



APHID ALERT SUMMARY

This alert summarises up-to-date results from the Rothamsted/SASA suction-trap (ST) network and the FERA yellow water-pan trap (YWT) network. Further details of the ST results can be found below and further details of the YWT results can be found at www.potato.org.uk/online-toolbox/aphid-monitoring.

GENERAL

During bulletin week 24th - 30th October, the total number of aphids flying has risen and, also, somewhat surprisingly, the diversity of aphid species increased in suction-trap samples. However, the subsequent drop in temperatures, if the weather forecasters are correct, suggest this may be a final flush of aphid flight activity and could signal the end of this year's autumn migration. Aphids that have located unprotected crops will continue to do well at temperatures above 3°C.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) increased at 10 of the 12 English suction-trap sites this week. Grain aphids (*Sitobion avenae*) were caught at Edinburgh and Wye. Typical crops range from one true leaf (GS11) all the way up to early tillering (GS21). We have received reports of aphid colonies on newly emerged cereals in southern England, but generally aphid numbers in cereals are low for the time of year. That said, even low numbers can spread and transmit viruses in mild conditions and protection from seed treatments on the earliest sown crops may now be running out. Reports also suggest that cereal aphids are widespread on emerging 'green bridge' stubbles in eastern England. **Monitoring is recommended whilst the aphid migration continues.**

Only a small proportion of aphids entering cereals is 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).

WINTER OILSEED RAPE and VEGETABLE BRASSICAS

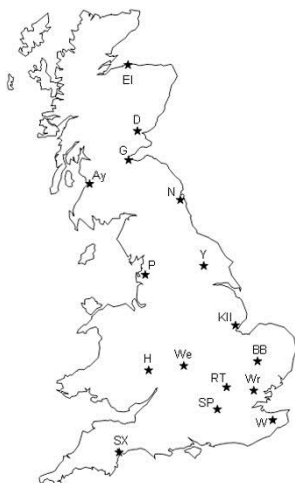
Peach–potato aphids (*Myzus persicae*) were caught at seven suction-trap sites, with highest numbers at Kirton, Wellesbourne and Starcross. Mealy cabbage aphids (*Brevicoryne brassicae*) were caught in the Writtle suction-trap this week, but none elsewhere. Typical crops range from backward crops at GS1,4 to the most forward at GS1,15. Field reports of peach–potato aphids in oilseed rape crops are common across central, eastern and southern England, especially where the crops have not had a Biscaya or Plenum treatment yet. **We strongly recommend monitoring crops for aphids now.**

OTHERS

The willow-carrot aphid (*Cavariella aegopodii*) was caught in ten suction-traps this week, with big hotspots at York and Kirton. Many of those caught were males, confirming that these individuals are flying back to willows to overwinter.

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

SUCTION-TRAPPING RESULTS



Winter Cereal Aphids

Numbers of **female bird cherry-oat aphid**, *Rhopalosiphum padi*, flying this bulletin week have increased. The table below shows the combined total of both forms of **female** bird cherry-oat aphids caught during the week **24/10 - 30/10** and compares them to last year and a ten year mean. The table also includes numbers accumulated from a start date (**26/09**) representing **early emergence** and thus gives an indication of the build-up of virus vector pressure. English grain aphids (*Sitobion avenae*) always fly in much lower numbers than bird cherry-oat aphids in the autumn.

During the period **28/10 – 03/11** four *R. padi* were tested at Rothamsted, two were of the cereal colonising form (30-year weekly mean = 2). The cereal colonising/bird cherry colonising data are only available for the Rothamsted site. The proportion of cereal colonisers is likely to be higher towards the south and west.

- Numbers of bird cherry-oat aphid increased at ten of the 12 English suction-trap sites this week.
- Numbers were above the 10 yr means for this week at Edinburgh, Preston, Wye and Starcross.
- The number of cereal-colonising bird cherry-oat aphids remain average for the time of year at Rothamsted.
- Grain aphids were caught at Edinburgh and Wye.

'*' indicates where totals have been corrected proportionally to seven days, fewer days' samples having been processed. '/' indicates that identification have not been completed.

<i>Sitobion avenae</i>				24/10-30/10	<i>Rhopalosiphum padi</i> - females only				
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	06-15	2016 Acc from 26/09	2006-2015 Acc from 26/09
↑	*4	0	0	Gogarbank (Edinburgh)	↑	*207	37	1610	1843
	*0	0	0	Newcastle	↓	*16	25	452	1771
	*0	0	/	York	↑	*67	/	280	
	*0	0	0	Preston	↓	*513	319	2945	7930
	*0	0	0	Kirton	↑	*84	130	218	1991
	*0	0	1	Broom's Barn (Bury St Edmunds)	↑	*46	97	169	1692
	*0	0	0	Wellesbourne	↑	*46	67	135	1411
	*0	1	1	Hereford	↑	*29	85	168	2210
	*0	0	0	Rothamsted (Harpenden)	↑	*22	73	76	1275
	*0	0	0	Writtle	↑	*50	135	132	1949
↓	*0	2	0	Silwood Park (nr Ascot)	↑	*14	48	70	888
↑	*4	0	1	Wye	↑	*103	90	265	1665
	*0	2	0	Starcross (nr Exeter)	↑	*193	83	469	1352

Winter Oilseed Rape and Vegetable Brassica Aphids

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.

- The peach–potato aphid was caught at seven suction-trap sites, with highest numbers at Kirton, Wellesbourne and Starcross.
- Mealy cabbage aphids were caught Writtle this bulletin week, but none elsewhere.

<i>Brevicoryne brassicae</i>				24/10-30/10	<i>Myzus persicae</i>			
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2015	2006-2015
	*0	0	0	Gogarbank (Edinburgh)	↓	*0	1	1
	*0	0	0	Newcastle		*0	0	0
	*0	0	/	York		*0	2	/
	*0	0	0	Preston		*0	8	4
	*0	0	18	Kirton	↑	*14	1	24
	*0	0	0	Broom's Barn (nr Bury St Edmunds)	↑	*7	0	5
	*0	0	0	Wellesbourne	↑	*10	1	0
	*0	0	0	Hereford	↑	*6	1	1
	*0	0	0	Rothamsted (Harpenden)	↑	*1	0	1
↑	*3	0	0	Writtle	↓	*0	2	4
	*0	0	0	Silwood Park (nr Ascot)	↑	*2	0	1
	*0	0	0	Wye	↓	*0	1	2
	*0	1	0	Starcross (nr Exeter)	↑	*9	6	2

Further information

Please send information on crop aphids to: mark-s.taylor@rothamsted.ac.uk

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