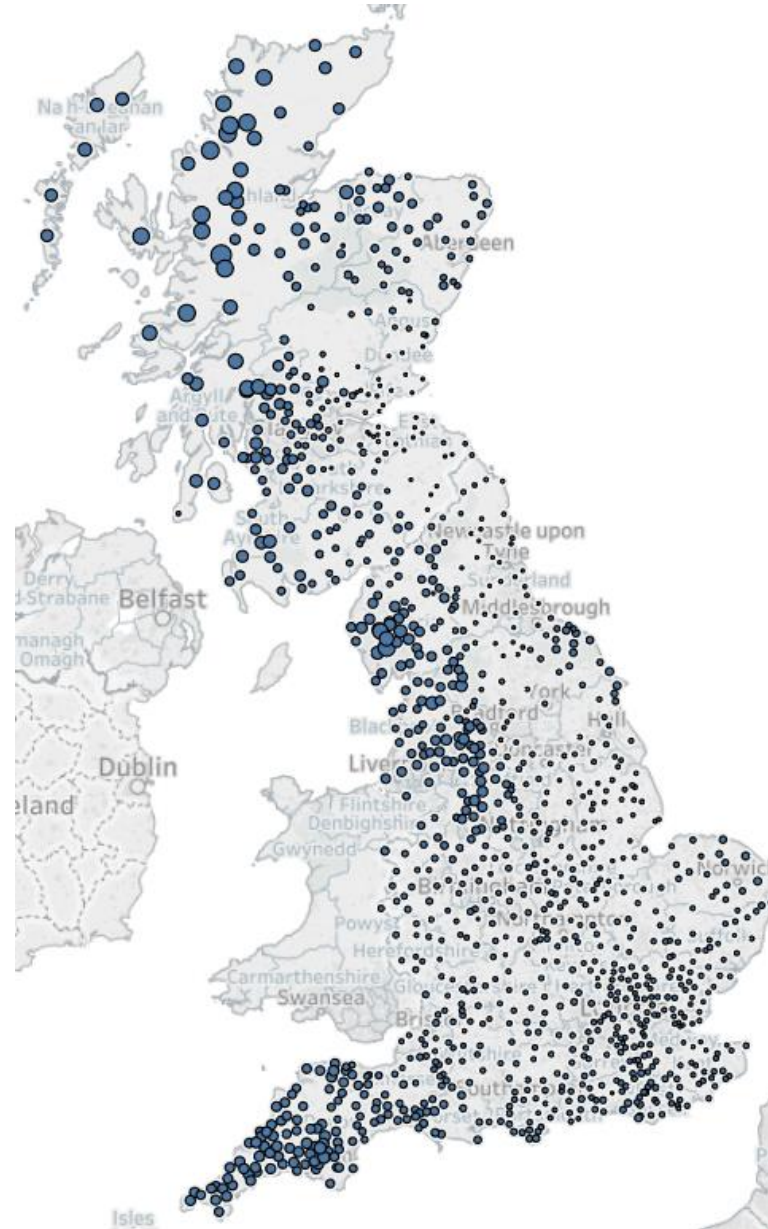
Period

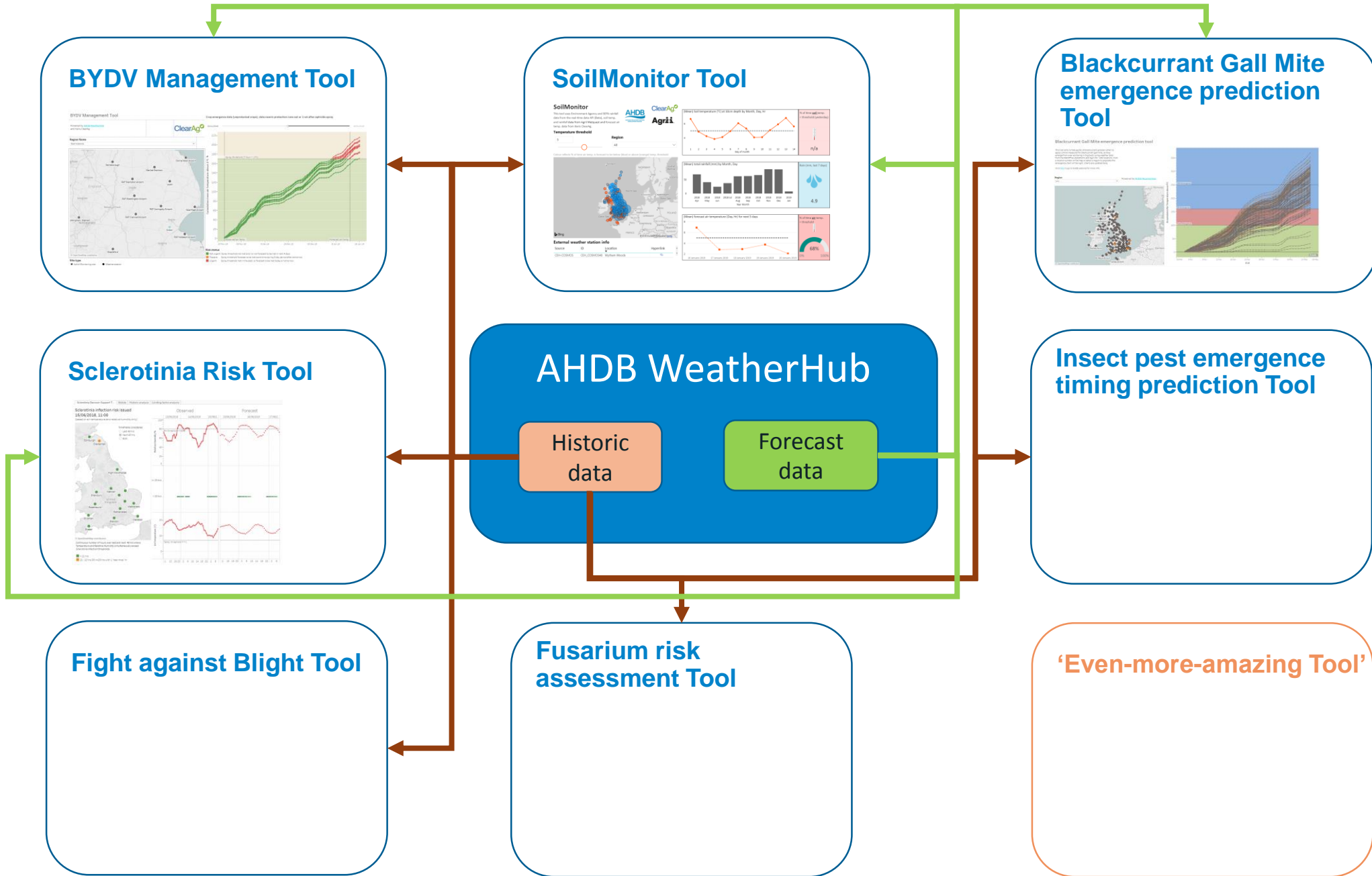
01/01/2019 31/01/2019

Total rainfall

0.0 456.6

Total rainfall (mm) for selected period and rain gauge(s)





SoilMonitor

This tool uses Environment Agency and SEPA rainfall data from the real-time data API (Beta), soil temp. and rainfall data from Agrii Metquest and forecast air temp. data from iteris ClearAg.



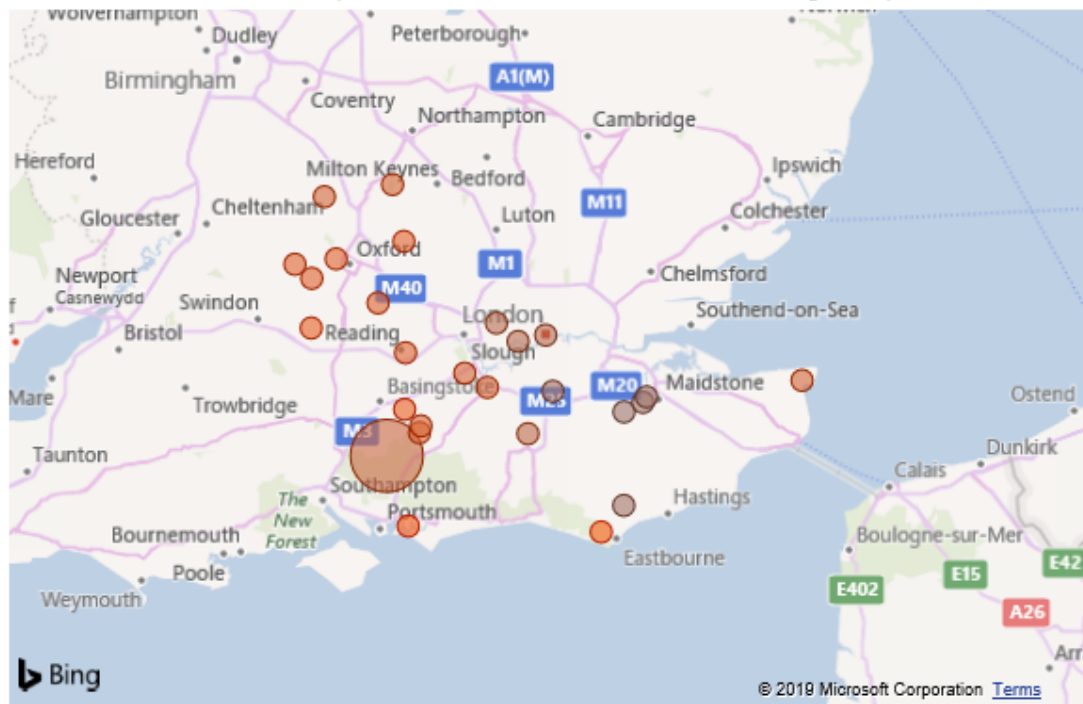
Temperature threshold

5

Region

London & South East England

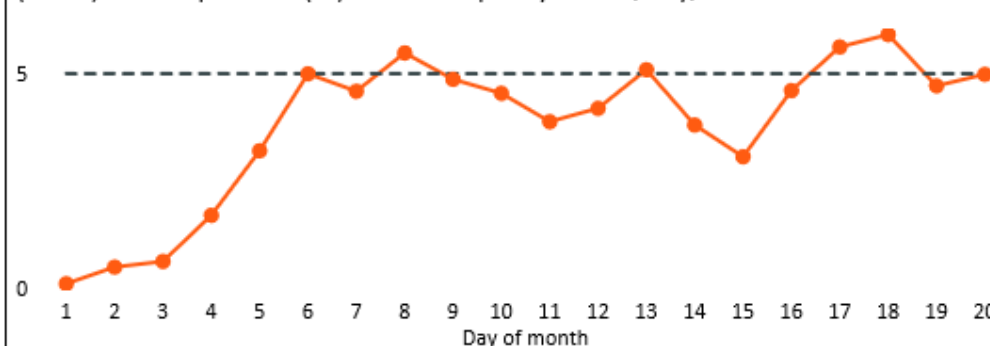
Colour reflects % of time air temp. is forecast to be below (blue) or above (orange) temp. threshold



External weather station info

Source	ID	Location	Hyperlink
CEH-COSMOS	CEH_COSMOS48	Wytham Woods	Link

(Mean) Soil temperature (°C) at 10cm depth by Month, Day, Hr

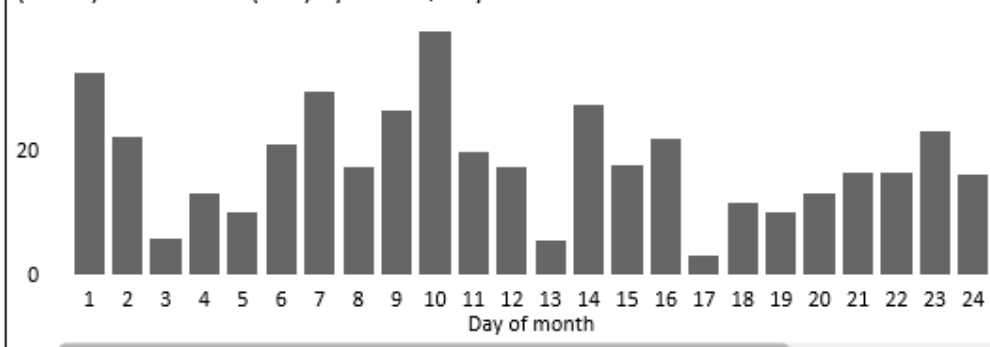


% of time soil temp. < threshold (yesterday)



55%

(Mean) total rainfall (mm) by Month, Day

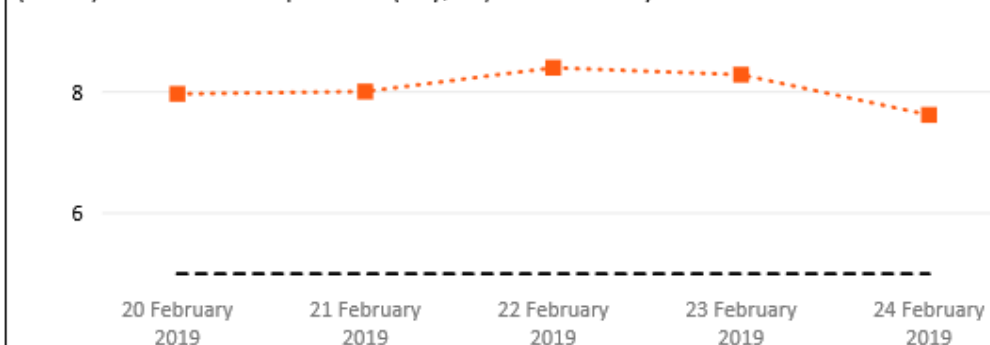


Rain (mm, last 7 days)

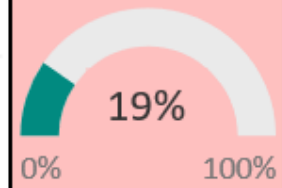


2.8

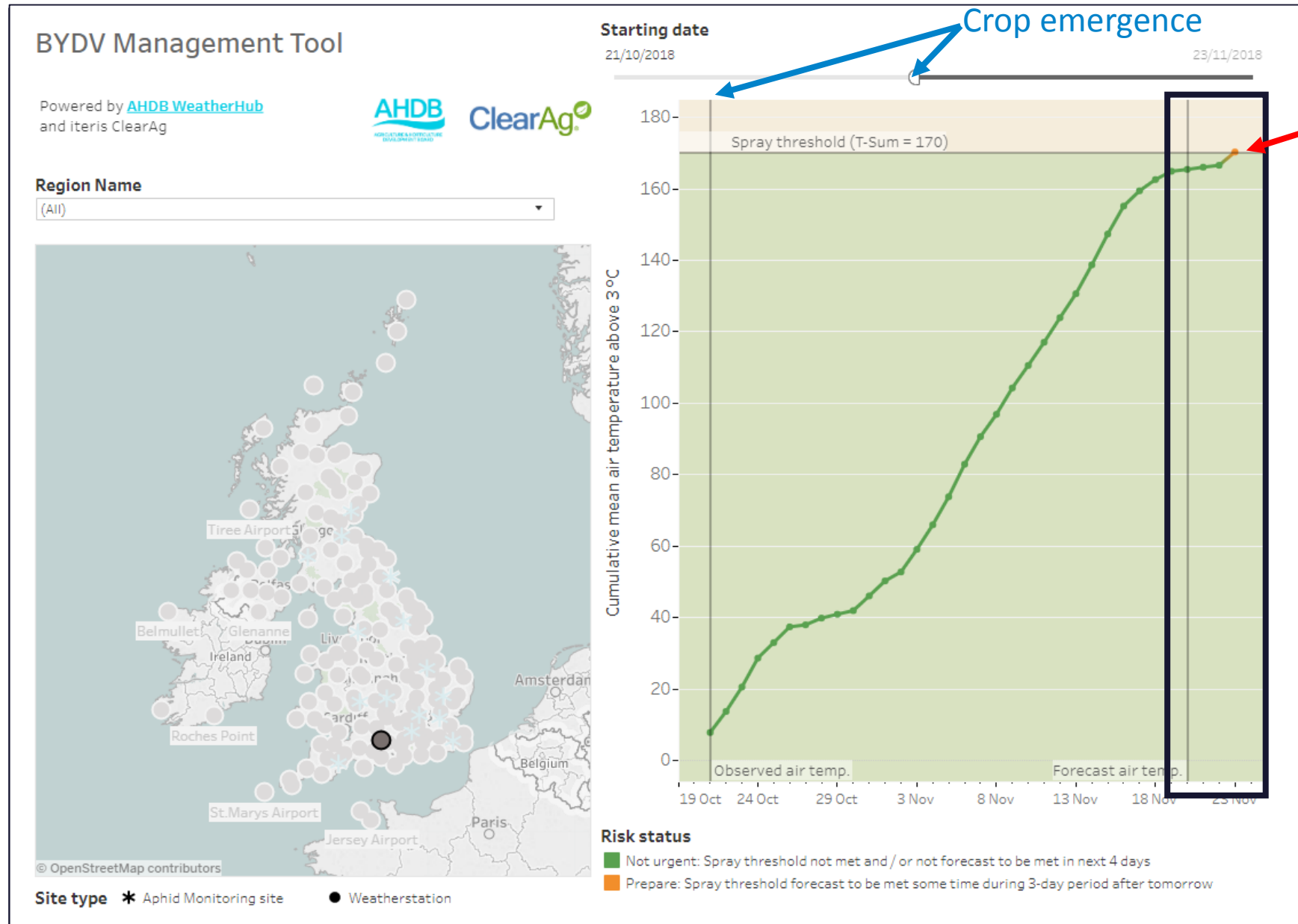
(Mean) forecast air temperature (Day, Hr) for next 5 days



% of time air temp. < threshold



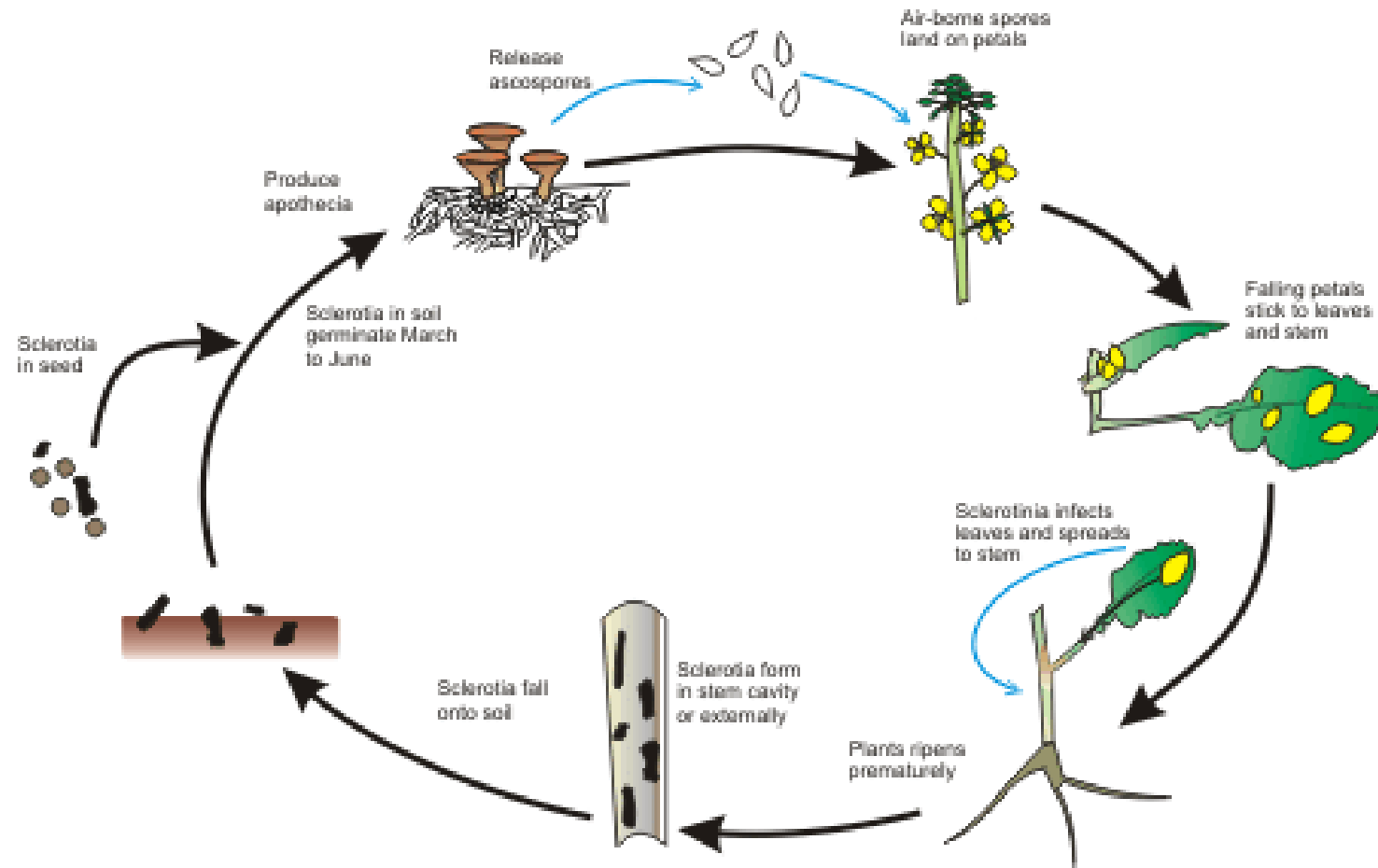
BYDV tool



Spray threshold

<https://cereals.ahdb.org.uk/BYDV>

Sclerotinia forecasting



Sclerotinia forecasting

Risk period

- Relative humidity $>80\%$ + air temperatures are at, or above, 7°C for more than 23 hours



Sclerotinia forecasting

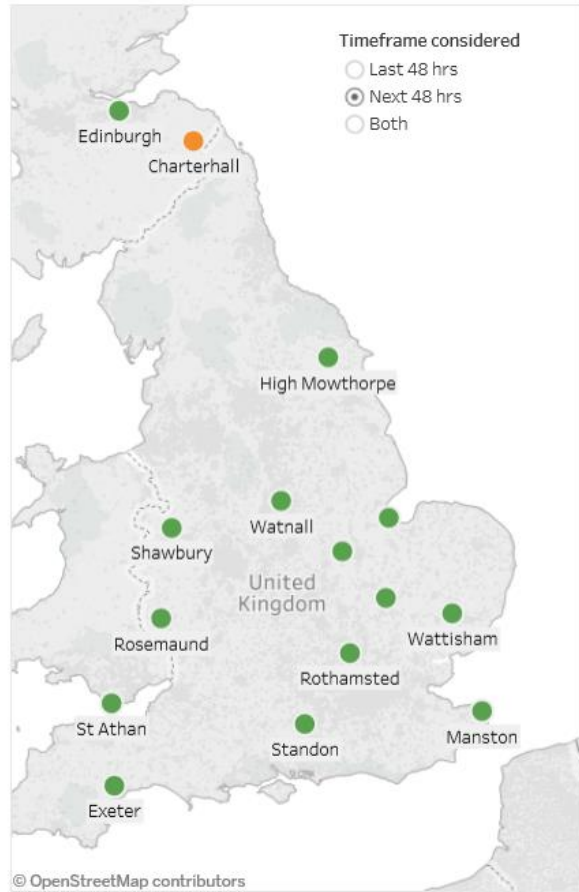


Sclerotinia Decision Support T... Mobile Historic analysis Limiting factor analysis

Sclerotinia infection risk issued

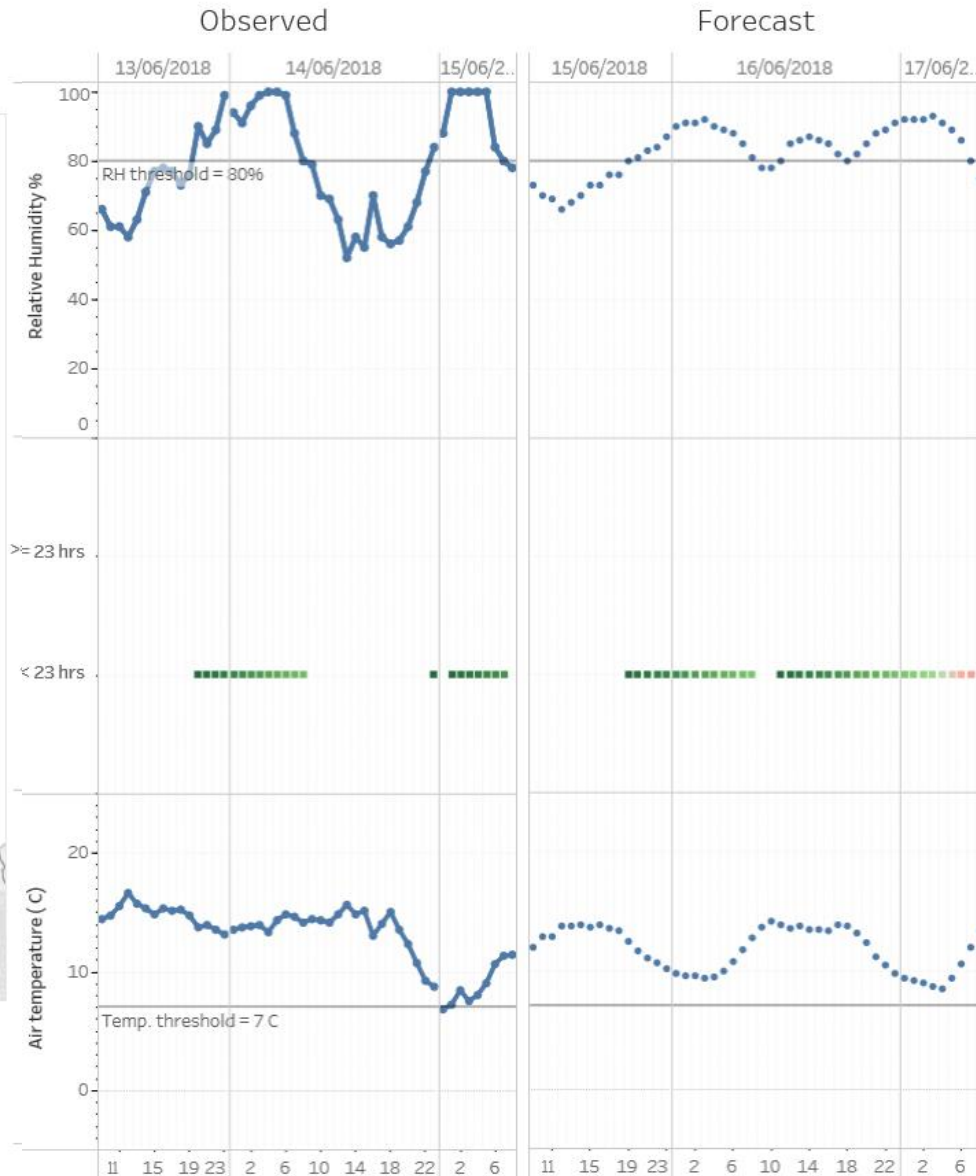
15/06/2018, 11:00

(based on air temperature and relative humidity only)



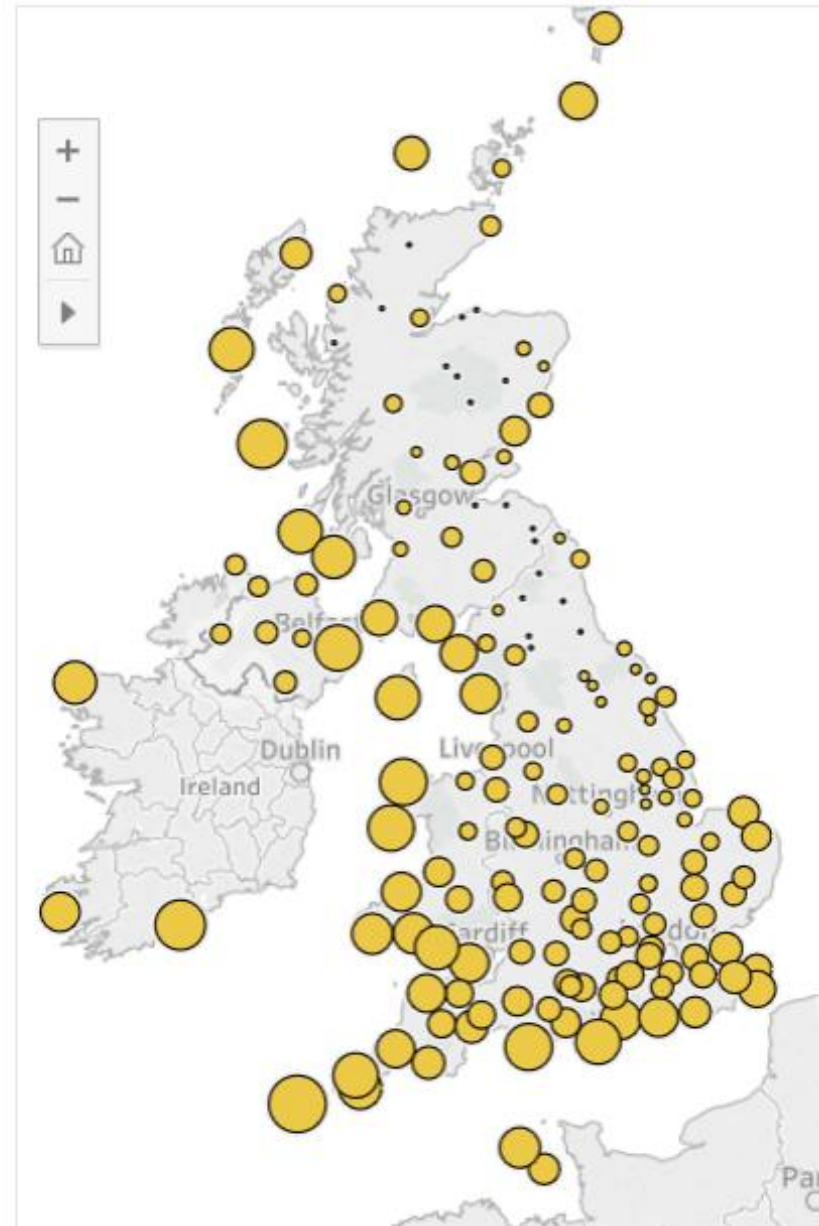
Continuous number of hours over last and next 48 hrs where Temperature and Relative Humidity simultaneously exceed *Sclerotinia* infection thresholds

- < 21 hrs
- 21 - 22 hrs OR ≥23 hrs with 1 'near miss' hr



Sclerotinia forecasting

Symbol size indicates number of days where weather conditions were conducive to sclerotinia infection from 6th April to 20th May 2018



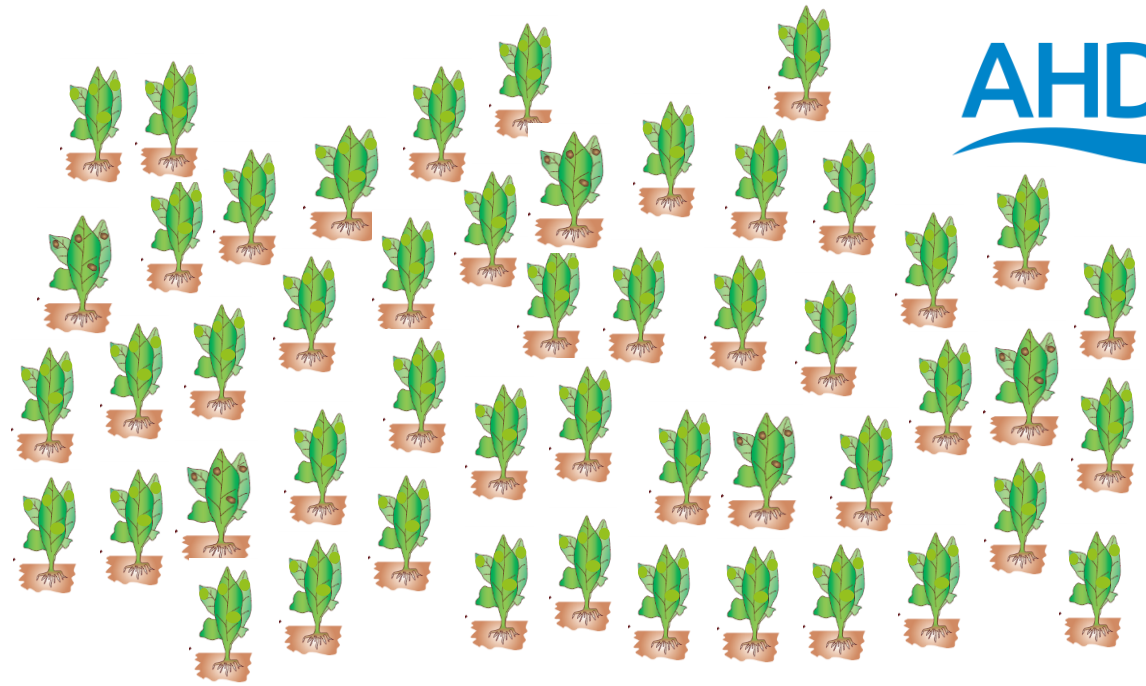
Phoma forecasting



Recommended List phoma rating 7 or below

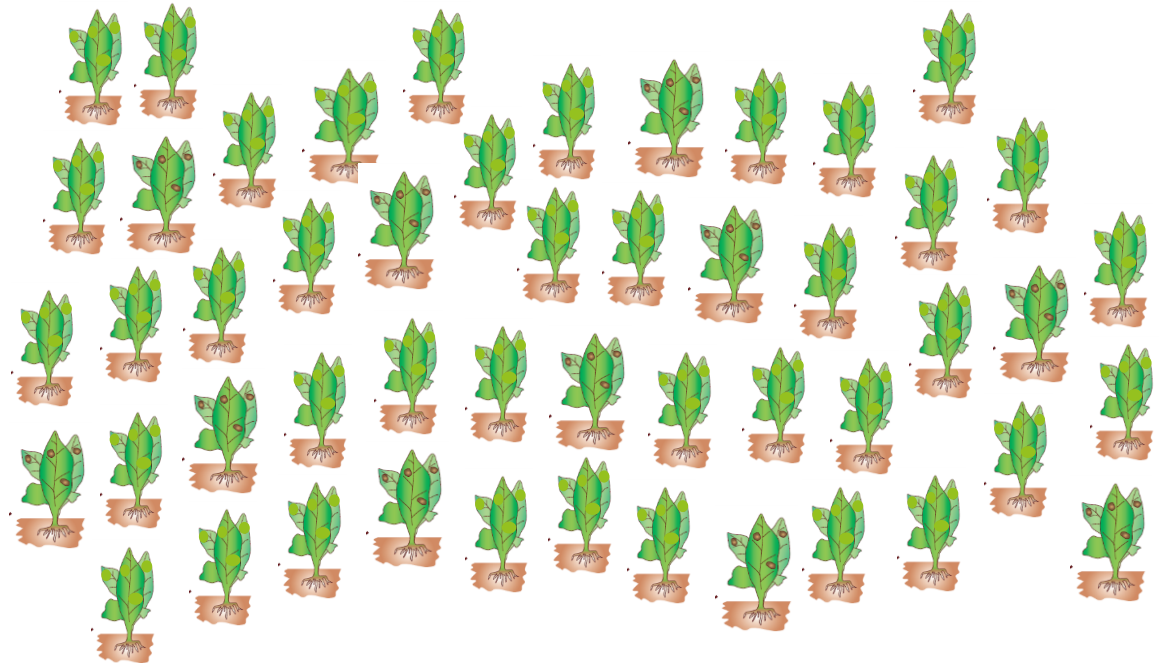


Spray when 10-20%
plants have phoma leaf
spots



Recommended List phoma rating 8 or 9 (DK Secret, Aquila)

Spray when 20% plants
have phoma leaf spots



Phoma forecast

← Benson, Oxfordshire

Site
Benson, Oxfordshire

Prediction date 2018/19
10/6/2018

current date
10/24/2018

Diff
-18

Tag
10% incidence predicted



<https://ahdb.org.uk/tools>

Thank you

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 @CatherineGar4



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Thank You

Chaired by Andrew Cragg, United Oilseeds