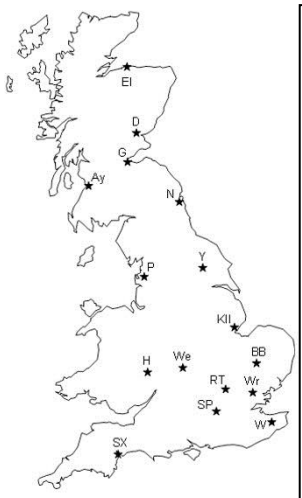
AHDB Aphid News

3rd November 2017



This news sheet summarises up-to-date results from the Rothamsted/SASA **suction-trap (ST) network**. Included on the Bird cherry–oat aphid (*Rhopalosiphum padi*) table this week are numbers accumulated from a start date (18/09) representing the **early emergence** of cereal seedlings and giving an indication of the build-up of virus vector pressure.

During bulletin week 23rd October – 29th October the total number of bulletin aphids caught has decreased to three quarters that of the last bulletin week. Bird cherry–oat aphid numbers are above the 10 year mean at several sites but are generally falling at all but four **ST** sites. There have also been field reports of aphids on newly emerging cereals in Cambridgeshire and Lincolnshire. Testing at Rothamsted this week has shown that the proportion of aphids of the cereal colonising form has increased to 27% from 12% last week (though numbers caught were substantially lower). Peach–potato aphids *(Myzus persicae)* are on the increase over much of the south and there has also been a report of strong colonies on OSR from Essex. Average temperatures this bulletin week have also just begun to dip below the aphid flight threshold in several areas and as the number of daylight hours reduces so too are the windows of opportunity for aphid migration. Aphids that have located unprotected crops will continue to do well at temperatures above 3°C.

WINTER CEREALS

The main aphid vectors of **BYDV** are females of the **bird cherry–oat aphid**, *Rhopalosiphum padi* and the **English grain aphid**, *Sitobion avenae.*

'*' indicates where totals have been corrected proportionally to seven days, fewer days' samples having been processed.

Sitobion avenae				**23/10-29/10**	***Rhopalosiphum padi* - females only**					
Compared to last week	**2017**	**2016**	**10-year average 2007-16**		**Compared to last week**	**2017**	**10-year average 2007-16**		**2017 Acc from 18/09**	**2007-2016 Acc from 18/09**
	4	0	1	Dundee	↓	18	16		1136	1335
	0	3	0	Gogarbank (Edinburgh)	↓	32	55		4047	2647
	*0	0	0	Newcastle	↓	*0	25		1536	2316
	0	0	/	York	↓	72	/		5909	/
	*0	0	0	Preston	↑	*731	387		4091	9444
	0	0	0	Kirton	↓	92	139		3178	2207
	0	0	0	Broom's Barn (Bury St Edmunds)	↑	255	77		2884	1650
↓	2	0	0	Wellesbourne	↑	172	77		3099	1586
↑	4	0	1	Hereford	↓	70	67		1584	2467
	*0	0	0	Rothamsted (Harpenden)		*0	54		461	1038
	0	0	0	Writtle	↑	216	130		3926	1922
↓	0	0	0	Silwood Park (nr Ascot)	↓	29	45		798	906
	0	2	1	Wye	↓	180	102		2319	1753
↓	0	0	1	Starcross (nr Exeter)	↓	197	89		1461	1501

- The numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) increased at four **ST** sites this week. The highest number caught was from the **ST** at Preston (731).

- Grain aphids (*Sitobion avenae*) were caught from three **ST** sites this week. The highest number caught was from Dundee (4) and Hereford (4).
- During the period **27/10 – 2/11:** 26 *R. padi* were tested at Rothamsted, 7 (27%) of which were of the cereal colonising form.
- **Monitoring is recommended whilst the aphid migration continues.**

Only a small proportion of aphids entering cereals are likely to be carrying BYDV. Problems with spread arise when the second generation offspring of the original winged colonisers are produced. This is usually the generation that begins moving significantly away from the plant originally colonised. Very approximately this begins when **170 day degrees above** a threshold of 3ºC (DD>3) have accumulated. DD>3 calculations should begin on the day of emergence for untreated crops, 1 week after application of pyrethroids, or if aphids are found when neonicotinoid-treated seed protection runs out (i.e. approx. 6 weeks after emergence or 8 weeks after sowing).

The day degrees for a given site can be loosely calculated using the http://www.degreedays.net/ website; entering the nearest weather station to the location of interest, giving a base temperature of 3ºC and selecting daily data.

WINTER OILSEED RAPE and VEGETABLE BRASSICAS

The main aphid vector of **TuYV** is the **peach–potato aphid**, *Myzus persicae* but it seldom reaches numbers high enough to cause direct feeding damage. Conversely the **mealy cabbage aphid**, *Brevicoryne brassicae* is a poor vector of TuYV, but can cause direct feeding damage to isolated plants. This species is more of a problem in spring than in autumn.

Brevicoryne brassicae				**23/10-29/10**	***Myzus persicae***			
Compared to last week	**2017**	**2016**	**10-year average 2007-16**		**Compared to last week**	**2017**	**2016**	**10-year average 2007-16**
	0	0	0	Dundee	↑	3	0	0
	0	0	0	Gogarbank (Edinburgh)	↓	0	0	1
	*0	0	0	Newcastle	↓	*0	0	0
	0	0	/	York	↓	0	0	/
	*0	0	0	Preston	↑	*11	0	4
↑	4	0	15	Kirton	↓	9	9	26
	0	0	0	Broom's Barn (Bury St Edmunds)	↑	5	11	5
	0	0	0	Wellesbourne	↑	24	6	1
	0	0	0	Hereford	↑	12	5	1
	*0	0	0	Rothamsted (Harpenden)		*0	1	1
	0	2	0	Writtle	↑	35	0	2
	0	0	0	Silwood Park (nr Ascot)	↑	2	1	1
↑	4	0	0	Wye	↑	12	0	2
	0	0	0	Starcross (nr Exeter)	↓	0	1	1

- Peach–potato aphids (*Myzus persicae*) were caught at nine **ST** sites, increasing in number at eight traps. The highest number caught was from the **ST** site at Writtle (35).
- Mealy cabbage aphids (*Brevicoryne brassicae*) were caught from the **ST** sites at Kirton (4) and Wye (4).
- **Monitoring crops for aphids maybe useful.**

OTHERS

The willow-carrot aphid (*Cavariella aegopodii*) was caught in five **ST** this week. 95 male individuals were caught from **ST** sites across the country this week suggesting that the autumn migration back to willows is continuing.

As always, we appreciate any intelligence from the field and any comments on the information we provide.

Further information

Please send information on crop aphids to: alex.greenslade@rothamsted.ac.uk
AHDB Cereals and Oilseeds: Click here
AHDB Potatoes: Click here
AHDB Horticulture: Click here
Rothamsted Insect Survey: Click here
Science and Advice for Scottish Agriculture (SASA): Click here

In partnership with

AHDB publications are free to levy payers
Electronic version can be downloaded at **cereals.ahdb.org.uk/aphidnews**
To join the mailing lists, contact: **comms@ahdb.org.uk**