

APHID ALERT SUMMARY

APHID-BORNE VIRUSES IN WINTER CEREALS (BYDV) AND OILSEED RAPE (TuYV)

Aphid flight into crops (primary infection)

Aphids reported in this week's bulletin were caught during last week's warm weather but aphid flight will have dropped considerably in the colder, wetter and windier conditions of this week. There is still the potential for a late trickle should good flying conditions return, the chance of which diminishes with time but, if there has been good control of aphids to this point and they can't be found in crops, the danger is probably passed.

Aphid movement within crops (secondary spread)

The cold nights we had this week will have stopped aphid movement, reduced reproduction, but had little effect on survival. Thus, if warmer and drier conditions return before we've had a series of severe frosts there is still the possibility of virus spread if there are currently aphids in the crop. It's hard to be precise about the level of frost needed, but three to five consecutive days with grass minima dropping below -6°C should cause high mortality.

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

SUCTION-TRAPPING RESULTS



Suction-trap sites

Winter Cereal Aphids

The temperatures were above the aphid flight thresholds for the final days of October, but have dropped significantly since. The table below shows the combined total of both forms of **female** bird cherry–oat aphids, *Rhopalosiphum padi*, caught during the week **27/10-02/11** and compares them to last year and a ten year mean. The table also includes numbers accumulated from a start date **22/9** representing **earliest emergence**, and from **6/10** representing an **average emergence**, and these give an indication of the build-up of virus vector pressure. English grain aphids always fly in much lower numbers than bird cherry–oat aphids in the autumn.

During the period **31/10 – 06/11** 5 *R. padi* were tested at Rothamsted, 1 was of the cereal colonising form (28 year weekly mean = 1). 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, and lower towards the north and east.

- Numbers of bird cherry–oat aphid have risen in six and fallen in five suction-traps this bulletin week. Overall numbers are at or slightly above the ten year mean for this bulletin week.
- The number and proportion of cereal-colonising bird cherry–oat aphids are normal for the time of year.
- The grain aphid was caught at seven sites in the south in low numbers.

The tables below show current totals with comparisons to previous years. ' / ' indicates that identifications have not been completed and '*' indicates where totals have been corrected proportionally to seven days, fewer days' samples having been identified.

<i>Sitobion avenae</i>				27/10-02/11	<i>Rhopalosiphum padi</i> - females only							
Compared to last week	2014	2013	04-13		Compared to last week	2014	04-13	2014 Acc from 22/09	04-13 Acc from 22/09	2014 Acc from 06/10	04-13 Acc from 06/10	
↑	1	0	0	Gogarbank (Edinburgh)	↑	91	19	2439	2260	610	658	
	0	/	0	Newcastle		87	16	/	2059	/	499	
↑	1	0	1	Preston	↑	607	160	/	7623	/	3092	
	0	0	0	Kirton	↓	73	107	5110	1936	1594	1168	
	0	0	1	Broom's Barn (nr Bury St Edmunds)	↓	47	69	3377	1509	547	707	
↓	*1	/	/	Wellesbourne	↑	*130	2	/	515	/	82	
↑	2	0	1	Hereford	↑	111	57	4591	1938	773.7	915	
↑	1	0	1	Rothamsted (Harpenden)	↓	45	53	2116	1254	434	555	
↓	0	0	0	Writtle	↓	118	85	1444	2176	1038	980	
↑	*1	/	0	Silwood Park (nr Ascot)	↑	*28	28	/	857	/	352	
↑	*2	/	1	Wye	↓	*77	59	/	1788	/	757	
↓	0	/	0	Starcross (nr Exeter)	↑	84	49	/	1334	356	584	

Winter Oilseed Rape Aphids

The main aphid vector of TuYV is the **peach-potato aphid**, *Myzus persicae*. The **cabbage aphid**, *Brevicoryne brassicae*, is a poor vector of TuYV, but can cause direct feeding damage to isolated plants.

- The peach-potato aphid was caught in eleven suction-traps this week with numbers increasing at ten of these traps and with highest numbers at Wellesbourne (21), Broom's Barn (16) and Writtle (15).
- The cabbage aphid was caught at three sites this week, with a hotspot at Wellesbourne (26).

<i>Brevicoryne brassicae</i>				27/10-02/11	<i>Myzus persicae</i>			
Compared to last week	2014	2013	04-13		Compared to last week	2014	2013	04-13
	0	0	0	Gogarbank (Edinburgh)	↑	2	0	0
	0	/	0	Newcastle	↓	0	/	0
	0	0	0	Preston	↑	6	0	3
↓	1	0	22	Kirton	↑	9	0	25
	0	0	0	Broom's Barn (nr Bury St Edmunds)	↑	16	0	5
↑	*26	/	/	Wellesbourne	↑	*21	/	/
↑	1	0	0	Hereford	↑	5	0	1
	0	0	0	Rothamsted (Harpenden)	↑	9	0	1
	0	0	0	Writtle	↑	15	0	3
	*0	/	0	Silwood Park (nr Ascot)	↑	*4	/	1
	*0	/	0	Wye	↓	*5	/	4
	0	/	0	Starcross (nr Exeter)	↑	6	/	0



Further information

www.hgca.com/pests

www.potato.org.uk/online-toolbox/aphid-monitoring

[Rothamsted Insect Survey](#)

[HDC pest bulletin](#)

<http://www.sasa.gov.uk/seed-ware-potatoes/virology/virus-epidemiology>

Please send information on crop aphids to

mark-s.taylor@rothamsted.ac.uk

richard.harrington@rothamsted.ac.uk

