



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

The weather over the last week has been unseasonably warm, especially in the South East, with UK temperatures some 4°C above average. This has resulted in good conditions for insect flight.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) were rising at 11/14 suction-trap sites this week. Numbers were highest in the North with hotspots also at two western sites (Hereford and Starcross). Numbers of grain aphid (*Sitobion avenae*) were about normal, with a minor hotspot at Dundee. Drilling of winter wheat and winter barley has started, but, as yet, no reports of crops emerging. Hence, we have received no field reports of cereal aphids on new-season winter crops, but a few reports of aphid colonies on cereal volunteers.

Only a small proportion of aphids 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. 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 and VEGETABLE BRASSICAS

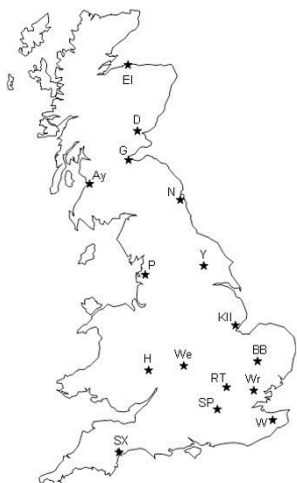
Numbers of peach–potato aphids (*Myzus persicae*) and mealy cabbage aphids (*Brevicoryne brassicae*) are low but normal for the time of year. Winter oilseed rape drilling is largely complete and earliest drilled crops are at GS1,3 – 1,4 while many are yet to emerge. We have seen one field report of aphids on emerging oilseed rape but the species was not specified.

OTHERS

Aphids are no longer an issue in most other crops either because the crop is too mature to be vulnerable or the crop has been harvested. The pea harvest is virtually complete and the winter bean harvest is progressing well. In potato crops, burning off activities are increasing in most areas. In carrots, the period of likely virus transmission has probably passed and any willow-carrot aphids flying in the next few weeks will be returning to willow.

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 edition contains the first weekly reports covering the infection risk period associated with migrant aphids entering newly emerged crops. The table shows numbers of **female** bird cherry-oat aphid caught during the week **5/9-11/9** and compares them to last year, along with 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 25: 05/9-11/9.

- Numbers of bird cherry-oat aphid were rising at 11/14 sites this week.
- Numbers were highest in the North, with hotspots at two western sites (Hereford and Starcross).
- The grain aphid was caught at eight sites, with a hotspot at Dundee (36).

'*' 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>				05/09-11/09	<i>Rhopalosiphum padi</i> - females only			
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2015	2006-2015
↑	36	/	3	Dundee	↑	344	0	177
↑	9	15	6	Gogarbank (Edinburgh)	↑	953	54	225
↓	*11	12	6	Newcastle	↑	*495	71	144
↑	*4	3	/	York	↓	*46	89	/
	*0	2	2	Preston		*56	146	301
↑	*4	0	10	Kirton	↓	*28	17	87
↓	*0	0	2	Broom's Barn (Bury St Edmunds)	↑	*39	12	50
↑	*7	0	5	Wellesbourne	↑	*74	12	107
↓	*17	0	4	Hereford	↑	*210	14	114
↓	*0	0	2	Rothamsted (Harpenden)	↑	*59	5	32
↑	*6	0	3	Writtle	↑	*90	5	39
	*0	0	1	Silwood Park (nr Ascot)	↑	*81	3	52
↓	*0	0	2	Wye	↑	*68	9	59
↓	*0	0	1	Starcross (nr Exeter)	↑	*120	45	105

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 six suction-trap sites, with highest numbers at Dundee.
- The mealy cabbage aphid was caught at just two sites, Kirton and Hereford.
- Numbers of both species are normal for the time of year.

<i>Brevicoryne brassicae</i>				05/09-11/09	<i>Myzus persicae</i>			
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2015	2006-2015
	0	/	1	Dundee	↑	12	/	2
	0	0	2	Gogarbank (Edinburgh)	↑	1	0	0
	*0	0	0	Newcastle		*0	0	1
	*0	0	/	York		*0	1	/
	*0	0	0	Preston	↓	*0	0	1
↑	*8	0	2	Kirton	↓	*1	0	5
↓	*0	0	0	Broom's Barn (Bury St Edmunds)	↑	*1	0	1
	*0	0	0	Wellesbourne	↑	*6	0	1
↑	*3	0	2	Hereford	↑	*7	0	1
	*0	0	0	Rothamsted (Harpenden)		*0	0	0
↓	*0	0	1	Writtle		*0	0	1
	*0	0	0	Silwood Park (nr Ascot)		*0	0	0
	*0	0	1	Wye	↓	*0	0	4
↓	*0	0	4	Starcross (nr Exeter)	↓	*0	2	4

Further information

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

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