AHDB Aphid News (16th Oct 2015)

APHID ALERT SUMMARY

GENERAL

During bulletin week (5th to 11th October) the weather was generally dry and temperatures up to the weekend were generally conducive to aphid flight. Thereafter (10th onwards) daytime temperatures have noticeably dropped, but any aphids that have found untreated crops will be reproducing.

WINTER CEREALS

Numbers of bird cherry–oat aphid (*Rhopalosiphum padi*) in suction-traps are still increasing in northern areas, but are levelling off or falling elsewhere. 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. Of 36 aphids tested in the week 5 - 11/10, 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 just started to emerge. We have received no field reports of cereal aphids on winter crops.

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 but widespread flight of peach–potato aphids (*Myzus persicae*) has continued at five of our twelve suction-traps. Single mealy cabbage aphids (*Brevicoryne brassicae*) have been found in the suction-traps at Wye and Starcross. Winter oilseed rape drilling is complete and typical crops now have reached the four true leaf stage. Field reports of small numbers of aphids arriving on newly emerged oilseed rape crops have been received from Shropshire and south west England. The recent approval of Flonicamid (Teppeki) for aphid control in winter oilseed rape means there is now the option of a second spray to reduce levels of *Turnip yellows virus*. Note: Do not use more than one autumn foliar application of any neonicotinoid insecticide.

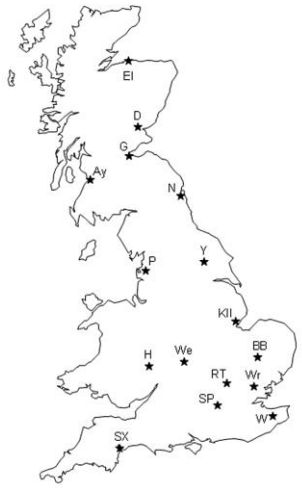
There have been further reports of mealy cabbage aphids on some vegetable brassicas in central and eastern England.

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. Numbers of the willow-carrot aphids flying have increased but 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



Suction-trap sites

Winter Cereal Aphids

Numbers of **female bird cherry–oat aphid,** *Rhopalosiphum padi*, flying this bulletin week have not changed a great deal, but remain highest in the North. The table below shows the combined total of **both forms** of **female** bird cherry–oat aphids caught during the week **5/10-11/10** and compares them to last year and a ten year mean. English grain aphids always fly in much lower numbers than bird cherry–oat aphids in the autumn.

During the period **5/10 – 11/10 36** *R. padi* were tested at Rothamsted, none were of the cereal colonising form (28 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 rising at 5/12 sites, but falling elsewhere. Numbers were above the ten year means for this bulletin week at Newcastle and Preston.
- The grain aphid was caught at two sites in low numbers.

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.

Sitobion avenae				**05/10-11/10**	***Rhopalosiphum padi* - females only**			
Compared to last week	**2015**	**2014**	**05-14**		**Compared to last week**	**2015**	**2014**	**05-14**
↓	0	0	0	Newcastle	↑	774	518	134
	0	/	/	York	↑	681	/	/
	0	/	0	Preston	↓	4398	/	1372
	0	1	1	Kirton	↑	258	329	509
↓	0	1	1	Broom's Barn (Bury St Edmunds)	↓	200	129	293
↑	1	0	1	Wellesbourne		207	473	330
	0	0	2	Hereford	↓	335	252	428
↑	1	1	0	Rothamsted (Harpenden)	↓	101	119	218
	0	1	1	Writtle	↑	354	349	353
↓	0	0	0	Silwood Park (nr Ascot)	↓	79	71	189
	0	3	1	Wye	↓	176	169	411
↓	0	0	1	Starcross (nr Exeter)	↑	265	126	206

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.

- Numbers of peach–potato aphid are about normal for the time of year, with highest numbers at Kirton (12).
- The mealy cabbage aphid was caught at two suction-traps this week in low numbers.

Brevicoryne brassicae				**05/10-11/10**	***Myzus persicae***			
Compared to last week	**2015**	**2014**	**05-14**		**Compared to last week**	**2015**	**2014**	**05-14**
	0	/	0	Newcastle		0	/	0
	0	/	/	York	↑	4	/	/
	0	/	0	Preston		0	/	2
↓	0	3	3	Kirton	↑	12	12	12
	0	0	0	Broom's Barn (Bury St Edmunds)	↓	4	1	5
	0	/	1	Wellesbourne		0	/	4
	0	0	4	Hereford	↓	0	1	7
	0	0	0	Rothamsted (Harpenden)		0	3	2
	0	0	0	Writtle		2	0	6
	0	/	0	Silwood Park (nr Ascot)	↓	0	/	1
↑	2	/	0	Wye	↓	0	/	3
↑	1	/	0	Starcross (nr Exeter)	↑	2	/	3

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

Rothamsted Insect Survey: Click here

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

In partnership with

AHDB Aphid News 2015

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