

17th 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 6th November – 12th November the total number of bulletin aphids caught has decreased substantially to less than a third of that of the last bulletin week. Bird cherry–oat aphid numbers have likewise generally fallen in ST sites across the country with all sites catching less than 100 across the week and are for the most part in line with the 10-year mean. The numbers accumulated from an early emergence date are presenting a mixed picture of the build-up of virus vector pressure with some sites possibly being at a higher risk than on average (see table). Testing at Rothamsted this week has shown that the proportion of aphids of the cereal colonising form has increased to 54% from 33% last week (though it should be reiterated that low numbers were caught for this test). Average temperatures this bulletin week have continued to fall below the aphid flight threshold further reducing the 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.

<i>Sitobion avenae</i>				06/11-12/11	<i>Rhopalosiphum padi</i> - 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
	0	0	0	Dundee		0	2	1136	1341
	0	0	0	Gogarbank (Edinburgh)	↓	1	2	4060	2675
	*0	0	0	Newcastle		*0	5	1536	2351
	0	0	/	York	↓	3	/	5937	/
	0	0	0	Preston	↓	77	62	4704	9654
	0	0	0	Kirton	↓	11	14	3221	2263
↓	0	0	0	Broom’s Barn (Bury St Edmunds)	↓	8	6	2964	1691
	*0	0	1	Wellesbourne	↓	*5	7	3196	1618
	0	0	0	Hereford	↓	13	10	1646	2526
	*0	0	0	Rothamsted (Harpenden)		*0	8	461	1069
	0	0	0	Writtle	↓	11	11	4002	1970
	*0	0	0	Silwood Park (nr Ascot)	↓	*0	7	813	940
	0	0	0	Wye	↓	6	12	2360	1816
	0	0	0	Starcross (nr Exeter)	↓	26	11	1537	1555

- The numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) decreased at eleven ST sites this week. The highest number recorded was from the ST at Preston (77).

- No Grain aphids (*Sitobion avenae*) were found at the **ST** sites this week.
- During the period **10/11 – 16/11**: 13 *R. padi* were tested at Rothamsted, 7 (54%) 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 3°C (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 3°C 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.

<i>Brevicoryne brassicae</i>				06/11-12/11	<i>Myzus persicae</i>			
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)		0	0	0
	*0	0	0	Newcastle		*0	0	0
	0	0	/	York	↑	1	0	/
	0	0	0	Preston		0	0	0
	0	0	1	Kirton		0	0	3
	0	0	0	Broom’s Barn (Bury St Edmunds)	↓	2	1	2
	*0	0	0	Wellesbourne	↓	*0	0	0
	0	0	0	Hereford	↓	2	0	0
	*0	0	0	Rothamsted (Harpenden)		*0	1	1
	0	0	0	Writtle	↓	10	0	1
	*0	0	0	Silwood Park (nr Ascot)		*1	0	0
	0	0	0	Wye	↑	5	0	0
	0	0	0	Starcross (nr Exeter)	↓	0	1	1

- Peach–potato aphids (*Myzus persicae*) were recorded from six **ST** sites, increasing in number at two sites. The highest number was found at Writtle (10).
- No Mealy cabbage aphids (*Brevicoryne brassicae*) were recorded from the **ST** sites this week.
- **Monitoring crops for aphids maybe useful.**

OTHERS

The willow-carrot aphid (*Cavariella aegopodii*) was found at three **ST** this week. Nine male individuals were recorded 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](#)

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