



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

Aphid flight activity and the threat of **primary** infections by aphid-borne viruses (BYDV and TuYV) have dropped considerably due to the recent cold weather. There is still the potential for a late trickle should good flight conditions return, but this diminishes the longer the cold spell continues. However, the movement of aphids within unprotected crops and the potential for **secondary** spread of aphid-borne viruses remains. Although colder conditions will greatly reduce aphid development and movement within untreated crops, activity on the ground could continue with development and reproduction possible above 3-4°C and walking between plants above 1°C. It's hard to be precise about the level of frost needed to deliver a knock-out blow, but three to five consecutive days with grass minima dropping below -6°C should cause high mortality.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) fell markedly at 11 of the 12 English suction-trap sites this week. Single grain aphids (*Sitobion avenae*) were caught at Rothamsted and Starcross. Typical crops range from one true leaf (GS11) all the way up to early tillering (GS21). Field reports from southern and eastern England suggest aphid numbers on unprotected cereal crops are generally low, but it is possible that seed treatments on early drilled cereal crops could now be running out of persistence and a follow up may be required.

Monitoring crops for aphid activity is recommended.

Use the t-sum of 170 day degrees above a threshold of 3°C to signal the start of secondary spread of aphids and BYDV within a crop. 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

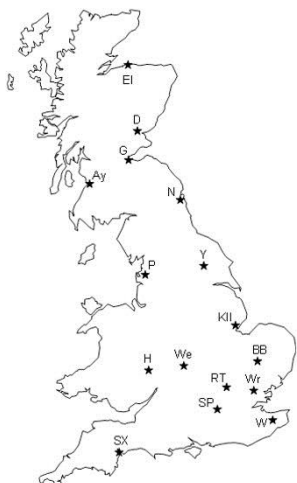
Peach–potato aphids (*Myzus persicae*) were caught in low numbers at four suction-trap sites. A single mealy cabbage aphid (*Brevicoryne brassicae*) was caught at Starcross this bulletin week, but none elsewhere. Typical crops range from backward crops at GS1,4 to the most forward at GS1,15. Field reports of peach–potato aphids in oilseed rape crops are common across central, eastern and southern England, especially where the crops have not had a Biscaya or Plenum treatment yet. **We recommend monitoring crops for aphids.**

OTHERS

At this time of year aphids are no longer an issue in most other crops.

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. The table below shows the combined total of both forms of **female** bird cherry–oat aphids caught during the week **31/10 - 06/11** and compares them to last year and a ten year mean. The table also includes numbers accumulated from a start date (**26/09**) representing **early emergence** and thus gives an indication of the build-up of virus vector pressure. English grain aphids (*Sitobion avenae*) always fly in much lower numbers than bird cherry–oat aphids in the autumn.

- Numbers of bird cherry–oat aphid fell markedly at 11 of the 12 English suction-trap sites this week.
- Numbers accumulated from an early emergence date are all well below the 10 yr accumulated means suggesting little build-up of virus vector pressure.
- Single grain aphids were caught at Rothamsted and Starcross.

'*' 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>				31/10-06/11	<i>Rhopalosiphum padi</i> - females only				
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2006-2015	2016 Acc from 26/09	2006-2015 Acc from 26/09
↓	0	0	0	Gogarbank (Edinburgh)	↓	27	17	1637	1860
	0	1	0	Newcastle	↑	59	25	511	1796
	0	0	/	York	↓	52	/	332	
	0	0	0	Preston	↓	105	123	3050	8053
	0	0	0	Kirton	↓	7	38	225	2029
	0	0	0	Broom's Barn (nr Bury St Edmunds)	↓	44	28	213	1720
	0	1	0	Wellesbourne	↓	22	22	157	1433
	0	1	0	Hereford	↓	3	39	171	2250
↑	1	0	0	Rothamsted (Harpenden)	↓	19	21	95	1296
	0	0	0	Writtle	↓	4	30	136	1979
	0	1	0	Silwood Park (nr Ascot)	↓	4	27	74	914
↓	0	0	0	Wye	↓	31	51	296	1715
↑	1	4	0	Starcross (nr Exeter)	↓	45	36	514	1388

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 in low numbers at four suction-trap sites.
- One mealy cabbage aphid was caught at Starcross this bulletin week, but none elsewhere.

<i>Brevicoryne brassicae</i>				31/10-06/11	<i>Myzus persicae</i>			
Compared to last week	2016	2015	2006-2015		Compared to last week	2016	2015	2006-2015
	0	0	0	Gogarbank (Edinburgh)		0	0	0
	0	0	0	Newcastle		0	0	0
	0	0	/	York		0	0	/
	0	0	0	Preston	↑	2	0	2
	0	0	6	Kirton	↓	4	3	11
	0	0	0	Broom's Barn (nr Bury St Edmunds)	↓	1	0	4
	0	0	0	Wellesbourne	↓	0	0	1
	0	0	0	Hereford	↓	0	2	1
	0	0	0	Rothamsted (Harpenden)	↓	0	0	2
↓	0	0	0	Writtle		0	2	1
	0	0	0	Silwood Park (nr Ascot)	↓	0	0	1
	0	0	0	Wye		0	2	3
↑	1	0	0	Starcross (nr Exeter)	↓	3	14	2

Further information

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

AHDB Cereals and Oilseeds: [Click here](#)

AHDB Potatoes: [Click here](#)

AHDB Horticulture: [Click here](#)

[#APHIDMONITORING](#)

Rothamsted Insect Survey: [Click here](#)

Science and Advice for Scottish Agriculture (SASA): [Click here](#)

In partnership with



AHDB Aphid News 2016

AHDB publications are free to levy payers

Electronic version can be downloaded at cereals.ahdb.org.uk

To join the mailing lists, contact: cereals.subscriptions@ahdb.org.uk

While the Agriculture and Horticulture Development Board seeks to ensure that the information contained within this document is accurate at the time of printing, no warranty is given in respect thereof and, to the maximum extent permitted by law, the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document. Reference herein to trade names and proprietary products without stating that they are protected does not imply that they may be regarded as unprotected and thus free for general use. No endorsement of named products is intended, nor is any criticism implied of other alternative but unnamed products.

© Agriculture and Horticulture Development Board 2016. All rights reserved.