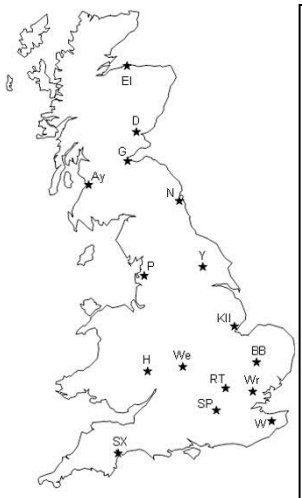
AHDB Aphid News

27th October 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 16th October – 22nd October the total number of bulletin aphids caught has decreased to less than half that of the last bulletin week. Bird cherry–oat aphid numbers have fallen to lower than their 10 year mean apart from sites in Scotland and Southern England. Testing at Rothamsted this week has shown that the number of aphids of the cereal colonising form has decreased to 12% from 22% last week. Although temperatures this bulletin week have remained above the aphid flight threshold in many areas, the number of daylight hours is reducing 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				**16/10-22/10**	***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	0	Dundee	↓	*119	48	1118	1320
	0	1	1	Gogarbank (Edinburgh)	↓	239	97	4015	2592
	0	0	0	Newcastle	↓	90	187	1536	2291
	0	0	/	York	↓	224	/	5837	/
	0	0	0	Preston	↓	358	763	3360	9057
	0	0	1	Kirton	↓	150	161	3086	2068
	*0	0	0	Broom's Barn (Bury St Edmunds)	↓	*30	125	2629	1572
↓	4	0	0	Wellesbourne	↓	114	191	2927	1508
	0	0	1	Hereford	↓	73	152	1514	2401
	*0	0	0	Rothamsted (Harpenden)		*0	65	461	984
↓	*0	0	0	Writtle	↓	*91	169	3710	1792
↑	3	2	1	Silwood Park (nr Ascot)	↓	43	89	769	861
↓	0	0	1	Wye	↓	224	209	2139	1651
↑	2	0	0	Starcross (nr Exeter)	↑	300	88	1264	1412

- The numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) decreased at all **ST** sites this week apart from Starcross. The highest number caught was from the **ST** at Preston (358).

- Grain aphids (*Sitobion avenae*) were caught from four **ST** sites this week. The highest number caught was from Dundee (4) and Wellesbourne (4).
- During the period **20/10 – 26/10:** 60 *R. padi* were tested at Rothamsted, 7 (12%) 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				**16/10-22/10**	***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		*0	0	0
	0	0	0	Gogarbank (Edinburgh)	↑	1	2	1
	0	0	0	Newcastle	↑	4	0	0
	0	0	/	York	↑	12	0	/
	0	0	0	Preston	↓	0	0	0
	0	0	3	Kirton	↓	10	0	9
	*0	0	0	Broom's Barn (Bury St Edmunds)	↓	*0	1	4
	0	0	1	Wellesbourne	↓	12	2	2
	0	0	1	Hereford	↓	4	1	1
	*0	0	0	Rothamsted (Harpenden)		*0	1	1
	*0	0	0	Writtle		*6	4	1
	0	0	0	Silwood Park (nr Ascot)		0	1	1
	0	0	0	Wye	↓	9	9	3
	0	0	0	Starcross (nr Exeter)	↓	2	2	1

- Peach–potato aphids (*Myzus persicae*) were caught at nine **ST** sites, increasing in number at three northern traps. The highest numbers caught were from the **ST** sites at York (12) and Wellesbourne (12).
- No Mealy cabbage aphids (*Brevicoryne brassicae*) were caught this week at the **ST** sites.
- **Monitoring crops for aphids maybe useful.**

OTHERS

The willow-carrot aphid (*Cavariella aegopodii*) was caught in seven **ST** this week. Thirteen male individuals were caught from **ST** sites across the England 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
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