

APHID MONITORING IN THE UK

Aphids are pests on a wide range of agricultural, horticultural and forest crops, as a result of which there is a need to monitor their distribution and abundance in order to guide decisions on control. Several complementary systems are in place to achieve this, each differing in its scope. Information coming from these systems may sometimes appear contradictory, but there will always be an explanation for this. The operators of three systems have decided to produce regular overviews, outlining the headline stories apparent from expert consideration of the available evidence. The overviews will provide a link to each system where more detail can be found if required.

The three systems are:

1) The Rothamsted Insect Survey (RIS) and SASA Suction-Trap (ST) network
(www.rothamsted.ac.uk/insect-survey)

A UK network of fifteen fixed-location STs provides daily data on every aphid species, 21 of which are especially important economically and are included in weekly bulletins. The network has provided standardised data since 1964. The data give an indication of the occurrence of flying aphids at a regional scale but do not record local variability. Information on the insecticide resistance status of Peach–potato aphid and Grain aphid is provided and whether Peach–potato aphid is carrying Beet mild yellowing virus and Turnip yellows virus.

FOR AHDB-HGCA Aphid Advisory Alerts based on these data see:

http://www.hgca.com/cms_publications.output/2/2/Publications/Publication/Aphid%20advisory%20alerts.msp?fn=show&pubcon=6036.

For HDC/Syngenta vegetable pest bulletin based on these data see:

<http://www3.syngenta.com/country/uk/en/AgronomyTools/HDCPestBulletin/Pages/HDCPestBulletin.aspx>.

Main sponsors: BBSRC, Scottish Government, BBRO, AHDB-HGCA

2) The British Beet Research Organisation (BBRO) Yellow Water-pan Trap (YWT) network

A network of approximately 30 YWTs is operated during the sugar beet growing season (late April/early May to late July/early August). YWTs give information relevant to the field in which they are placed. The two main virus vector aphid species are counted and tested for Beet mild yellowing virus, Turnip yellows virus and insecticide resistance status. Weekly information is supplied to British Sugar agronomists and growers via BBRO bulletins.

Main sponsor: BBRO

3) The Food and Environment Research Agency (FERA) YWT network

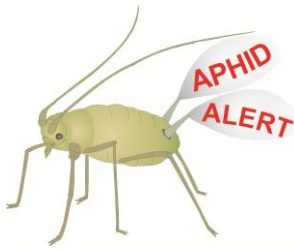
(<http://aphmon.csl.gov.uk/levy/>)

This system is aimed at alerting growers to risks from aphid-borne potato viruses. Growers pay to host YWTs and to receive virus risk notifications based on identification of their samples.

Approximately 200 growers currently use the service. Weekly summaries, alerts giving the time of first appearance of Peach–potato aphid in a region and alerts to particularly high vector pressure indices are available by signing up.

Main Sponsor: AHDB-Potato Council

None of these systems monitors wingless aphids on crops but requests for observations are made weekly and any information received is incorporated into the alerts. Aphids produce wings to migrate into crops following overwintering as eggs on trees, to move between crops in response to overcrowding or poor nutritional quality and to return to winter hosts. Species vary in the degree to which each of these processes occurs. Temperatures below about 11°C inhibit aphid flight.



APHID ALERT SUMMARY 24th MAY 2013

- So far this year there has been remarkably little flight activity of any crop pest species. This is partly due to the cold winter causing mortality and partly due to adverse spring conditions for aphid development and flight.
- No peach–potato aphids have been caught in any of the traps.
- The first potato aphid has been caught in the south east and just a few spotted on crops in the midlands.
- The first few willow–carrot aphids have been caught in the south east.
- Low numbers of cereal aphids have been caught throughout the Country but several bird cherry–oat aphids have been seen on bird cherry trees and will fly as soon as conditions are favourable.
- Sycamore aphids are flying in large numbers but these pose no risk to crops.

Further information can be found as follows.

Rothamsted Suction Traps:

www.rothamsted.ac.uk/insect-survey

AHDB-HGCA Aphid Advisory Alert:

http://www.hgca.com/cms_publications.output/2/2/Publications/Publication/Aphid%20advisory%20alerts.aspx?fn=show&pubcon=6036

HDC/Syngenta Vegetable Pest Bulletin:

<http://www3.syngenta.com/country/uk/en/AgronomyTools/HDCPestBulletin/Pages/HDCPestBulletin.aspx>

FERA Yellow Water Pan Traps:

<http://aphmon.csl.gov.uk/levy/>