

29<sup>th</sup> September 2017



This news sheet summarises up-to-date results from the Rothamsted/SASA suction-trap (ST) network.

During bulletin week 18<sup>th</sup> - 24<sup>th</sup> September the total number of bulletin aphids caught has more than doubled, the diversity of these aphid species has also increased slightly. Higher average air temperatures and dryer conditions over much of Britain this week may have contributed to this increase. Particularly notable were the bird cherry–oat aphid (*Rhopalosiphum padi*) catches from the Gogarbank ST site which caught over 2,000 individuals from both sexes combined (similar to the catch this time last year). 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>				18/09-24/09	<i>Rhopalosiphum padi</i> - females only			
Compared to last week	2017	2016	10-year average 2007-16		Compared to last week	2017	2016	10-year average 2007-16
↑	*4	1	1	Dundee	↑	*371	1012	521
	2	0	1	Gogarbank (Edinburgh)	↑	1875	1548	726
	*0	0	0	Newcastle	↑	*243	240	562
	0	0	/	York	↑	442	293	/
	0	0	1	Preston	↑	386	744	1767
↓	0	1	0	Kirton	↑	137	46	285
↑	1	3	2	Broom’s Barn (Bury St Edmunds)	↑	162	110	192
	0	0	1	Wellesbourne	↑	331	90	227
	0	3	2	Hereford	↑	152	94	412
	0	0	2	Rothamsted (Harpenden)	↑	56	44	121
↑	1	0	1	Writtle	↑	213	63	208
	0	0	1	Silwood Park (nr Ascot)	↑	70	44	119
	0	0	1	Wye	↑	128	267	224
	0	0	3	Starcross (nr Exeter)	↑	91	119	219

- The numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) increased at all ST sites this week and particularly in the north.
- Grain aphids (*Sitobion avenae*) were caught at four sites this week, the highest number was recorded from the ST at Dundee (4).
- During the period **22/09 – 28/09**: 169 *R. padi* were tested at Rothamsted, 22 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>				18/09-24/09	<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	1	2	Dundee	↑	*4	19	3
↓	0	0	0	Gogarbank (Edinburgh)		0	0	0
	*0	0	0	Newcastle		*0	0	0
	0	0	/	York		0	0	/
	0	0	0	Preston		0	0	1
↑	5	0	3	Kirton	↑	18	6	9
	0	0	0	Broom's Barn (Bury St Edmunds)	↑	2	31	5
	0	0	1	Wellesbourne	↑	23	4	9
	0	0	1	Hereford	↑	3	0	3
	0	0	0	Rothamsted (Harpenden)	↑	4	5	2
↑	1	1	1	Writtle	↑	9	3	3
	0	0	0	Silwood Park (nr Ascot)		0	0	0
↓	0	2	1	Wye	↑	4	7	4
	0	3	2	Starcross (nr Exeter)	↑	7	0	2

- Peach–potato aphids (*Myzus persicae*) were caught and increasing in number at nine **ST** sites. The highest number caught was from the **ST** at Wellesbourne (23).
- Mealy cabbage aphids (*Brevicoryne brassicae*) were caught and increasing in number at Kirton (5) and Writtle (1) **ST** sites.
- **monitoring crops for aphids maybe useful.**

## **OTHERS**

The willow-carrot aphid (*Cavariella aegopodii*) was caught in five suction-traps this week. numbers have increased most noticeably at Dundee and to a lesser extent at York **ST** sites. A single male individual was caught from Dundee suggesting that the start of the autumn migration back to willows to overwinter may be occurring.

**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](mailto:alex.greenslade@rothamsted.ac.uk)

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