

APHID ALERT SUMMARY

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

Aphid flight into crops (primary infection)

Aphid numbers are down compared to the previous week. Numbers of bird cherry–oat aphid are about average for the time of year and most are flying to bird cherry, not cereals. Numbers of peach–potato aphid are above average. 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)

Conditions are still permitting aphid development, reproduction and movement within crops and, if aphids can be found easily, measures to control them (and hence reduce the risk of virus spread) remain justified. Bear in mind that resistance of the grain aphid to pyrethroids is common. The only insecticides available for use in OSR are Plenum, Teppeki and Biscaya.

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

SUCTION-TRAPPING RESULTS



Suction-trap sites

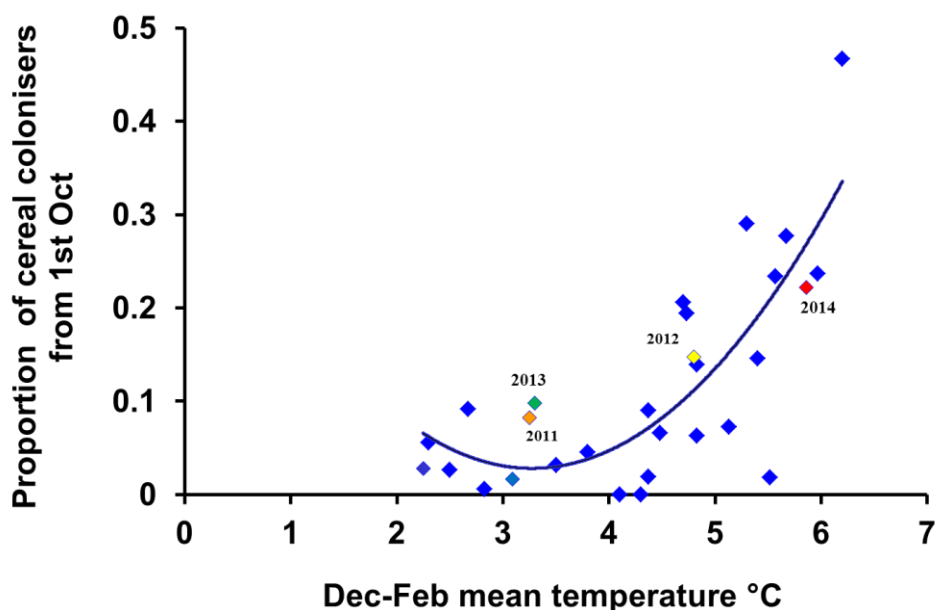
Winter Cereal Aphids

The aphid autumn migration is now all but finished for this year. The table below shows the combined total of both forms of **female** bird cherry–oat aphids, *Rhopalosiphum padi*, caught during the week **03/11-09/11** 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 crop 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.

- Numbers of bird cherry–oat aphids flying peaked at the end of September and the beginning of October and remained above the ten year means through much of a very warm October.
- The majority of the bird cherry–oat aphids tested at Rothamsted were going to bird cherry trees to lay eggs rather than going to cereals to potentially spread BYDV. However, the actual proportion of the cereal colonising forms was higher than last year, as we had expected based on the unusually warm temperatures during the 2013/14 winter (see graph below). Numbers of the cereal colonising form peaked in mid-October.
- Although flight activity may be slowing, aphids that have found crops will do well until we have some significant frosts. Activity on the ground should continue with development and reproduction possible above 4°C and walking between plants above 1°C.
- In autumn the number of grain aphids, *Sitobion avenae*, flying tends to be low, but tests at Rothamsted show moderate resistance to pyrethroids is now widespread in this species so, where used, full rates should be applied.

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>				03/11-09/11	<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)	↓	8	2	2247	2262	618	660	
	*1	0	0	Newcastle		*96	7	/	2066	/	506	
	*0	/	0	Preston	↓	*106	71	/	7695	/	3163	
↓	*0	0	0	Kirton	↓	*16	28	5126	1964	1610	1195	
	0	0	0	Broom’s Barn (nr Bury St Edmunds)	↓	8	21	3385	1530	555	727	
	0	0	0	Wellesbourne	↓	9	/	/	/	/	/	
↓	0	/	/	Hereford	↓	11	18	4602	1956	784.7	932	
↓	0	0	0	Rothamsted (Harpenden)	↓	7	14	2123	1268	441	569	
↑	2	0	0	Writtle	↓	11	22	1455	2198	1049	1002	
	0	0	0	Silwood Park (nr Ascot)	↓	1	12	/	869	/	364	
↓	0	/	0	Wye	↓	18	27	/	1815	/	784	
↓	1	/	0	Starcross (nr Exeter)	↓	16	21	/	1355	372	605	



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.

- There has been a steady and extended stream of peach-potato aphids in our suction-traps throughout a warm autumn. This has been reflected in many reports of infestations in untreated oilseed rape crops across the country with the potential for TuYV spread.
- The cabbage aphid has been much less numerous in the suction-traps, but relative hotspots have been at Wellesbourne and Kirton, both closely allied to winter vegetable brassica growing areas.

<i>Brevicoryne brassicae</i>				03/11-09/11	<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)	↓	0	0	0
	*0	/	0	Newcastle		*0	/	0
	*0	0	0	Preston	↓	*0	0	0
↓	*0	0	0	Kirton	↓	*2	0	4
	0	0	0	Broom's Barn (nr Bury St Edmunds)	↓	3	0	1
↓	1	/	/	Wellesbourne	↓	7	/	/
↓	0	0	0	Hereford	↓	1	0	0
	0	0	0	Rothamsted (Harpenden)	↓	4	0	0
	0	0	0	Writtle	↓	5	0	0
	0	/	0	Silwood Park (nr Ascot)	↓	0	/	0
	0	/	0	Wye	↓	1	/	1
	0	/	0	Starcross (nr Exeter)	↓	0	/	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

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