

26th May 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 – The warm humid weather has promoted greater aphid flight activity and suggests aphids will reproduce quickly once crops are located. The diversity of species in the traps continues to increase with many tree aphids now migrating in large numbers.

CEREALS

- Numbers of cereal aphids in the suction-traps increased this week, particularly in the west at Preston and Starcross. Elsewhere numbers generally remain at or below the 10yr mean for this stage in the year.
- Field reports received mirror the **ST** catches and indicate that cereal aphid numbers are increasing in the west, all the way from south west England up to south west Scotland. The threshold for control against direct feeding damage is 50% of tillers infested before GS61 increasing to 66% of tillers infested from GS61 to two weeks before the end of grain filling. Typical spring barley crops have now reached GS32, but **there remains a potential BYDV threat to backward spring barley until they reach GS31.**
- **Monitoring crops is advised.**

POTATOES

- The peach–potato aphid (*Myzus persicae*) and the potato aphid (*Macrosiphum euphorbiae*) have been caught throughout much of England both the **ST** and in the **YWT**.
- **Virus pressure is high in northern England, Midlands and the south west**, moderate in East Anglia and low in northern Scotland.
- Numbers of **both** colonising and non-colonising PVY vectors are higher than average for the time of year in the **YWT**. SASA in Scotland suggest early season aphid activity appears approx. 2-3 weeks ahead of a 30-year average. Non-colonising vectors of PVY and PVA such as the willow-carrot aphid and the leaf curling plum aphid may contribute to the overall virus pressure through sheer weight of numbers on young plants.
- Cereal aphids and the black bean aphids are being caught across the country in low numbers and may pose a threat later in the season. 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

- Peach–potato aphids (*Myzus persicae*) have been caught throughout much of England in both the **ST** and in the **YWT**. Tests show these migrants are carrying high levels of Turnip yellows virus. Low numbers of the mealy cabbage aphid were caught less widely in both **ST** and **YWT** traps.
- Currant-lettuce aphids (*Nasonovia ribisnigri*) were caught at Writtle and Wye **ST** this week.

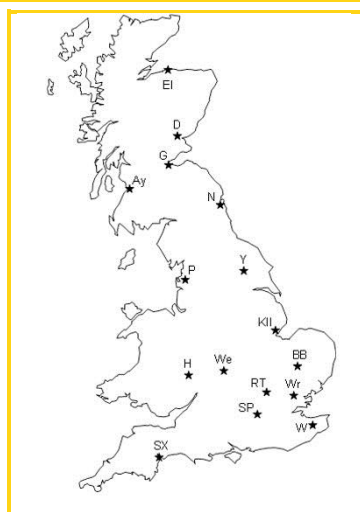
CARROTS and PARSNIPS

- The willow–carrot aphid is flying throughout England, with numbers increasing significantly at most suction-trap sites and with highest numbers at York (208), Kirton (184), Broom’s Barn (162) and Hereford (245).
- Numbers of parsnip aphids also increased, particularly in central England (**ST**):

	N	Y	P	K	BB	We	H	RT	Wr	SP	W	SX
<i>C.pastinaceae</i>	0	6	9	2	11	72	105	6	17	11	6	6
<i>C.theobaldi</i>	0	6	2	28	38	28	37	8	18	30	19	3

PEAS and BEANS

- The pea aphid was caught in low numbers at six **ST** sites this week.
- Presence of pea aphids should be monitored in crops now reaching the first flower growth stage. Combining peas should be sprayed when around 20% of plants are infested and vining peas when 15% of plants are infested.
- A few black bean aphids have been caught in our traps, but no field reports yet. The threshold for black bean aphid in field and broad beans is 10% plant colonisation.



Suction-trapping Results

The information below relates to suction-trap samples collected during Bulletin Week 8: 15/5 – 21/5.

‘*’ 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		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	7*	↑	0	0	12	0	1
Gogarbank (Edinburgh)	6	↑	0	0	12	0	1
Newcastle	0		3	1	0	3	2
York	2		2	/	4	2	/
Preston	30	↑	2	2	41	3	5
Kirton	17	↑	4	1	21	7	4
Broom’s Barn (Bury St Edmunds)	5	↑	7	3	7	11	6
Wellesbourne	0	↓	4	1	2	11	4
Hereford	3		6	2	6	10	3
Rothamsted (Harpenden)	0*		6	2	1	12	4
Writtle	4	↑	11	3	4	24	7
Silwood Park (nr Ascot)	1		2	1	3	9	6
Wye	4	↑	3	1	5	5	2
Starcross (nr Exeter)	20	↑	1	3	40	43	16

The rose-grain aphid was caught at eleven sites, increasing at eight and with numbers highest in the west at Preston (30) and Starcross (20).

Bird cherry–oat aphid (<i>Rhopalosiphum padi</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	5*	↑	2	1	5	6	3
Gogarbank (Edinburgh)	8	↑	0	2	9	1	3
Newcastle	3	↑	1	3	6	5	6
York	3	↑	7	/	6	9	/
Preston	176	↑	6	4	240	11	10
Kirton	9	↑	50	13	15	75	27
Broom's Barn (nr Bury St Edmunds)	6	↑	30	11	9	167	35
Wellesbourne	5	↑	16	11	10	40	23
Hereford	3	↓	13	5	10	45	15
Rothamsted (Harpenden)	1*	↓	15	8	6	79	23
Writtle	7		70	14	15	186	39
Silwood Park (nr Ascot)	5		2	6	15	103	42
Wye	4	↑	31	24	17	134	48
Starcross (nr Exeter)	19	↑	6	13	54	309	99

The bird cherry–oat aphid was caught at all sites this bulletin week. Numbers were up on last week at ten sites and highest at Preston (176).

Grain aphid (<i>Sitobion avenae</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	2*	↑	2	0	2	3	1
Gogarbank (Edinburgh)	0		0	1	0	0	1
Newcastle	2	↑	1	3	2	5	4
York	8	↑	1	/	8	3	/
Preston	35	↑	0	1	59	0	2
Kirton	0	↓	2	2	1	7	3
Broom's Barn (nr Bury St Edmunds)	0		2	1	2	15	3
Wellesbourne	0	↓	2	5	1	19	14
Hereford	3	↑	0	2	4	9	4
Rothamsted (Harpenden)	1*	↑	5	2	2	12	3
Writtle	0		8	2	0	19	5
Silwood Park (nr Ascot)	1	↓	0	1	4	10	6
Wye	0	↓	7	2	2	33	7
Starcross (nr Exeter)	3	↓	2	2	28	24	15

The grain aphid was caught at eight sites this week, with highest numbers at Preston (35).

Peach–potato aphid (<i>Myzus persicae</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0*		0	0	1	0	0
Gogarbank (Edinburgh)	2	↑	0	0	2	0	0
Newcastle	0		0	1	0	0	1
York	6	↑	6	/	9	6	/
Preston	1		0	0	2	0	1
Kirton	7	↑	12	4	11	19	8
Broom's Barn (nr Bury St Edmunds)	14	↑	27	49	24	36	67
Wellesbourne	17	↑	2	23	26	11	42
Hereford	11	↑	3	5	24	11	8
Rothamsted (Harpenden)	10*	↑	9	15	19	22	27
Writtle	0	↓	46	19	3	71	48
Silwood Park (nr Ascot)	0	↓	4	3	3	9	8
Wye	17	↑	2	13	27	8	20
Starcross (nr Exeter)	3	↓	0	8	39	31	25

The peach–potato aphid was caught at ten sites this week, with numbers increasing at eight sites and highest numbers in central England and at Wye.

Potato aphid (<i>Macrosiphum euphorbiae</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	5*	↑	0	1	5	0	1
Gogarbank (Edinburgh)	7	↑	0	1	11	0	1
Newcastle	10	↑	0	1	10	0	2
York	4		2	/	9	2	/
Preston	3	↑	7	1	5	8	2
Kirton	1	↓	4	1	10	4	3
Broom's Barn (nr Bury St Edmunds)	0		0	1	7	0	4
Wellesbourne	11	↑	1	2	14	2	5
Hereford	6	↑	0	1	12	0	2
Rothamsted (Harpenden)	3*	↑	0	1	4	4	3
Writtle	1		5	3	7	10	7
Silwood Park (nr Ascot)	0		1	1	1	2	5
Wye	2		0	1	4	2	2
Starcross (nr Exeter)	0	↓	1	2	10	2	9

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

Cabbage aphid (<i>Brevicoryne brassicae</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0*		0	0	0	0	0
Gogarbank (Edinburgh)	0	↓	0	0	2	0	0
Newcastle	0		0	0	0	0	0
York	0		0	/	0	0	/
Preston	0		0	1	0	0	2
Kirton	0		24	4	0	25	5
Broom's Barn (nr Bury St Edmunds)	0	↓	0	2	3	1	5
Wellesbourne	0	↓	18	13	2	19	22
Hereford	1	↑	2	4	1	3	7
Rothamsted (Harpenden)	0*		1	1	0	1	3
Writtle	1	↑	5	7	1	8	12
Silwood Park (nr Ascot)	0		0	4	0	0	5
Wye	0		0	1	0	12	3
Starcross (nr Exeter)	8	↑	1	3	14	3	16

The mealy cabbage aphid was caught in low numbers at three sites this week, with highest numbers at Starcross (8).

Willow-carrot aphid (<i>Cavariella aegopodii</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	4*	↑	4	6	4	4	6
Gogarbank (Edinburgh)	3	↑	1	1	5	1	2
Newcastle	5	↑	1	4	5	1	5
York	208	↑	26	/	244	30	/
Preston	63	↑	44	63	83	46	97
Kirton	184	↑	103	131	250	166	183
Broom's Barn (nr Bury St Edmunds)	162	↑	80	132	215	100	193
Wellesbourne	119	↑	18	22	138	27	35
Hereford	245	↑	5	31	301	11	41
Rothamsted (Harpenden)	22*	↑	7	36	42	31	57
Writtle	82	↑	52	107	108	89	192
Silwood Park (nr Ascot)	29	↑	2	36	66	18	101
Wye	42	↑	44	41	61	90	68
Starcross (nr Exeter)	33	↑	30	15	87	64	37

The willow-carrot aphid was caught at all sites this week, with numbers increasing at all of them. The highest numbers were at York (208), Kirton (184), Broom's Barn (162) and Hereford (245).

Pea aphid (<i>Acyrtosiphon pisum</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0*		0	0	0	0	0
Gogarbank (Edinburgh)	0		0	0	0	0	0
Newcastle	0		0	0	0	0	0
York	1	↑	3	/	1	3	/
Preston	0	↓	0	0	1	1	1
Kirton	2		5	2	4	6	3
Broom's Barn (nr Bury St Edmunds)	4	↑	18	3	6	21	5
Wellesbourne	0		12	3	0	25	7
Hereford	0	↓	0	1	1	33	5
Rothamsted (Harpenden)	0*		10	3	0	35	7
Writtle	0		39	5	0	43	9
Silwood Park (nr Ascot)	1	↑	6	2	3	19	7
Wye	1		5	2	2	14	5
Starcross (nr Exeter)	2	↑	0	3	4	15	10

The pea aphid was caught in low numbers at six sites this week.

Black bean aphid (<i>Aphis fabae</i>)	Bulletin Week Totals		15/05-21/05		Accumulated until		21/05
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0*		0	0	0	0	0
Gogarbank (Edinburgh)	0	↓	0	0	2	0	0
Newcastle	0		0	0	0	0	0
York	0		0	/	0	0	/
Preston	1		1	0	2	1	0
Kirton	0		1	0	0	1	0
Broom's Barn (nr Bury St Edmunds)	1	↑	1	1	2	1	2
Wellesbourne	1	↑	0	1	2	0	1
Hereford	1		0	1	3	0	1
Rothamsted (Harpenden)	0*	↓	0	0	2	0	1
Writtle	2	↓	0	1	13	0	2
Silwood Park (nr Ascot)	0	↓	0	1	2	0	3
Wye	0	↓	0	1	4	0	1
Starcross (nr Exeter)	9	↑	3	1	14	8	3

The black bean aphid was caught in low numbers at six sites this week, with highest numbers at Starcross (9).

Further information

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

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