

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

Current numbers of the peach–potato aphid (*Myzus persicae*) and the black bean aphid (*Aphis fabae*) are high for the time of year. Despite this total aphid flight activity has decreased during the last week due to a combination of adverse weather and rapidly increasing pressure from aphid predators and parasitoids.

CEREALS

Numbers of cereal aphids flying this week have increased, most noticeably the grain aphid (*Sitobion avenae*), 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 66% of tillers infested from GS61 to two weeks before the end of grain filling.

POTATOES

Virus pressure was high in England, and high or moderate in Scotland, with the peach–potato aphid (*Myzus persicae*) generally responsible for most of the virus pressure. Peach–potato aphid activity now increasing in Scotland with a flush of records from both suction-traps and YWT 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*) flying this week remain very high. This species is a good vector of PVA, so PVA-susceptible varieties may be at risk. Cereal aphids are increasing, but remain at low levels for the time of year. 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*) and peach–potato aphids (*Myzus persicae*) are high in England this week, but numbers in the crop are generally low. Continue to monitor backward crops of spring rape where the threshold for control is >4% plants infested before petal fall.

FIELD BRASSICAS and LEAFY VEGETABLES

Numbers of the peach–potato aphid (*Myzus persicae*) and the mealy cabbage aphid (*Brevicoryne brassicae*) are high in England this week. The currant-lettuce aphid (*Nasonovia ribisnigri*) was caught in the suction-trap at Silwood.

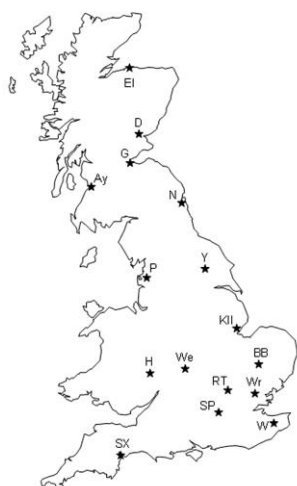
CARROTS

Numbers of the willow–carrot aphid (*Cavariella aegopodii*) have decreased this week.

PEAS and BEANS

The black bean aphid (*Aphis fabae*) has been reported across the country at high to very high levels, higher than for many years. The threshold for spraying is 10% of plants infested to prevent yield loss, however aphids seem to be re-colonising very quickly following applications. Pyrethroids applied to control bruchid beetle are having no effect at all on aphid numbers. The pea aphid (*Acyrtosiphon pisum*) is common in peas, particularly in eastern England, and it 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



The information below relates to suction-trap samples collected during bulletin week 13: 29/6 – 05/7.

- Cereal aphid numbers have started to increase, particularly the grain aphid, but numbers are low for the time of year.
- Numbers of the peach–potato aphid (*Myzus persicae*) are high through much of England, with highest numbers at Kirton and Starcross, plus a first flush of peach–potato aphids in Scottish suction-traps this week.
- The potato aphid (*Macrosiphum euphorbiae*) was caught at ten sites this week, with small hotspots at Kirton (34) and Starcross (32).
- The willow–carrot aphid (*Cavariella aegopodii*) was caught in eleven traps this week, but numbers decreased in 8/11 sites. This week numbers were highest at Kirton (280) and Wellesbourne (201).
- The mealy cabbage aphid (*Brevicoryne brassicae*) was caught at twelve sites this week, with a big hotspot at Wellesbourne (1843).
- The pea aphid (*Acyrtosiphon pisum*) was caught at thirteen sites this week, with a hotspot at Starcross (202), and with numbers increasing at 10/13 sites. Field reports of pea aphid are becoming more common especially in eastern England.
- Numbers of the black bean aphid (*Aphis fabae*) increased across England, with numbers highest in central and eastern England. Field reports indicate that despite multiple spray applications, aphids are very quickly re-colonising crops.

Suction-trap sites

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 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		85	155	2	/	189
Gogarbank (Edinburgh)	17	↑	27	171	20	82	229
Newcastle	4*	↓	9	27	13	/	65
York	11*	↓	N/A	N/A	37	N/A	N/A
Preston	0*	↓	3	42	63	/	316
Kirton	78*	↑	4	450	147	49	730
Broom’s Barn (nr Bury St Edmunds)	98*	↑	13	402	219	125	719
Wellesbourne	154*	↑	49	142	239	/	305
Hereford	67*	↓	7	134	224	72	305
Rothamsted (Harpenden)	50*	↑	21	184	117	131	327
Writtle	21*	↓	11	196	90	212	405
Silwood Park (nr Ascot)	17*	↓	/	36	73	/	124
Wye	4*	↓	/	67	44	/	124
Starcross (nr Exeter)	59*	↓	63	33	372	857	289

The rose–grain aphid was caught at twelve sites this week, with numbers decreasing at eight sites. There was a hotspot at Wellesbourne (154). Accumulated numbers are 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 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		72	141	8	/	255
Gogarbank (Edinburgh)	1	↑	66	378	5	104	471
Newcastle	1*		13	47	4	/	203
York	6*	↑	N/A	N/A	11	N/A	N/A
Preston	0*		4	21	10	/	87
Kirton	29*	↑	14	207	65	70	587
Broom's Barn (nr Bury St Edmunds)	28*	↑	9	278	47	80	649
Wellesbourne	0*		15	20	11	/	142
Hereford	14*	↑	19	50	26	52	155
Rothamsted (Harpenden)	8*	↑	12	109	22	63	264
Writtle	21*	↓	17	148	70	132	376
Silwood Park (nr Ascot)	3*	↑	/	37	18	/	191
Wye	24*	↑	/	49	39	/	206
Starcross (nr Exeter)	28*	↑	19	36	68	214	274

The bird cherry–oat aphid was caught at eleven sites in low numbers, but with slight increases at nine sites. The accumulated numbers are below average.

Grain aphid (*Sitobion avenae*)

Grain aphid (<i>Sitobion avenae</i>)	Bulletin Week Totals 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		37	17	2	/	45
Gogarbank (Edinburgh)	6	↑	37	76	7	67	113
Newcastle	3*	↑	8	18	4	/	43
York	92*	↑	N/A	N/A	135	N/A	N/A
Preston	25*	↑	29	104	34	/	166
Kirton	31*	↑	8	319	32	23	390
Broom's Barn (nr Bury St Edmunds)	27*	↑	33	366	37	99	503
Wellesbourne	37*	↑	72	183	37	/	287
Hereford	63*	↑	43	152	86	76	243
Rothamsted (Harpenden)	25*	↑	83	382	36	137	464
Writtle	18*	↑	71	340	44	295	496
Silwood Park (nr Ascot)	41*	↑	/	72	50	/	148
Wye	14*	↑	/	59	23	/	102
Starcross (nr Exeter)	109*	↑	60	83	151	197	282

Numbers of grain aphid increased at all thirteen sites this week, with hotspots at York (92) and Starcross (109). The accumulated numbers are below average for the time of year.

Peach–potato aphid (*Myzus persicae*)

Peach–potato aphid (<i>Myzus persicae</i>)	Bulletin Week Totals 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		1	2	0	/	5
Gogarbank (Edinburgh)	25	↑	0	3	26	4	8
Newcastle	1*	↓	0	2	12	/	13
York	249*	↑	N/A	N/A	360	N/A	N/A
Preston	106*	↑	4	71	132	/	102
Kirton	678*	↓	9	97	2211	120	234
Broom's Barn (nr Bury St Edmunds)	256*	↓	15	181	2101	1345	580
Wellesbourne	121*	↓	79	47	1132	/	350
Hereford	182*	↓	14	21	672	100	98
Rothamsted (Harpenden)	132*	↓	20	100	974	505	297
Writtle	105*	↓	11	176	1627	1144	601
Silwood Park (nr Ascot)	4*	↓	/	7	117	/	43
Wye	55*	↓	/	10	551	/	164
Starcross (nr Exeter)	795*	↑	3	4	870	163	78

The peach–potato aphid was caught at thirteen sites this week, with hotspots at Kirton (678) and Starcross (795). Numbers through much of the Country are above both the current and accumulated the 10 yr averages, but have started to fall in much of England this week.

Potato aphid (*Macrosiphum euphorbiae*)

Potato aphid (<i>Macrosiphum euphorbiae</i>)	Bulletin Week Totals 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		3	2	2	/	9
Gogarbank (Edinburgh)	6	↑	2	15	10	24	38
Newcastle	0*	↓	0	2	11	/	14
York	6*	↓	N/A	N/A	17	N/A	N/A
Preston	8*	↓	0	5	40	/	26
Kirton	34*	↑	0	24	71	23	50
Broom's Barn (nr Bury St Edmunds)	1*	↑	1	16	15	29	39
Wellesbourne	0*	↓	3	4	45	/	32
Hereford	18*	↓	2	15	79	31	49
Rothamsted (Harpenden)	3*		0	3	13	12	19
Writtle	14*	↑	1	6	48	35	38
Silwood Park (nr Ascot)	4*	↓	/	1	28	/	16
Wye	0*		/	2	6	/	15
Starcross (nr Exeter)	32*	↑	5	5	47	19	38

The potato aphid was caught at ten sites this week, with small hotspots at Kirton (34) and Starcross (32).

Mealy Cabbage aphid (*Brevicoryne brassicae*)

Cabbage aphid (<i>Brevicoryne brassicae</i>)	Bulletin Week Totals 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		0	0	0	/	1
Gogarbank (Edinburgh)	0		0	1	0	0	3
Newcastle	4*	↑	0	0	4	/	7
York	45*	↑	N/A	N/A	81	N/A	N/A
Preston	3*	↑	2	3	3	/	22
Kirton	223*	↓	5	11	677	13	75
Broom's Barn (Bury St Edmunds)	50*	↑	4	67	126	38	199
Wellesbourne	1843*	↑	21	70	3572	/	327
Hereford	284*	↑	1	17	671	6	126
Rothamsted (Harpenden)	48*	↑	3	16	96	15	191
Writtle	298*	↑	17	126	512	113	531
Silwood Park (nr Ascot)	7*	↓	/	2	32	/	48
Wye	32*	↓	/	5	145	/	66
Starcross (nr Exeter)	14*	↓	19	8	115	44	136

The mealy cabbage aphid was caught at twelve sites this week, with a big hotspot at Wellesbourne (1843), and smaller hotspots at Kirton (223), Hereford (284) and Writtle (298). Accumulated numbers are above the 10-year averages at Wellesbourne, Kirton, Hereford and Wye.

Willow-carrot aphid (*Cavariella aegopodii*)

Willow-carrot aphid (<i>Cavariella aegopodii</i>)	Bulletin Week Totals 29/06-05/07				Accumulated until 05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		1	2	69	/	67
Gogarbank (Edinburgh)	25	↑	0	10	228	97	82
Newcastle	14*		14	8	101	/	101
York	134*	↑	N/A	N/A	451	N/A	N/A
Preston	109*	↑	4	24	526	/	538
Kirton	280*	↓	0	33	1951	874	600
Broom's Barn (nr Bury St Edmunds)	66*	↓	3	20	1955	375	722
Wellesbourne	201*	↑	4	7	1162	/	428
Hereford	56*	↓	0	10	363	59	373
Rothamsted (Harpenden)	34*	↓	2	10	1412	102	367
Writtle	49*	↓	1	12	2395	148	822
Silwood Park (nr Ascot)	0*	↓	/	3	666	/	237
Wye	15*	↓	/	10	1069	/	356
Starcross (nr Exeter)	0*	↓	0	9	339	37	143

The willow-carrot aphid was caught at eleven sites this week, with numbers highest at Kirton (280) and Wellesbourne (201). Numbers decreased at eight sites in central and southern England.

Pea aphid (*Acyrtosiphon pisum*)

Pea aphid (<i>Acyrtosiphon pisum</i>)	Bulletin Week Totals				Accumulated until		
	29/06-05/07				05/07		
	2015	Compared to last Bulletin week	2014	10-year average 2005-14	2015	2014	10-year average 2005-14
Dundee	/		3	4	0	/	19
Gogarbank (Edinburgh)	8	↑	0	11	9	16	24
Newcastle	1*	↑	0	3	1	/	10
York	6*	↓	N/A	N/A	17	N/A	N/A
Preston	11*	↑	1	24	11	/	37
Kirton	66*	↑	10	139	106	31	404
Broom's Barn (nr Bury St Edmunds)	18*	↑	15	102	32	109	395
Wellesbourne	42*	↑	30	129	64	/	250
Hereford	21*	↑	9	26	39	23	79
Rothamsted (Harpenden)	39*	↑	23	62	61	120	266
Writtle	81*	↑	14	114	111	180	493
Silwood Park (nr Ascot)	4*		/	10	24	/	97
Wye	7*	↓	/	33	51	/	169
Starcross (nr Exeter)	202*	↑	6	9	231	76	96

The pea aphid was caught at thirteen sites this week, with a hotspot at Starcross (202), and with numbers increasing at ten sites.

Further information

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

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