AHDB Aphid News (10th June 2016 No.11)



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 – A much warmer second half to the reporting week and the subsequent warm spell will have promoted aphid migration and reproduction. Monitoring crops is strongly advised although there is some evidence that natural predators are doing a good job of containment so far.

WINTER AND SPRING CEREALS

Numbers of the cereal aphids in the suction-traps fell this week, but the accumulated numbers of the bird cherry—oat aphid are above the 10yr mean for this stage in the year. Field reports indicate that cereal aphid numbers in the crop are building, especially within BYDV patches, but remain below the threshold for control. The thresholds are 50% of tillers infested before GS61 increasing to 66% of tillers infested from GS61 to two weeks before the end of grain filling. Most damage occurs when grain aphids colonise the ears between GS 61-73. **Monitoring crops is advised as the warmer temperatures take effect.** BYDV has been reported in small patches in Spring Barley but the impact is likely to be small.

POTATOES

The peach—potato aphid (*Myzus persicae*) has been caught throughout England with highest numbers in the midlands, plus a first arrival in the Dundee ST, but none yet in Scottish YWT. Virus pressure is high in the midlands and northern England and moderate in East Anglia and the south west, principally due to the numbers of peach—potato aphids.

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

Numbers of various other non-colonising vectors of PVY and PVA are increasing (black bean aphid, mealy cabbage aphid, willow–carrot aphid, leaf-curling plum aphid and less so 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 YWT are increasing especially in the midlands. 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 YWT are increasing especially in the midlands. Single currant-lettuce aphids (*Nasonovia ribisnigri*) were caught at Dundee and York ST.

CARROTS and PARSNIPS

The willow–carrot aphid is flying throughout England, with highest numbers at Preston (105), Dundee (88) and Wellesbourne (78). Parsnip aphids were caught at Preston (*Cavariella pastinaceae* 25) and single aphids at Kirton (*Cavariella theobaldi* 1) and Starcross (*C.theobaldi* 1).

PEAS and BEANS

The pea aphid was caught at nine sites this week, with numbers decreasing at seven sites. Field reports indicate pea aphid infestations in the crop continue to increase and some crops in southern England have been sprayed. Combining peas should be sprayed when around 20% of plants are infested and vining peas when 15% are infested. Few black bean aphids have been caught in our traps so far and no field reports received. The threshold for black bean aphid in field and broad beans is 10% colonisation.

SUCTION-TRAPPING RESULTS



The information below relates to suction-trap samples collected during **Bulletin** Week 11: 30/5 – 5/6.

- A week of two distinct halves with not much flying at the beginning of the week, but much more going on over the weekend.
- Numbers of the cereal aphids in the suction-traps fell this week.
- The first peach—potato aphid was caught at Dundee, and there was a big hotspot at Wellesbourne (167).
- The willow–carrot aphid was caught at 13 sites this week, with hotspots at Preston (105), Dundee (88) and Wellesbourne (78).
- The pea aphid was caught at nine sites this week, with numbers decreasing at seven sites.
- The mealy cabbage aphid was caught at nine sites this week, with hotspots at Wellesbourne (112) and Hereford (125).
- Low numbers of the black bean aphid were caught at four sites spanning from Dundee down to Starcross, which remains the hotspot for this species.
- Single currant-lettuce aphids (*Nasonovia ribisnigri*) were caught at Dundee and York suction-traps this week.
- Parsnip aphids were caught at Preston (Cavariella pastinaceae 25) and single aphids at Kirton (Cavariella theobaldi 1) and Starcross (C.theobaldi 1).

Rose-grain aphid (Metopolophium dirhodum)

Rose-grain aphid	Bulle	etin Week Totals	30/0	05-05/06	Accumulated until		05/06
(Metopolophium dirhodum)	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)	1		0	3	2	0	5
Newcastle	*1	^	0	1	4	0	4
York	*2	\	0	/	9	1	/
Preston	*15	↑	2	13	25	3	21
Kirton	1		6	5	13	11	13
Broom's Barn (nr Bury St Edmunds)	1	\	2	26	24	9	34
Wellesbourne	9	\	8	5	36	9	12
Hereford	2	\	2	10	19	2	17
Rothamsted (Harpenden)	5	\	3	6	32	6	9
Writtle	5	→	3	13	42	6	19
Silwood Park (nr Ascot)	*0	→	3	9	16	5	15
Wye	*0		1	2	4	3	4
Starcross (nr Exeter)	*2	↑	30	37	44	52	59

The rose–grain aphid was caught at 12 sites in low numbers this bulletin week. There were decreases at seven sites and the highest numbers were at Preston.

^{**&#}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	Bulle	etin Week Totals	30/05-05/06		Accumula	05/06	
(Rhopalosiphum padi)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	10	↑	/	4	21	/	9
Gogarbank (Edinburgh)	2		0	5	7	0	11
Newcastle	*0		0	7	5	1	15
York	*4	→	0	/	26	2	/
Preston	*15	^	3	4	32	3	17
Kirton	12	↓	2	14	135	7	51
Broom's Barn (nr Bury St Edmunds)	4	\	3	73	216	9	104
Wellesbourne	41	\	0	15	164	1	48
Hereford	32	→	2	8	131	6	24
Rothamsted (Harpenden)	25	→	1	13	161	7	34
Writtle	8	→	7	22	350	14	64
Silwood Park (nr Ascot)	*2	\	4	36	120	6	77
Wye	*2	→	4	28	154	15	100
Starcross (nr Exeter)	*29	→	9	25	434	23	110

The bird cherry—oat aphid was caught at 13 sites this bulletin week. Numbers were down on last week at ten sites. Numbers are above the accumulated 10-yr means across much of England.

Grain aphid (Sitobion avenae)

Grain aphid	Bulle	etin Week Totals	30/05-05/06		Accumula	05/06	
(Sitobion avenae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	4	↑	/	2	9	/	5
Gogarbank (Edinburgh)	4	^	0	3	4	0	4
Newcastle	*0		1	2	5	1	8
York	*1	→	4	/	8	8	/
Preston	*7	^	1	8	8	1	13
Kirton	0	\	1	1	9	1	7
Broom's Barn (nr Bury St Edmunds)	4	↑	1	3	19	1	7
Wellesbourne	4	↓	0	7	32	0	28
Hereford	2		0	4	12	2	10
Rothamsted (Harpenden)	1	↑	0	2	15	0	5
Writtle	0		4	2	18	6	6
Silwood Park (nr Ascot)	*0	\	1	5	15	2	12
Wye	*0	\	0	3	39	0	8
Starcross (nr Exeter)	*0	→	6	6	28	9	8

The grain aphid was caught in low numbers at eight sites this week.

Peach-potato aphid (Myzus persicae)

Peach-potato aphid	Bulle	etin Week Totals	30/05-05/06		Accumulated until		05/06
(Myzus persicae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	1	↑	/	1	1	/	1
Gogarbank (Edinburgh)	0		1	1	0	1	2
Newcastle	*0		0	1	0	1	3
York	*7	↑	2	/	20	2	/
Preston	*5	^	0	4	7	0	6
Kirton	2	V	24	8	28	25	21
Broom's Barn (nr Bury St Edmunds)	9	V	137	48	67	152	150
Wellesbourne	167	↑	39	41	213	44	106
Hereford	51	↑	7	8	76	11	23
Rothamsted (Harpenden)	50	^	10	33	118	15	74
Writtle	53	\	53	58	212	72	142
Silwood Park (nr Ascot)	*2	↓	4	5	14	9	18
Wye	*2	V	21	15	23	41	70
Starcross (nr Exeter)	*5	\	4	9	42	12	39

The peach—potato aphid was caught at 12 sites this week, including a first arrival at Dundee (1/6) and with a hotspot at Wellesbourne (167).

Potato aphid (Macrosiphum euphorbiae)

Potato aphid	Bulle	etin Week Totals	30/05-05/06		Accumula	05/06	
(Macrosiphum euphorbiae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	4	↑	/	1	5	/	3
Gogarbank (Edinburgh)	4	^	1	4	4	1	7
Newcastle	*0	→	0	1	1	0	6
York	*0	→	0	/	5	0	/
Preston	*1	\	0	4	12	1	8
Kirton	2	\	0	1	11	5	6
Broom's Barn (nr Bury St Edmunds)	0		2	2	0	7	6
Wellesbourne	5	^	2	3	8	3	11
Hereford	4	→	3	5	10	5	9
Rothamsted (Harpenden)	0	→	0	2	6	2	6
Writtle	0	→	1	4	12	5	12
Silwood Park (nr Ascot)	*0	→	3	3	8	8	10
Wye	*0		2	1	2	2	4
Starcross (nr Exeter)	*1	^	5	5	3	8	18

The potato aphid was caught at seven sites in low numbers this bulletin week.

Mealy Cabbage aphid (Brevicoryne brassicae)

Cabbage aphid	Bulletin Week Totals		30/05-05/06		Accumulated until		05/06
(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)	1	^	0	0	1	0	0
Newcastle	*0		0	1	0	0	1
York	*2	^	0	/	4	0	/
Preston	*0		1	4	0	1	7
Kirton	1	\	28	5	46	28	19
Broom's Barn (nr Bury St Edmunds)	10	→	3	3	24	7	14
Wellesbourne	112	^	53	28	181	67	74
Hereford	125	^	6	7	165	11	38
Rothamsted (Harpenden)	1		5	3	3	5	9
Writtle	2	\	17	25	27	19	68
Silwood Park (nr Ascot)	*0	\	1	1	4	2	14
Wye	*0	\	2	4	15	2	13
Starcross (nr Exeter)	*4	↑	3	9	9	11	35

The mealy cabbage aphid was caught at nine sites this week, with hotspots at Wellesbourne (112) and Hereford (125).

Willow-carrot aphid (Cavariella aegopodii)

Willow-carrot aphid	Bulle	etin Week Totals	30/0	05-05/06	Accumulated until		05/06
(Cavariella aegopodii)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	88	↑	/	27	102	/	45
Gogarbank (Edinburgh)	26	^	20	20	29	25	27
Newcastle	*0		12	23	1	15	31
York	*41	\	106	/	129	192	/
Preston	*105	^	142	147	258	148	373
Kirton	43	\	264	105	350	440	411
Broom's Barn (nr Bury St Edmunds)	30	\	468	137	217	983	595
Wellesbourne	78	↑	196	152	171	365	289
Hereford	36	↑	41	115	58	122	300
Rothamsted (Harpenden)	12	→	235	89	122	528	312
Writtle	45	→	630	240	365	1514	814
Silwood Park (nr Ascot)	*2	→	58	41	79	301	211
Wye	*13	→	237	112	158	644	336
Starcross (nr Exeter)	*20	↑	61	29	121	196	95

The willow–carrot aphid was caught at 13 sites this week, with hotspots at Preston (105), Dundee (88) and Wellesbourne (78).

Pea aphid (Acyrthosiphon pisum)

Pea aphid	Bulle	etin Week Totals	30/05-05/06		Accumulated until		05/06
(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	/	1
Gogarbank (Edinburgh)	0		0	1	0	0	2
Newcastle	*0		0	0	0	0	1
York	*1	\	0	/	7	0	/
Preston	*5	^	0	1	7	0	3
Kirton	1		0	1	9	0	7
Broom's Barn (nr Bury St Edmunds)	0	\	2	3	31	2	20
Wellesbourne	14	^	2	4	58	4	18
Hereford	12	\	1	4	72	1	13
Rothamsted (Harpenden)	6	→	2	6	81	3	24
Writtle	20	^	2	10	80	4	32
Silwood Park (nr Ascot)	*0	→	0	7	39	2	26
Wye	*1	→	0	2	21	5	11
Starcross (nr Exeter)	*4	→	5	9	24	9	22

The pea aphid was caught at nine sites this week, with numbers decreasing at seven sites.

Black bean aphid (Aphis fabae)

Black bean aphid	Bulle	etin Week Totals	30/0	05-05/06	Accumula	Accumulated until	
(Aphis fabae)	2016	Compared to last Bulletin week	2015	10-year average 2006-15	2016	2015	10-year average 2006-15
Dundee	2	↑	/	1	2	/	2
Gogarbank (Edinburgh)	0		0	1	0	0	1
Newcastle	*0		0	0	0	0	0
York	*0		0	/	0	0	/
Preston	*0		1	1	1	1	1
Kirton	1	^	2	0	2	2	1
Broom's Barn (nr Bury St Edmunds)	0		9	2	1	31	6
Wellesbourne	0		4	2	0	8	5
Hereford	0		2	1	0	4	3
Rothamsted (Harpenden)	3	^	5	3	3	17	5
Writtle	0		1	2	0	12	7
Silwood Park (nr Ascot)	*0		2	3	0	11	9
Wye	*0		2	1	0	10	4
Starcross (nr Exeter)	*5	↑	5	7	16	23	12

The black bean aphid was caught at four sites spanning from Dundee down to Starcross, which remains the hotspot for this species.

Further information

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

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