



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

Another week where the weather continued mainly dry, but with noticeably shortening day-lengths and colder nights. Aphid flight activity fell through most of the country.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) fell at ALL our suction-trap sites this week. Numbers were highest in Scotland and at Preston, but below the 10-yr means for this time of year throughout England. Single grain aphids (*Sitobion avenae*) were caught at two sites in south east England. The earliest sown crops have emerged and reached early leaf development (GS11-14), whilst many more are yet to emerge. Drilling of second wheat crops has begun. We have received no reports of aphid colonies on newly emerged cereals as yet. Aphids are however widespread on cereal volunteers and green stubbles left to encourage blackgrass to chit.

Only a small proportion of aphids entering cereals 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. Very 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 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

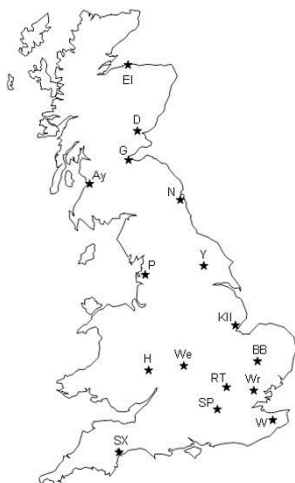
Peach–potato aphids (*Myzus persicae*) were caught at nine suction-trap sites this week, with a hotspot at Dundee. A single mealy cabbage aphid (*Brevicoryne brassicae*) was caught at Edinburgh. Winter oilseed rape earliest drilled crops range from GS1,2 – 1,10, whilst later drillings are yet to emerge. We have received a few field reports from eastern England of peach–potato aphids on emerging oilseed rape and recommend monitoring crops now.

OTHERS

Aphids are no longer an issue in most other crops. There were very noticeable willow-carrot aphid hotspots at the Elgin and Dundee suction-traps this week, but most carrots have probably passed the period of likely virus transmission.

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 fallen right across the Country. The table below shows the combined total of both forms of **female** bird cherry-oat aphids caught during the week **26/9 -02/10** and compares them to last year and a ten year mean. English grain aphids (*Sitobion avenae*) always fly in much lower numbers than bird cherry-oat aphids in the autumn.

During the period **30/9 – 06/10** nine *R. padi* were tested at Rothamsted, seven were of the cereal colonising form (30 year weekly mean = 5). 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 fell at **ALL** sites this week. Numbers were highest in Scotland and at Preston, but below the 10-yr means for this time of year throughout England.
- The number and proportion of cereal-colonising bird cherry-oat aphids are slightly above the long term average for the time of year at Rothamsted, whereas the number of bird cherry colonising form is surprisingly low.
- Single grain aphids were caught at two sites in the south east.

'*' 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>				26/09-02/10	<i>Rhopalosiphum padi</i> - females only			
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2015	2006-2015
↓	*0	/	0	Dundee	↓	*809	0	294
	0	6	3	Gogarbank (Edinburgh)	↓	578	1904	945
	*0	0	1	Newcastle	↓	*35	844	766
	*0	0	/	York	↓	*67	587	/
	*0	0	1	Preston	↓	*658	6176	3124
↓	*0	1	1	Kirton	↓	*16	79	599
	*0	0	0	Broom's Barn (Bury St Edmunds)	↓	*11	153	688
	*0	0	1	Wellesbourne	↓	*20	77	401
↓	*0	0	1	Hereford	↓	*54	302	984
	*0	0	1	Rothamsted (Harpenden)	↓	*23	130	548
↑	*1	1	1	Writtle	↓	*27	93	579
	*0	0	0	Silwood Park (nr Ascot)	↓	*13	88	325
↑	*1	0	2	Wye	↓	*65	110	573
	*0	1	2	Starcross (nr Exeter)	↓	*131	131	573

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 nine suction-trap sites, with a hotspot at Dundee.
- A single mealy cabbage aphid was caught at Edinburgh.

<i>Brevicoryne brassicae</i>				26/09-02/10	<i>Myzus persicae</i>			
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2015	2006-2015
↓	*0	/	0	Dundee	↑	*23	/	1
↑	1	0	0	Gogarbank (Edinburgh)		0	0	0
	*0	0	0	Newcastle		*0	0	0
	*0	0	/	York		*0	0	/
	*0	0	1	Preston		*0	0	1
	*0	9	7	Kirton	↓	*5	1	18
	*0	0	1	Broom's Barn (Bury St Edmunds)	↓	*4	0	5
	*0	0	1	Wellesbourne		*4	0	5
	*0	0	1	Hereford	↑	*1	2	4
	*0	0	0	Rothamsted (Harpenden)	↓	*2	0	2
↓	*0	0	0	Writtle	↓	*1	2	4
	*0	0	0	Silwood Park (nr Ascot)		*0	4	1
↓	*0	0	0	Wye	↓	*4	1	5
↓	*0	0	2	Starcross (nr Exeter)	↑	*5	0	4

Further information

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

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