

APHID ALERT SUMMARY

GENERAL

Aphid flight activity and the threat of primary infections by aphid-borne viruses (BYDV and TuYV) have dropped considerably due to the recent wet and windy conditions. There is still the potential for a late trickle should good flight conditions return, but this diminishes with time. However the movement of aphids within unprotected crops and the potential for secondary spread of aphid-borne viruses remains high with the mild conditions running at 4.5°C above the seasonal average. It is important that vigilance is maintained until colder weather takes hold.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) in suction-traps have decreased everywhere compared to last week, however numbers flying are at or slightly above average for this late in the year. It is important to remember that most of these will be going to bird cherry and will play no part in BYDV spread.

Numbers of grain aphid (*Sitobion avenae*) are generally very low.

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.

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 6 weeks after emergence for crops from neonicotinoid-treated seed.

WINTER OILSEED RAPE and VEGETABLE BRASSICAS

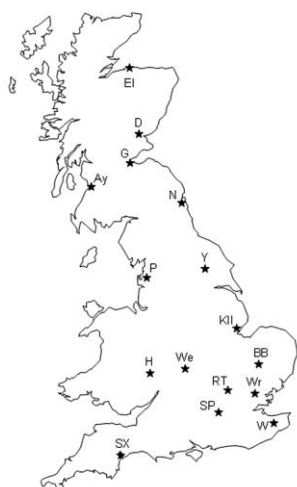
The autumn flight of peach–potato aphids (*Myzus persicae*) has continued, with a noticeable hotspot in the south west. No mealy cabbage aphids (*Brevicoryne brassicae*) have been found in the suction-traps this week. There have been field reports of 15 % of plants infested with peach–potato aphids in Cambridgeshire and Norfolk crops, and significant recent increases in peach–potato aphid numbers in rape crops in Sussex and Kent. Earliest sown ‘advanced’ crops remain susceptible, although the impact decreases with age at time of infection. The Emergency Authorisation for Teppeki (flonicamid) for aphid control in oilseed rape means there is now an additional spray option (which the peach–potato aphid has not developed resistance to) to reduce levels of Turnip yellows virus (TuYV). Foliar applied pymetrozine (Plenum) and thiacloprid (Biscaya) are also viable alternatives. Do not use more than one autumn foliar application of any neonicotinoid insecticide on OSR.

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



Suction-trap sites

Winter Cereal Aphids

Numbers of **female bird cherry–oat aphid**, *Rhopalosiphum padi*, flying this bulletin week have fallen everywhere. The table below shows the combined total of both forms of **female** bird cherry–oat aphids caught during the week **2/11 - 8/11** and compares them to last year and a ten year mean. The table also includes numbers accumulated from a start date (**5/10**) representing **earliest emergence** and thus gives 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.

During the period **2/11 – 12/11** just two *R. padi* were caught and tested at Rothamsted, neither was of the cereal colonising form (29 year mean = 1). The cereal colonising/bird cherry colonising data are only available for the Rothamsted site. The level of cereal colonisers is likely to be higher towards the south and west.

- Numbers of bird cherry–oat aphid have decreased at all eleven suction-trap sites. Numbers are above the ten year means for same time period, particularly at Newcastle, Preston, Wye and Starcross.
- Single grain aphids were caught at four suction-trap sites this week.
- The Rothamsted Tower trap is currently not operating due to accidental damage (NA=not available).

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>				02/11-08/11	<i>Rhopalosiphum padi</i> - females only				
Compared to last week	2015	2014	05-14		Compared to last week	2015	05-14	2015 Acc from 05/10	05-14 Acc from 05/10
↓	0	/	0	Newcastle	↓	42	3	2456	223
	0	/	/	York	↓	32	/	1278	
	0	0	0	Preston	↓	166	28	7728	2290
	0	0	0	Kirton	↓	13	12	437	777
	0	0	0	Broom's Barn (Bury St Edmunds)	↓	15	8	435	504
↑	1	/	1	Wellesbourne	↓	12	8	385	591
	1	0	0	Hereford	↓	21	13	770	635
	NA	2	0	Rothamsted (Harpenden)		NA	10	NA	389
	0	0	0	Writtle	↓	18	12	553	687
↓	1	/	0	Silwood Park (nr Ascot)	↓	13	9	188	344
	0	/	0	Wye	↓	36	9	558	652
↓	1	/	0	Starcross (nr Exeter)	↓	40	10	764	386

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 five sites, with a hotspot at Starcross (10).
- No mealy cabbage aphids were caught in the suction-traps this week.

<i>Brevicoryne brassicae</i>				02/11-08/11	<i>Myzus persicae</i>			
Compared to last week	2015	2014	05-14		Compared to last week	2015	2014	05-14
	0	/	0	Newcastle		0	/	0
	0	/	/	York	↓	0	/	/
	0	0	0	Preston	↓	0	0	0
	0	0	0	Kirton		2	2	5
	0	0	0	Broom's Barn (Bury St Edmunds)		0	3	2
	0	/	0	Wellesbourne	↓	0	/	1
	0	0	0	Hereford	↓	1	1	0
	NA	0	0	Rothamsted (Harpenden)		NA	4	1
	0	0	0	Writtle		2	5	1
	0	/	0	Silwood Park (nr Ascot)		0	/	0
	0	/	0	Wye	↑	2	/	3
↓	0	/	0	Starcross (nr Exeter)	↓	10	/	0

Further information

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

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