

## APHID ALERT SUMMARY

### GENERAL

The weather has been good for aphid flying and multiplication and numbers are building. Unfortunately we have no data available for Newcastle, Silwood, Wye or Scotland this week.

### WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) in the suction-traps have risen considerably and are well above average for the time of year (see tables below). Many of these will be going to bird cherry and will play no part in BYDV spread, but some will be colonising newly emerging cereals. At Rothamsted we operate an additional trap from which we determine the proportion of each life-cycle type. These tests were started this week. Of 33 aphids tested, one was of the cereal colonising form, a lower proportion than usual for this time of year. The proportion is likely to be higher towards the south and west and lower towards the north and east.

Numbers of English grain aphid (*Sitobion avenae*) in suction-traps are higher than usual.

Only a small proportion of aphids entering cereals (usually less than 2%, although we no longer routinely test this) 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. Very approximately this begins after 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

Numbers of peach–potato aphid (*Myzus persicae*) in suction-traps have risen and are slightly higher than normal for the time of year. Crops are being colonised. We inspected 100 plants at Rothamsted and found 8 winged adults and one wingless offspring. Reports of colonisers have been received from many parts of the Country, especially in the southern half. The proportion of aphids carrying TuYV varies but is likely to average around 30%. The availability of flonicamid (Teppeki) for aphid control means that there is now the option of a second spray. If aphids can be found easily in a crop it is time to consider the first.

**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 **15/9-21/9** 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 25: 15/9-21/9.

- Drilling of winter wheat is progressing well with most first wheats in and a start made on drilling second wheats.
- Numbers of bird cherry–oat aphid were above the ten year means at all sites this week except Writtle which may be a malfunction which we are currently investigating.
- The grain aphid was caught at most sites with a hotspot at Broom’s Barn (17).

### 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>			15/09-21/09	<i>Rhopalosiphum padi</i> - females only			
2014	2013	04-13		Compared to last week	2014	2013	04-13
/	/	1	Newcastle		/	/	543
*0	0	1	Preston	↑	*5073	2306	1117
1	0	0	Kirton	↑	1350	16	110
17	0	1	Broom’s Barn (nr Bury St Edmunds)	↑	664	90	159
*4	/	/	Wellesbourne	↑	*847	/	228
3	0	2	Hereford	↑	1400	147	200
1	0	1	Rothamsted (Harpenden)	↑	465	75	128
0	0	1	Writtle	↑	3	141	189
/	/	1	Silwood Park (nr Ascot)		/	/	118
/	/	2	Wye		/	/	197
*5	/	2	Starcross (nr Exeter)	↑	*686	/	139

## 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 **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.

- Most winter rape crops have now been sown, and on average the crops have reached the third true leaf stage.
- Numbers of peach-potato aphids are slowly building in the suction-traps but very few cabbage aphids are around this week.

<i>Brevicoryne brassicae</i>			15/09-21/09	<i>Myzus persicae</i>		
2014	2013	04-13		2014	2013	04-13
/	/	0	Newcastle	/	/	1
*0	0	0	Preston	*2	1	1
2	1	2	Kirton	9	1	3
0	0	1	Broom's Barn (nr Bury St Edmunds)	7	2	1
*0	/	/	Wellesbourne	*4	/	/
1	11	2	Hereford	6	6	4
0	2	0	Rothamsted (Harpenden)	5	0	2
0	0	1	Writtle	0	0	3
/	/	0	Silwood Park (nr Ascot)	/	/	1
/	/	0	Wye	/	/	2
*0	/	2	Starcross (nr Exeter)	*11	/	1



### Further information

[www.hgca.com/pests](http://www.hgca.com/pests)

[www.potato.org.uk/online-toolbox/aphid-monitoring](http://www.potato.org.uk/online-toolbox/aphid-monitoring)

[Rothamsted Insect Survey](#)

[HDC pest bulletin](#)

<http://www.sasa.gov.uk/seed-ware-potatoes/virology/virus-epidemiology>

**Please send information on crop aphids to**

[mark-s.taylor@rothamsted.ac.uk](mailto:mark-s.taylor@rothamsted.ac.uk)

[richard.harrington@rothamsted.ac.uk](mailto:richard.harrington@rothamsted.ac.uk)

