

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

Aphid numbers are steadily rising across much of the country as the warm weather continues. The trap catches continue to be dominated by the leaf-curling plum aphid (*Brachycaudus helichrysi*). This week's big mover is the peach-potato aphid (*Myzus persicae*), with particularly high numbers in some samples, possibly moving away from maturing oilseed rape crops and tests show they are carrying high levels of Turnip yellows virus. Some field reports suggest that natural enemy populations (predators and parasites) are also now starting to build.

CEREALS

Cereal aphids are flying throughout the country this week, but numbers remain low for the time of year. There have been no reports of significant numbers of cereal aphids in crops. The threshold for control is 50% of tillers infested before GS61 increasing to 66% of tillers infested from GS61 to two weeks before the end of grain filling.

POTATOES

Virus pressure was high throughout England. Large numbers of the peach-potato aphid (*Myzus persicae*) and the leaf-curling plum aphid (*Brachycaudus helichrysi*) were generally responsible for most of the virus pressure. Numbers of the willow-carrot aphid (*Cavariella aegopodii*) also remain high throughout the country, and have revived a little in response to the warm weather.

Numbers of the peach-potato aphid (*Myzus persicae*) have increased substantially throughout England, and have been caught in YWT in Scotland, but not the Scottish suction-traps this week. The potato aphid (*Macrosiphum euphorbiae*) has been caught in low numbers throughout the country this week. Numbers of the black bean aphid (*Aphis fabae*) are high. This species is a good vector of PVA, so PVA-susceptible varieties may be at risk. Cereal aphids are now flying throughout the country but in very low numbers at this stage. Further regional information on potato virus vectors can be accessed here: www.potato.org.uk/online-toolbox/aphid-monitoring.

OILSEED RAPE

Numbers of mealy cabbage aphids (*Brevicoryne brassicae*) have increased this week, particularly in central England. Continue to monitor backward crops of spring rape where the threshold for control is >4% plants infested before petal fall. The big numbers of peach-potato aphid (*Myzus persicae*) in England are thought to be leaving maturing oilseed rape.

FIELD BRASSICAS

Numbers of the peach-potato aphid (*Myzus persicae*) and the mealy cabbage aphid (*Brevicoryne brassicae*) have increased this week, particularly in central and eastern England.

CARROTS

The willow-carrot aphid (*Cavariella aegopodii*) is still flying throughout the country. Numbers have increased slightly in response to the warm weather, extending the migration beyond normal for the time of year.

PEAS and BEANS

The black bean aphid (*Aphis fabae*) has been reported across the country at medium to high levels, somewhat higher than in recent years. The threshold for spraying is 10% of plants infested to prevent yield loss. The pea aphid (*Acyrtosiphon pisum*) is present in peas and may also affect beans. Combining peas should be sprayed when around 20% of plants are infested and vining peas when 15% are infested.

SUCTION-TRAPPING RESULTS



Suction-trap sites

The information below relates to suction-trap samples collected during bulletin week 11: 15/6 – 21/6. Aphid numbers in the suction-traps this bulletin week have increased as the warm weather continues. However, the forecast heatwave next week may be too hot for some!

- Rose-grain aphid numbers are slowly rising and the hotspot at Starcross has continued, but elsewhere cereal aphid numbers are low.
- Numbers of the peach-potato aphid (*Myzus persicae*) have increased substantially through much of England, with highest numbers in central and eastern England. Field reports from eastern England of peach-potato aphids beginning to appear in many potato crop canopies suggest crops should be closely monitored.
- The potato aphid (*Macrosiphum euphorbiae*) was caught at eleven sites this week in low numbers, with small hotspots at Kirton (28), Preston (11) and Wellesbourne (11).
- The willow-carrot aphid (*Cavariella aegopodii*) was caught in all our traps this week, and numbers have revived a little in response to the good weather. Numbers were highest at Kirton (416) and Broom’s Barn (403).
- The mealy cabbage aphid (*Brevicoryne brassicae*) was caught at ten sites this week, with a big hotspot at Wellesbourne (552), and smaller hotspots at Hereford (104) and Writtle (118).
- The pea aphid (*Acyrtosiphon pisum*) was caught at seven sites this week, with hotspots at Writtle (22) and Wye (11).
- The black bean aphid (*Aphis fabae*) has been caught at eight sites this week, with a hotspot at Writtle (80).

The tables below show current and accumulated totals with comparisons to previous years. ‘/’ indicates that identifications have not been completed and ‘*’ indicates where totals have been corrected proportionally to seven days, because fewer days’ samples having been identified.

Rose-grain aphid (*Metopolophium dirhodum*)

Rose-grain aphid (<i>Metopolophium dirhodum</i>)	Bulletin Week Totals 15/06-21/06				Accumulated until 21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	0*		41	5	2	/	8
Gogarbank (Edinburgh)	0	↓	29	15	3	37	26
Newcastle	0*		/	9	0	/	18
York	8*	↑	N/A	N/A	9	N/A	N/A
Preston	32*	↑	1	56	38	/	108
Kirton	13*	↑	2	94	26	39	136
Broom’s Barn (nr Bury St Edmunds)	20*	↑	0	76	37	86	156
Wellesbourne	0*	↓	51	40	11	/	80
Hereford	35*	↑	11	31	46	50	73
Rothamsted (Harpenden)	20*	↑	28	31	28	89	67
Writtle	14*	↑	44	52	30	150	105
Silwood Park (nr Ascot)	9*	↓	/	12	28	/	55
Wye	11*	↑	/	20	14	/	27
Starcross (nr Exeter)	106*	↑	256	63	226	546	192

The rose-grain aphid was caught at ten sites this week, with a continuing hotspot at Starcross (106), and numbers increasing at nine sites. Accumulated numbers are slightly below the ten year average everywhere except Starcross.

Bird cherry–oat aphid (*Rhopalosiphum padi*)

Bird cherry–oat aphid (<i>Rhopalosiphum padi</i>)	Bulletin Week Totals				Accumulated until		
	15/06-21/06				21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	2*	↑	7	37	3	/	56
Gogarbank (Edinburgh)	0	↓	5	24	4	28	49
Newcastle	0*		/	52	1	/	87
York	0*	↓	N/A	N/A	5	N/A	N/A
Preston	7*	↑	3	15	10	/	42
Kirton	11*	↑	4	97	22	52	297
Broom's Barn (nr Bury St Edmunds)	3*		5	54	12	56	217
Wellesbourne	6*	↑	12	20	11	/	108
Hereford	8*	↑	8	14	9	27	60
Rothamsted (Harpenden)	0*	↓	18	19	12	46	77
Writtle	0*	↓	19	20	24	97	114
Silwood Park (nr Ascot)	0*	↓	/	10	15	/	144
Wye	0*		/	15	15	/	149
Starcross (nr Exeter)	4*	↓	42	25	37	130	185

The bird cherry–oat aphid was caught at seven sites in low numbers this week. The accumulated numbers are below average.

Grain aphid (*Sitobion avenae*)

Grain aphid (<i>Sitobion avenae</i>)	Bulletin Week Totals				Accumulated until		
	15/06-21/06				21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	0*		6	8	2	/	17
Gogarbank (Edinburgh)	0	↓	12	6	1	28	16
Newcastle	0*		/	5	0	/	16
York	11*	↑	N/A	N/A	26	N/A	N/A
Preston	4*	↑	8	13	6	/	38
Kirton	0*		0	8	1	12	24
Broom's Barn (nr Bury St Edmunds)	0*		4	13	4	35	26
Wellesbourne	0*		23	11	0	/	55
Hereford	4*	↑	4	11	6	15	34
Rothamsted (Harpenden)	0*		6	7	6	26	19
Writtle	8*	↑	32	16	15	56	29
Silwood Park (nr Ascot)	0*		/	19	4	/	48
Wye	4*	↑	/	10	4	/	21
Starcross (nr Exeter)	8*	↑	28	46	25	56	85

The grain aphid was caught at six sites in low numbers this week. The accumulated numbers are below average.

Peach–potato aphid (*Myzus persicae*)

Peach–potato aphid (<i>Myzus persicae</i>)	Bulletin Week Totals 15/06-21/06				Accumulated until 21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	0*		1	1	0	/	2
Gogarbank (Edinburgh)	0		2	2	1	3	4
Newcastle	0*		/	3	1	/	9
York	29*	↑	N/A	N/A	31	N/A	N/A
Preston	0*	↓	5	5	22	/	20
Kirton	288*	↑	12	32	311	83	71
Broom's Barn (nr Bury St Edmunds)	658*	↑	7	79	928	1280	300
Wellesbourne	549*	↑	240	45	704	/	251
Hereford	147*	↑	17	14	235	77	56
Rothamsted (Harpenden)	244*	↑	84	29	365	441	125
Writtle	395*	↑	253	96	719	1034	301
Silwood Park (nr Ascot)	42*	↑	/	3	95	/	32
Wye	189*	↑	/	29	270	/	120
Starcross (nr Exeter)	25*	↑	28	11	58	150	60

The peach–potato aphid was caught at ten sites this week, with hotspots at Broom's Barn (658), Wellesbourne (549) and Writtle (395), and numbers through much of England are above the 10 yr. averages.

Potato aphid (*Macrosiphum euphorbiae*)

Potato aphid (<i>Macrosiphum euphorbiae</i>)	Bulletin Week Totals 15/06-21/06				Accumulated until 21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	0*		1	1	0	/	6
Gogarbank (Edinburgh)	0		3	4	1	22	20
Newcastle	1*		/	3	3	/	11
York	3*	↑	N/A	N/A	4	N/A	N/A
Preston	11*	↑	0	4	12	/	17
Kirton	28*	↑	0	4	33	23	13
Broom's Barn (nr Bury St Edmunds)	6*	↑	0	4	14	28	12
Wellesbourne	11*	↑	2	3	19	/	21
Hereford	3*	↓	3	6	28	26	22
Rothamsted (Harpenden)	6*	↑	1	4	8	12	11
Writtle	8*	↓	3	8	26	31	26
Silwood Park (nr Ascot)	5*	↑	/	1	15	/	14
Wye	0*	↓	/	4	6	/	11
Starcross (nr Exeter)	4*		3	4	15	11	30

The potato aphid was caught at eleven sites this week in low numbers, with small hotspots at Kirton (28), Preston (11) and Wellesbourne (11).

Mealy Cabbage aphid (*Brevicoryne brassicae*)

Cabbage aphid (<i>Brevicoryne brassicae</i>)	Bulletin Week Totals 15/06-21/06				Accumulated until 21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	0*		0	0	0	/	0
Gogarbank (Edinburgh)	0		0	1	0	0	2
Newcastle	0*		/	2	0	/	7
York	31*	↑	N/A	N/A	31	N/A	N/A
Preston	0*		0	3	0	/	18
Kirton	35*	↑	2	28	71	7	50
Broom's Barn (nr Bury St Edmunds)	14*	↑	0	57	26	31	84
Wellesbourne	552*	↑	14	74	783	/	177
Hereford	104*	↑	0	22	158	4	80
Rothamsted (Harpenden)	3*	↓	5	47	11	10	59
Writtle	118*	↑	12	168	150	50	269
Silwood Park (nr Ascot)	5*	↑	/	4	8	/	26
Wye	70*	↑	/	38	74	/	56
Starcross (nr Exeter)	32*	↑	0	9	48	6	93

The mealy cabbage aphid was caught at ten sites this week, with a big hotspot at Wellesbourne (552), and smaller hotspots at Hereford (104) and Writtle (118). Accumulated numbers are below the 10-year means everywhere except Wellesbourne.

Willow-carrot aphid (*Cavariella aegopodii*)

Willow-carrot aphid (<i>Cavariella aegopodii</i>)	Bulletin Week Totals 15/06-21/06				Accumulated until 21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	14*	↓	2	4	52	/	64
Gogarbank (Edinburgh)	29	↓	1	13	179	96	65
Newcastle	39*	↑	/	27	73	/	80
York	41*	↓	N/A	N/A	289	N/A	N/A
Preston	151*	↑	1	42	336	/	482
Kirton	416*	↑	0	52	903	869	520
Broom's Barn (nr Bury St Edmunds)	403*	↑	0	56	1539	365	669
Wellesbourne	230*	↑	29	33	781	/	395
Hereford	60*	↓	4	25	231	59	350
Rothamsted (Harpenden)	255*	↓	14	31	1158	93	329
Writtle	202*	↑	10	30	2122	137	772
Silwood Park (nr Ascot)	70*	↓	/	6	595	/	229
Wye	109*	↑	/	20	934	/	319
Starcross (nr Exeter)	69*	↑	2	17	311	33	123

The willow-carrot aphid was caught at all fourteen sites this week, with numbers highest at Kirton (416) and Broom's Barn (403).

Pea aphid (*Acyrtosiphon pisum*)

Pea aphid (<i>Acyrtosiphon pisum</i>)	Bulletin Week Totals 15/06-21/06				Accumulated until 21/06		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	0*		0	0	0	/	2
Gogarbank (Edinburgh)	0		3	1	0	15	5
Newcastle	0*		/	2	0	/	5
York	0*		N/A	N/A	0	N/A	N/A
Preston	0*		0	2	0	/	10
Kirton	6*	↑	0	23	6	19	85
Broom's Barn (nr Bury St Edmunds)	6*	↑	2	19	8	83	96
Wellesbourne	0*	↓	18	16	8	/	70
Hereford	3*		4	6	7	11	37
Rothamsted (Harpenden)	8*	↑	24	12	14	83	93
Writtle	22*	↑	29	21	31	117	140
Silwood Park (nr Ascot)	2*	↓	/	5	16	/	59
Wye	11*	↓	/	30	36	/	53
Starcross (nr Exeter)	0*	↓	23	23	24	58	63

The pea aphid was caught at seven sites this week, with hotspots at Writtle (22) and Wye (11).

Further information

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

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