

24th 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 13th November – 19th November the total number of bulletin aphids caught has remained unchanged compared to that of the last bulletin week. However, Bird cherry–oat aphid numbers have increased in ST sites in the south of the country with several sites still above their 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). No Bird cherry–oat aphids could be caught for cereal coloniser testing at Rothamsted this week. Unusually high numbers of Peach–potato aphids (*Myzus persicae*) were also found at Wellesbourne and Hereford this week. Continued ground frosts over the coming weeks with very likely aid in reducing the numbers of flying aphids. 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>				13/11-19/11	<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	0	1136	1341
	0	0	0	Gogarbank (Edinburgh)	↓	0	1	4060	2677
	*0	0	0	Newcastle		*0	2	1536	2353
↑	1	0	/	York		3	/	5940	/
↑	1	0	0	Preston	↓	63	15	4767	9669
	0	0	0	Kirton	↓	3	9	3224	2272
↑	1	0	0	Broom’s Barn (Bury St Edmunds)	↑	23	5	2987	1695
	0	0	0	Wellesbourne	↑	7	2	3203	1620
↑	1	0	0	Hereford	↑	17	7	1663	2532
	*0	0	0	Rothamsted (Harpenden)		*0	3	461	1072
	0	0	0	Writtle	↑	17	7	4019	1977
	0	0	0	Silwood Park (nr Ascot)	↑	2	4	815	945
	*0	0	0	Wye	↑	*26	5	2386	1821
	0	1	0	Starcross (nr Exeter)	↑	32	9	1569	1564

- The numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) increased at seven ST sites in the south this week. The highest number recorded was from the ST at Preston (63).

- Four Grain aphids (*Sitobion avenae*) were found at the **ST** sites this week.
- During the period **17/11 – 23/11**: no *R. padi* were found for testing at Rothamsted.
- **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>				13/11-19/11	<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	1
	0	0	1	Kirton	↑	1	0	3
	0	0	0	Broom’s Barn (Bury St Edmunds)		2	0	1
	0	0	0	Wellesbourne	↑	15	0	0
	0	0	0	Hereford	↑	15	1	1
	*0	0	0	Rothamsted (Harpenden)		*0	0	1
	0	0	0	Writtle	↓	8	0	1
	0	0	0	Silwood Park (nr Ascot)	↓	0	0	0
	*0	0	0	Wye	↑	*11	0	0
	0	0	0	Starcross (nr Exeter)		0	0	0

- Peach–potato aphids (*Myzus persicae*) were recorded from seven **ST** sites, increasing in number at four sites. The highest number was found at Wellesbourne (15) and Hereford (15).
- 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. Eight 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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