

APHID ALERT SUMMARY

GENERAL

The weather over the last week has been unsettled and very variable, with temperatures averaging 12°C, but rising into the 20s over last weekend. This has resulted in a period of stop/start aphid flight activity, particularly in the south.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) in suction-traps are rising, but at present are well below normal for the time of year everywhere, except north-west England. Numbers of grain aphid (*Sitobion avenae*) are about normal. Drilling of winter wheat is underway, but the majority of crops are yet to emerge. Most winter barley drilling is not expected to commence until next week at the earliest. Hence, we have received no field reports of cereal aphids on winter crops, but a few reports of aphid colonies on cereal volunteers in northern regions.

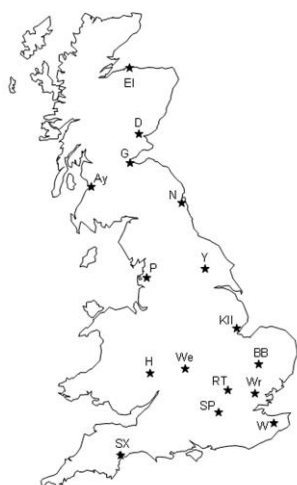
Only a small proportion of aphids entering cereals are likely to be carrying BYDV. Problems with spread arise when the offspring of the offspring of the winged colonisers are produced as, if the weather remains clement, this is usually the generation that begins moving significantly away from the plant originally colonised. Approximately, this begins when 170 day degrees above a threshold of 3°C (DD>3) have accumulated. For example, if the average temperature on a particular day was 13°C, 10DD>3 would have accumulated that day, meaning that it would take 17 days at that temperature to reach the 170DD>3. Once this generation becomes adult (after about 340DD>3) very significant spread can occur. DD>3 calculations should begin on the day of emergence for untreated crops, 1 week after application of pyrethroids or 6 weeks after emergence for crops from neonicotinoid-treated seed.

WINTER OILSEED RAPE

No peach–potato aphids (*Myzus persicae*) or mealy cabbage aphids (*Brevicoryne brassicae*) have been found in the suction-traps this week, except for a minor hotspot for both species at our trap in Kirton, Lincolnshire. Winter oilseed rape drilling is largely complete and crops that have emerged typically have both cotyledons unfolded (GS 1, 0). No field reports of aphids on newly emerged oilseed rape crops have been received, but we have received a report of slowly rising numbers of both species on **vegetable brassicas** in Kent and S.Essex.

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

SUCTION-TRAPPING RESULTS



Winter Cereal Aphids

The main aphid vectors of BYDV are females of the **bird cherry–oat aphid**, *Rhopalosiphum padi*, and the **English grain aphid**, *Sitobion avenae*. This news sheet is the first of a weekly series covering the period of risk of infection from migrant aphids entering newly emerged crops. The table shows numbers of **female** bird cherry–oat aphid caught during the week **14/9-20/9** and compares them to last year and a ten year mean for that week. English grain aphids always fly in much lower numbers than bird cherry–oat aphids in the autumn, but we will comment on any unusual flight activity.

The information below relates to suction-trap samples collected during Bulletin Week 24: 14/9-20/9.

- Numbers of bird cherry–oat aphid were rising at all sites this week, but are below the ten year means everywhere except Preston.
- The grain aphid was caught at four sites, with a hotspot at Edinburgh (18).

Suction-trap sites

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>				14/09-20/09	<i>Rhopalosiphum padi</i> - females only			
Compared to last week	2015	2014	05-14		Compared to last week	2015	2014	05-14
↑	18*	/	2	Gogarbank (Edinburgh)	↑	473*	/	721
↓	5	/	1	Newcastle	↑	436	/	739
↓	0	/	/	York	↑	316	/	/
	2	0	1	Preston	↑	3709	5073	2098
↓	0	1	1	Kirton	↑	82	1350	525
	0	17	2	Broom's Barn (Bury St Edmunds)	↑	23	664	532
↓	0*	4	1	Wellesbourne	↑	109*	847	598
↑	2	3	2	Hereford	↑	253	1400	504
	0	1	1	Rothamsted (Harpenden)	↑	25	465	282
	0	0	1	Writtle	↑	76	3	456
	0	/	1	Silwood Park (nr Ascot)	↑	53	/	203
	0	/	2	Wye	↑	42	/	618
	0	5	3	Starcross (nr Exeter)	↑	86	686	185

Winter Oilseed Rape 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.

- Numbers of peach–potato aphid and mealy cabbage aphid in the suction-traps are very low this week except for a minor hotspot at Kirton for both species.

<i>Brevicoryne brassicae</i>				14/09-20/09	<i>Myzus persicae</i>			
Compared to last week	2015	2014	05-14		Compared to last week	2015	2014	05-14
	0*	/	0	Gogarbank (Edinburgh)	↓	0*	/	0
	0	/	0	Newcastle		0	/	1
	0	/	/	York	↓	0	/	/
	0	0	0	Preston	↓	0	2	1
↑	5	2	2	Kirton	↑	7	9	3
	0	0	1	Broom's Barn (Bury St Edmunds)		0	7	2
	0*	/	1	Wellesbourne		0*	/	4
	0	1	2	Hereford		0	6	4
	0	0	0	Rothamsted (Harpenden)	↑	1	5	2
	0	0	1	Writtle		0	0	3
	0	/	0	Silwood Park (nr Ascot)		0	/	1
	0	/	0	Wye		0	/	1
	0	/	2	Starcross (nr Exeter)	↓	0	/	2

Further information

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

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