

7th July 2017

This news sheet summarises up-to-date results from the Rothamsted/SASA suction-trap (**ST**) network and the FERA yellow water-pan trap (**YWT**) network.

GENERAL – Heavy rain across England caused a mid-week dip otherwise numbers for most aphid species have held up, monitoring crops is still advised.

CEREALS

- Numbers of two of the three cereal aphids in the **ST** have decreased this week with the grain aphid (*Sitobion avenae*) increasing at most sites.
- No field reports have been received of increasing aphid numbers in spring barley or thresholds being reached. The threshold for control against direct feeding damage is 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.**

POTATOES

- **Virus pressure remains particularly high in much of England but medium in East Anglia, Angus and Perthshire as well as low in the rest of Scotland.**
- The peach–potato aphid (*Myzus persicae*) decreased in numbers at all **ST** sites with highest counts at Wellesbourne (97) and Newcastle (64), as well as higher than average numbers at some **YWT** sites in northern, central and southwestern regions.
- Numbers of one of the cereal aphids: the grain aphid (*Sitobion avenae*), a non-colonising vector of PVY and PVA, increased this week.
- Black bean aphids have been caught across the country in both **ST** and **YWT** this week, particularly high numbers were found in the south west. This species transmits PVA very efficiently and growers of PVA susceptible varieties (Desiree, King Edward, Maris Peer, Marfona etc.) may want to factor this into decision making. Further regional information on potato virus vectors and the FERA yellow water-pan trap (**YWT**) network can be accessed here: www.potato.org.uk/online-toolbox/aphid-monitoring.

OILSEED RAPE, FIELD BRASSICAS and LEAFY VEGETABLES

- The peach–potato aphid (*Myzus persicae*) numbers decreased at all **ST** sites with the highest numbers at Wellesbourne (97) and Newcastle (64). Tests show that up to 68% of these migrants are carrying Turnip yellows virus.
- The mealy cabbage aphid was caught at twelve **ST** sites this week, increasing at six sites with the highest number at Wellesbourne (12), and higher than average numbers in **YWT** from the North of Scotland, Midlands and South West. Field reports indicate they are mostly in low numbers in OSR crops.
- No currant-lettuce aphids (*Nasonovia ribisnigri*) were caught in **ST** this week.

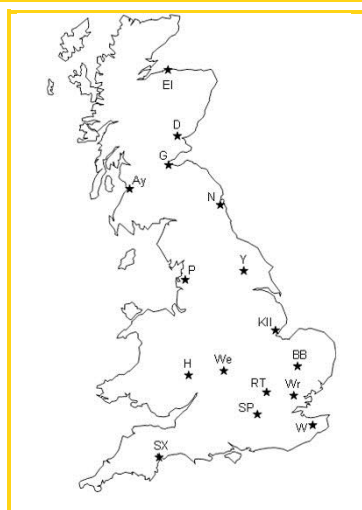
CARROTS and PARSNIPS

- Numbers of the willow–carrot aphid are highest at York and the parsnip aphids are highest at Kirton:

	N	Y	P	K	BB	We	H	RT	Wr	SP	W	SX
<i>C.aegopodii</i>	9	24	6	14	2	7	4	0	0	0	0	0
<i>C.pastinaceae</i>	1	69	4	224	18	35	20	19	4	1	1	2
<i>C.theobaldi</i>	0	4	1	131	15	6	2	2	4	0	0	0

PEAS and BEANS

- The pea aphid was caught at nine sites this week, with the highest number at Wye **ST**. Combining peas should be sprayed when around 20% of plants are infested and vining peas when 15% of plants are infested. Pea aphids can transmit viruses even with low numbers present.
- Black bean aphids have been caught in both **ST** and **YWT** across the country, with highest numbers in south western England. The threshold for control of black bean aphid in field and broad beans is 10% plant colonisation at early flowering. A lower threshold of 5% infested is advised to prevent virus transmission.



Suction-trapping Results

The information below relates to suction-trap samples collected during Bulletin Week **14: 26/6 – 02/07**.

*' indicates where totals have been corrected proportionally to seven days, fewer days' samples having been processed and **0 = none so far this year.**

Rose-grain aphid (Metopolophium dirhodum)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0		13	96	14	49	115
Gogarbank (Edinburgh)	1	↓	1	90	206	26	126
Newcastle	5	↓	7	31	54	35	55
York	36	↑	4	/	156	27	/
Preston	1	↓	0	137	164	63	278
Kirton	*5	↓	1	260	205	26	433
Broom's Barn (Bury St Edmunds)	27	↓	1	258	166	32	454
Wellesbourne	*84	↑	0	96	199	51	210
Hereford	13	↓	0	129	125	34	244
Rothamsted (Harpenden)	16	↑	1	118	69	41	211
Writtle	*2	↓	0	156	79	44	279
Silwood Park (nr Ascot)	8	↑	0	38	31	18	102
Wye	15	↓	3	33	76	19	71
Starcross (nr Exeter)	8	↑	1	40	130	61	259

The rose-grain aphid was caught at all sites but Dundee this bulletin week, increasing at five sites.

Bird cherry–oat aphid (<i>Rhopalosiphum padi</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0	↓	157	141	9	712	277
Gogarbank (Edinburgh)	4	↓	5	150	132	72	218
Newcastle	5	↓	27	70	78	63	184
York	12	↓	4	/	96	61	/
Preston	16	↓	2	19	832	67	64
Kirton	*12	↑	1	106	85	192	415
Broom's Barn (nr Bury St Edmunds)	4	↓	3	288	88	261	544
Wellesbourne	*9	↑	0	11	116	251	135
Hereford	3	↑	5	55	113	181	143
Rothamsted (Harpenden)	4	↑	5	108	40	199	218
Writtle	*11	↓	1	141	77	417	304
Silwood Park (nr Ascot)	3	↓	3	23	54	150	155
Wye	9	↓	7	27	123	189	166
Starcross (nr Exeter)	2	↓	8	42	176	512	256

The bird cherry–oat aphid was caught at all sites except Dundee this bulletin week, with the highest numbers at Preston (16), York (12) and Kirton (12).

Grain aphid (<i>Sitobion avenae</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0	↓	14	11	6	43	33
Gogarbank (Edinburgh)	2	↓	1	38	111	22	54
Newcastle	2	↓	7	16	16	29	33
York	72	↓	0	/	267	19	/
Preston	7		1	63	160	24	99
Kirton	*9	↑	0	107	31	13	130
Broom's Barn (nr Bury St Edmunds)	18	↑	0	290	36	22	321
Wellesbourne	*7	↑	1	60	30	46	122
Hereford	3	↑	0	96	30	21	133
Rothamsted (Harpenden)	7	↑	4	189	19	22	218
Writtle	*18	↑	2	225	31	23	276
Silwood Park (nr Ascot)	25	↑	0	68	37	25	111
Wye	33	↑	8	36	38	50	62
Starcross (nr Exeter)	46	↑	7	54	118	61	117

The grain aphid was caught at all sites apart from Dundee this week, with numbers increasing in the south and decreasing in the north. Highest numbers were caught at York (72) and Starcross (46).

Peach–potato aphid (<i>Myzus persicae</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*2	↓	3	1	20	13	5
Gogarbank (Edinburgh)	5	↓	0	4	84	3	8
Newcastle	64	↓	1	2	246	19	13
York	47	↓	0	/	902	246	/
Preston	2	↓	0	42	49	116	76
Kirton	*35	↓	2	151	672	191	360
Broom's Barn (nr Bury St Edmunds)	16	↓	0	157	1244	367	657
Wellesbourne	*97	↓	0	62	912	1558	633
Hereford	44	↓	0	37	327	543	183
Rothamsted (Harpenden)	23	↓	2	68	265	283	302
Writtle	*4	↓	0	171	123	403	605
Silwood Park (nr Ascot)	5	↓	0	8	25	52	56
Wye	17	↓	0	16	175	69	207
Starcross (nr Exeter)	6	↓	0	72	128	44	139

The peach–potato aphid was caught at all fourteen sites this week, with numbers decreasing at all sites and numbers highest at Wellesbourne (97) and Newcastle (64).

Potato aphid (<i>Macrosiphum euphorbiae</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0	↓	1	2	10	14	10
Gogarbank (Edinburgh)	4		0	8	64	14	27
Newcastle	2		1	2	33	4	11
York	4	↓	0	/	41	9	/
Preston	0	↓	1	6	28	28	24
Kirton	*5	↑	0	18	66	15	32
Broom's Barn (nr Bury St Edmunds)	1	↓	0	14	21	4	27
Wellesbourne	*2	↑	0	4	54	19	32
Hereford	4	↓	0	15	109	27	44
Rothamsted (Harpenden)	1	↓	0	3	13	14	16
Writtle	*0	↓	0	6	53	16	33
Silwood Park (nr Ascot)	0	↓	0	2	9	15	18
Wye	0		0	0	19	2	10
Starcross (nr Exeter)	0		0	5	37	9	36

The potato aphid was caught in single figures at eight sites this bulletin week, with the highest number at Hereford (5).

Cabbage aphid (<i>Brevicoryne brassicae</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0		0	0	2	0	0
Gogarbank (Edinburgh)	1	↓	0	0	19	2	2
Newcastle	6	↑	0	1	17	1	5
York	8	↑	0	/	27	42	/
Preston	0	↓	0	2	20	94	24
Kirton	*2	↓	0	72	37	69	122
Broom's Barn (nr Bury St Edmunds)	7	↑	0	26	115	34	56
Wellesbourne	*12		0	140	67	1269	710
Hereford	9	↑	0	50	76	985	233
Rothamsted (Harpenden)	2		0	13	4	7	29
Writtle	*2	↑	0	43	17	41	148
Silwood Park (nr Ascot)	5	↑	0	14	9	9	39
Wye	7	↓	0	6	16	21	63
Starcross (nr Exeter)	2	↓	0	17	58	9	123

The mealy cabbage aphid was caught at twelve sites this week, increasing at six sites with the highest numbers at Wellesbourne (12).

Willow-carrot aphid (<i>Cavariella aegopodii</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0		2	2	14	172	79
Gogarbank (Edinburgh)	2		4	8	73	153	98
Newcastle	9	↓	25	12	145	59	89
York	24	↑	0	/	739	454	/
Preston	6		2	38	528	1055	614
Kirton	*14	↑	0	83	1027	692	739
Broom's Barn (nr Bury St Edmunds)	2		4	39	594	446	838
Wellesbourne	*7	↑	1	34	923	426	555
Hereford	4	↑	0	13	836	149	390
Rothamsted (Harpenden)	0		2	19	136	237	472
Writtle	*0		0	24	250	480	993
Silwood Park (nr Ascot)	0		0	6	113	124	293
Wye	0		5	11	154	242	424
Starcross (nr Exeter)	0		0	14	160	129	160

The willow-carrot aphid was caught at eight sites this week. Numbers are up slightly at several sites including York which had highest number (24) but down at Newcastle.

Pea aphid (<i>Acyrtosiphon pisum</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0	↓	1	2	1	4	3
Gogarbank (Edinburgh)	0	↓	0	5	4	2	9
Newcastle	0	↓	0	3	6	9	6
York	0		0	/	1	8	/
Preston	0		0	21	10	6	26
Kirton	*23		1	67	80	64	115
Broom's Barn (nr Bury St Edmunds)	8	↓	0	59	59	88	123
Wellesbourne	*8	↓	1	61	80	175	132
Hereford	8	↑	0	17	37	103	52
Rothamsted (Harpenden)	13	↓	0	41	60	108	102
Writtle	*4	↓	0	79	83	111	154
Silwood Park (nr Ascot)	2		0	13	13	51	55
Wye	31	↑	1	16	77	33	62
Starcross (nr Exeter)	1	↓	0	19	23	30	68

The pea aphid was caught at nine sites this week, with numbers decreasing at many sites but rising at Hereford and Wye. The highest number was also at Wye (31).

Black bean aphid (<i>Aphis fabae</i>)	Bulletin Week Totals		26/06-02/07		Accumulated until		02/07
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	*0		1	0	0	4	3
Gogarbank (Edinburgh)	0		0	1	9	3	3
Newcastle	1	↓	0	2	6	0	3
York	24	↓	0	/	59	0	/
Preston	16	↓	0	12	57	1	15
Kirton	*14	↑	0	57	27	8	67
Broom's Barn (nr Bury St Edmunds)	2	↓	0	114	104	1	150
Wellesbourne	*16	↑	0	55	94	2	109
Hereford	6	↑	0	39	10	0	63
Rothamsted (Harpenden)	17	↑	0	92	88	5	159
Writtle	*0	↓	0	121	83	2	206
Silwood Park (nr Ascot)	0	↓	1	22	12	12	50
Wye	3	↑	0	14	21	2	39
Starcross (nr Exeter)	51	↓	2	7	257	209	80

The black bean aphid was caught at ten sites this week, with the highest number at Starcross (51).

Further information

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

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