

## APHID ALERT SUMMARY

### GENERAL

The gradually falling temperatures have led to less aphid flight activity during bulletin week 12<sup>th</sup> to 18<sup>th</sup> October. If aphids have located unprotected crops, reproduction will continue at temperatures of 3°C and above, the rate increasing in proportion to temperature.

### WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) in suction-traps have decreased compared to last week in all the suction-traps, but numbers are above average in the west and far south east. Many of these will be going to bird cherry and will play no part in BYDV spread, but some will be searching for newly emerging cereals. At Rothamsted we operate an additional trap from which we determine the proportion of each life-cycle type. Only 10 bird cherry–oat aphids were caught during the week 12<sup>th</sup> - 18<sup>th</sup> October, and when tested none were 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.

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

Drilling of winter wheat and winter barley is nearly complete and many have now emerged and typically have three true leaves (GS13). A few field reports of low numbers of cereal aphids on winter crops have been received from southern and eastern England.

Only a small proportion of aphids entering cereals 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 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

The small autumn flight of peach–potato aphids (*Myzus persicae*) has dropped right off this week. No mealy cabbage aphids (*Brevicoryne brassicae*) have been found in the suction-traps this week. Winter oilseed rape drilling is complete and typical crops now have reached the three to five true leaves stage (GS 1,3-1,5). No further field reports of aphids arriving on newly emerged oilseed rape crops have been received.

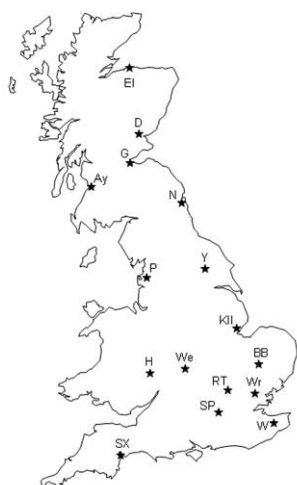
No further reports of mealy cabbage aphids on vegetable brassicas have been received.

### 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 willow-carrot aphid is flying across much of the country but the vast majority of these will be returning to willow for the winter.

**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 decreased right across the country. The table below shows the combined total of both forms of **female** bird cherry–oat aphids caught during the week **12/10–18/10** 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 **12/10 – 18/10 10** *R. padi* were tested at Rothamsted, none were of the cereal colonising form (29 year weekly mean = 4). 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 were falling at all 12 suction-trap sites. Numbers were above the ten-year means for this bulletin week at the three western sites (P, H and SX) and at Wye in the far south east.
- The grain aphid was caught at two sites in low numbers.

### 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>				12/10-18/10	<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	↓	53	47	827	181
↑	1	/	/	York	↓	135	/	816	
	0	0	0	Preston	↓	1396	544	5794	1916
	0	2	1	Kirton	↓	57	102	315	611
	0	0	0	Broom's Barn (Bury St Edmunds)	↓	102	96	302	388
↓	0	/	0	Wellesbourne	↓	36	168	243	498
	0	0	1	Hereford	↓	167	103	502	531
↓	0	2	1	Rothamsted (Harpenden)	↓	26	76	127	294
	0	1	0	Writtle	↓	54	193	408	546
	0	/	1	Silwood Park (nr Ascot)	↓	21	83	100	271
↑	2	/	2	Wye	↓	156	110	332	522
	0	/	1	Starcross (nr Exeter)	↓	190	80	455	285

## 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 four sites in low numbers.
- No mealy cabbage aphids were caught in the suction-traps this week.

<i>Brevicoryne brassicae</i>				12/10-18/10	<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	1	2
	0	0	6	Kirton	↓	2	21	25
	0	0	0	Broom's Barn (Bury St Edmunds)	↓	1	7	6
	0	/	1	Wellesbourne		0	/	5
	0	0	4	Hereford		0	2	4
	0	0	0	Rothamsted (Harpenden)		0	1	1
	0	0	0	Writtle	↓	0	4	2
	0	/	0	Silwood Park (nr Ascot)		0	/	1
↓	0	/	0	Wye	↑	2	/	3
↓	0	/	0	Starcross (nr Exeter)	↓	1	/	4

## Further information

Please send information on crop aphids to: [mark-s.taylor@rothamsted.ac.uk](mailto:mark-s.taylor@rothamsted.ac.uk)

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