AHDB Aphid News (3rd June 2016 No.10)





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 – Aphids are straining at the shackles imposed by the unsettled windy weather which is restricting flight activity to some degree. On the ground, no such impediment is in place and numbers are quickly building in some crops but there are also reports of natural enemies performing well.

WINTER AND SPRING CEREALS

Numbers of the bird cherry—oat aphid are above the 10yr mean. Field reports indicate that, despite some cool conditions for the time of year, numbers of cereal aphids are quickly increasing. As yet, they remain below the threshold for control against direct feeding damage (i.e. 50% of tillers infested before GS61 increasing to 66% of tillers infested from GS61 to two weeks before the end of grain filling). **Monitoring crops is advised as the warmer temperatures arrive.** BYDV has been reported in both seed treated winter crops and those sprayed with pyrethroids. This is almost certainly due to the unprecedented December 2015 flights of cereal aphids highlighted in the AHDB Aphid Alert updates of 17.12.2015 and 08.01.2016. Despite various anecdotal reports, we do not have an overall figure for BYDV incidence or severity in the 2015/16 crop. Risk of BYDV infection is now declining in most spring crops as GS31 has been reached.

POTATOES

Increasing numbers of peach–potato aphids (*Myzus persicae*) have been caught throughout central, eastern and southern England but none in Scotland. Virus pressure is very high in East Anglia and the midlands, principally due to the large numbers of peach–potato aphids, after which the willow–carrot aphid accounted for most of the virus pressure this week.

The potato aphid (*Macrosiphum euphorbiae*) and the glasshouse and potato aphid (*Aulacorthum solani*) have been caught in low numbers in both ST and YWT.

Various other non-colonising vectors of PVY and PVA are flying (black bean aphid, mealy cabbage aphid, pea aphid and the cereal aphids) and can pose a threat as virus vectors through sheer weight of numbers on young plants. Further regional information on potato virus vectors can be accessed here: www.potato.org.uk/online-toolbox/aphid-monitoring.

WINTER and SPRING OILSEED RAPE

Peach—potato aphid and mealy cabbage aphid numbers, in both ST and YWTs, are increasing (especially in the midlands and East Anglia). Field reports indicate mealy cabbage aphid numbers are higher than recent years but still well below the threshold for control (which is >13% plants infested before petal fall in winter OSR and >4% plants infested before petal fall in spring OSR.)

FIELD BRASSICAS and LEAFY VEGETABLES

Peach—potato aphid and mealy cabbage aphid numbers in both ST and YWTs are increasing, especially in the Midlands and East Anglia. Single currant-lettuce aphids (*Nasonovia ribisnigri*) were caught at Hereford and Rothamsted STs.

CARROTS

The willow–carrot aphid is flying throughout England, with numbers increasing at most suction-trap sites and highest numbers in the North West and in eastern England.

PEAS and BEANS

The pea aphid was caught at 11 sites, with a hotspot at Rothamsted (40). Field reports indicate pea aphid infestations continue to increase and are approaching threshold levels in some areas. Combining peas should be sprayed when around 20% of plants are infested and vining peas when 15% are infested. Many pulse crops were drilled late and are behind in terms of growth, so viruses will have a bigger potential impact this year.

SUCTION-TRAPPING RESULTS



The information below relates to suction-trap samples collected during **Bulletin** Week 10: 23/5 – 29/5.

- Numbers of the bird cherry—oat aphid were increasing at nine sites and above the 10yr means, whereas numbers of the grain aphid and the rose—grain aphid remain close to average.
- The peach–potato aphid was caught at 11 sites, with hotspots at Writtle (61), Rothamsted (42) and Wellesbourne (33).
- The willow–carrot aphid was caught at 13 sites, with hotspots at Writtle (193), Preston (94) and Kirton (96).
- The pea aphid was caught at 11 sites, with a hotspot at Rothamsted (40).
- The mealy cabbage aphid was caught at 10 sites this week, including first arrivals at York (27/5) and Silwood (24/5) with hotspots at Wellesbourne (44) and Hereford (35).
- Two black bean aphids were caught at Starcross this week.
- Single currant-lettuce aphids (*Nasonovia ribisnigri*) were caught at Hereford and Rothamsted suction-traps this week.
- Tree aphids dominate our current suction-trap samples.

Rose-grain aphid (Metopolophium dirhodum)

Rose-grain aphid	Bulle	etin Week Totals	23/0	05-29/05	Accumula	ted until	29/05
(Metopolophium dirhodum)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	0		/	0	0	/	1
Gogarbank (Edinburgh)	1	↑	0	1	1	0	2
Newcastle	0	V	0	1	3	0	3
York	4	^	0	/	6	1	/
Preston	7	↑	1	4	10	1	9
Kirton	1	\	2	4	12	5	8
Broom's Barn (nr Bury St Edmunds)	12	↑	6	3	23	7	8
Wellesbourne	13	↑	0	4	27	1	6
Hereford	5		0	5	17	0	8
Rothamsted (Harpenden)	12	↑	2	1	27	3	3
Writtle	9	\	0	3	37	3	7
Silwood Park (nr Ascot)	5	↑	0	1	16	2	6
Wye	0	\	0	1	4	2	3
Starcross (nr Exeter)	1	↑	11	9	42	22	22

The rose–grain aphid was caught at 11 sites this bulletin week. There were small increases at eight sites and the accumulated numbers are above the 10-yr mean in central and southern England.

^{**&#}x27; indicates where totals have been corrected proportionally to seven days, fewer days' samples having been processed.

Bird cherry—oat aphid (Rhopalosiphum padi)

Bird cherry-oat aphid (Rhopalosiphum padi)	Bulletin Week Totals		23/05-29/05		Accumula	29/05	
	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	3	4	/	3	11	/	6
Gogarbank (Edinburgh)	2		0	3	5	0	6
Newcastle	0		1	2	5	1	9
York	11	1	0	/	23	2	/
Preston	8	1	0	3	17	0	13
Kirton	40	V	0	13	123	5	37
Broom's Barn (nr Bury St Edmunds)	36	1	5	12	212	6	31
Wellesbourne	51	1	0	13	123	1	33
Hereford	52	1	3	5	99	4	16
Rothamsted (Harpenden)	48	↑	3	6	136	6	22
Writtle	120	1	3	12	342	7	42
Silwood Park (nr Ascot)	16	1	0	11	118	2	42
Wye	9	V	4	32	152	11	72
Starcross (nr Exeter)	107	^	8	10	404	14	85

The bird cherry—oat aphid was caught at 13 sites this bulletin week, with hotspots at Writtle (120) and Starcross (107). Numbers are above both the 10-yr means across much of England.

Grain aphid (Sitobion avenae)

Grain aphid	Bulle	etin Week Totals	23/05-29/05		Accumula	29/05	
(Sitobion avenae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	0	\	/	1	5	/	2
Gogarbank (Edinburgh)	0		0	1	0	0	2
Newcastle	0	V	0	1	5	0	5
York	2	\	3	/	6	4	/
Preston	1	↑	0	3	1	0	5
Kirton	2		0	3	9	0	6
Broom's Barn (nr Bury St Edmunds)	1	V	0	2	15	0	3
Wellesbourne	5	↑	0	7	28	0	21
Hereford	2	↑	0	2	10	2	6
Rothamsted (Harpenden)	0	V	0	1	14	0	3
Writtle	0	→	0	1	18	2	5
Silwood Park (nr Ascot)	3	↑	1	1	15	1	7
Wye	6	↑	0	2	39	0	5
Starcross (nr Exeter)	4	↑	0	3	28	3	5

The grain aphid was caught in low numbers at nine sites this week, including a first arrival at Preston (28/5).

Peach-potato aphid (Myzus persicae)

Peach-potato aphid	Bulle	etin Week Totals	23/0	05-29/05	Accumulated until		29/05
(Myzus persicae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	0		/	0	0	/	0
Gogarbank (Edinburgh)	0		0	0	0	0	1
Newcastle	0		1	1	0	1	2
York	5	\	0	/	13	0	/
Preston	2	^	0	1	2	0	2
Kirton	3	V	0	6	26	1	13
Broom's Barn (nr Bury St Edmunds)	12	V	4	32	58	15	102
Wellesbourne	33	↑	3	15	46	5	65
Hereford	15	^	1	7	25	4	15
Rothamsted (Harpenden)	42	^	3	14	68	5	42
Writtle	61	↑	12	34	159	19	84
Silwood Park (nr Ascot)	4		1	5	12	5	13
Wye	13	↑	16	30	21	20	55
Starcross (nr Exeter)	6	↑	2	7	37	8	31

The peach–potato aphid was caught at 11 sites this week, including a first arrival at Preston (29/5) and with hotspots at Writtle (61), Rothamsted (42) and Wellesbourne (33).

Potato aphid (Macrosiphum euphorbiae)

Potato aphid	Bulle	etin Week Totals	23/05-29/05		Accumula	29/05	
(Macrosiphum euphorbiae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	1	↑	/	1	1	/	2
Gogarbank (Edinburgh)	0		0	2	0	0	4
Newcastle	1	↑	0	1	1	0	5
York	2	→	0	/	5	0	/
Preston	3	V	0	3	11	1	4
Kirton	5	^	3	2	9	5	5
Broom's Barn (nr Bury St Edmunds)	0		2	1	0	5	5
Wellesbourne	1		1	3	3	1	8
Hereford	6	^	1	2	6	2	5
Rothamsted (Harpenden)	2	^	0	1	6	2	4
Writtle	2	\	0	2	12	4	8
Silwood Park (nr Ascot)	6	↑	2	1	8	5	7
Wye	0		0	0	2	0	2
Starcross (nr Exeter)	0		0	3	2	3	13

The potato aphid was caught at 10 sites in low numbers this bulletin week, including first arrivals at Newcastle (27/5) and Hereford (23/5).

Mealy Cabbage aphid (Brevicoryne brassicae)

Cabbage aphid	Bulle	etin Week Totals	23/05-29/05		Accumula	29/05	
(Brevicoryne brassicae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	0		/	0	0	/	0
Gogarbank (Edinburgh)	0		0	0	0	0	0
Newcastle	0		0	0	0	0	0
York	2	^	0	/	2	0	/
Preston	0		0	1	0	0	3
Kirton	9	↓	0	10	45	0	14
Broom's Barn (nr Bury St Edmunds)	13	^	4	4	14	4	11
Wellesbourne	44	^	12	20	69	14	47
Hereford	35	^	2	21	40	5	31
Rothamsted (Harpenden)	1		0	3	2	0	6
Writtle	16	^	1	26	25	2	43
Silwood Park (nr Ascot)	4	^	1	6	4	1	13
Wye	3	^	0	7	15	0	10
Starcross (nr Exeter)	2	^	5	8	5	8	26

The mealy cabbage aphid was caught at 10 sites this week, including first arrivals at York (27/5) and Silwood (24/5) with hotspots at Wellesbourne (44) and Hereford (35).

Willow-carrot aphid (Cavariella aegopodii)

Willow-carrot aphid	Bulletin Week Totals		23/05-29/05		Accumulated until		29/05
(Cavariella aegopodii)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	8	↑	/	11	14	/	18
Gogarbank (Edinburgh)	2	↑	2	5	3	5	8
Newcastle	0	\	3	2	1	3	8
York	48	^	69	/	88	86	/
Preston	94	^	4	120	153	6	226
Kirton	96	→	86	99	307	176	306
Broom's Barn (nr Bury St Edmunds)	59	\	311	246	187	515	457
Wellesbourne	41	↓	88	87	93	169	138
Hereford	8		40	127	22	81	185
Rothamsted (Harpenden)	70	^	182	128	110	293	222
Writtle	193	↑	481	351	320	884	574
Silwood Park (nr Ascot)	56	↑	86	47	77	243	170
Wye	51	↑	252	141	145	407	224
Starcross (nr Exeter)	17	→	81	31	101	135	66

The willow–carrot aphid was caught at 13 sites this week, with hotspots at Writtle (193), Preston (94) and Kirton (96).

Pea aphid (Acyrthosiphon pisum)

Pea aphid	Bulletin Week Totals		23/05-29/05		Accumulated until		29/05
(Acyrthosiphon pisum)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	0		/	0	0	/	0
Gogarbank (Edinburgh)	0		0	0	0	0	1
Newcastle	0		0	0	0	0	0
York	2	→	0	/	6	0	/
Preston	1	^	0	0	2	0	2
Kirton	1	\	0	1	8	0	5
Broom's Barn (nr Bury St Edmunds)	3	→	0	3	31	0	8
Wellesbourne	10	→	0	3	44	2	11
Hereford	26	^	0	2	60	0	7
Rothamsted (Harpenden)	40	^	1	4	75	1	14
Writtle	10	→	0	5	60	2	18
Silwood Park (nr Ascot)	19	↑	1	1	39	2	13
Wye	6	↑	2	1	20	5	6
Starcross (nr Exeter)	5	↑	2	3	20	4	13

The pea aphid was caught at 11 sites this week, with a hotspot at Rothamsted (40).

Black bean aphid (Aphis fabae)

Black bean aphid	Bulle	etin Week Totals	23/05-29/05		Accumula	29/05	
(Aphis fabae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	0		/	1	0	/	1
Gogarbank (Edinburgh)	0		0	0	0	0	0
Newcastle	0		0	0	0	0	0
York	0		0	/	0	0	/
Preston	0	↓	0	0	1	0	1
Kirton	0		0	0	1	0	0
Broom's Barn (nr Bury St Edmunds)	0	↓	11	2	1	22	4
Wellesbourne	0		1	2	0	4	3
Hereford	0		1	1	0	2	3
Rothamsted (Harpenden)	0		5	1	0	12	2
Writtle	0		3	2	0	11	5
Silwood Park (nr Ascot)	0		3	2	0	9	6
Wye	0		1	2	0	8	3
Starcross (nr Exeter)	2	↓	14	2	11	18	5

Two more black bean aphids were caught this week at Starcross but none elsewhere.

Further information

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

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