AHDB Aphid News

30th June 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 – Aphid flight activity suffered through the mini heat wave and then seemed to fail to recover much over the cooler but windy weekend. Monitoring crops is still advised, although there is some evidence that natural enemies are now mobilising and starting to do a good job of containment. There are field reports of large numbers of ladybirds moving into carrot and some pulse crops.

CEREALS

- Numbers of all three cereal aphids in the **ST** have increased marginally this week and are highest in northern England.
- No field reports have been received of aphid numbers in spring barley increasing 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 northern England and the Midlands but medium across all other areas except the borders. SASA report that the cumulative totals of aphids known to vector potato viruses in the Scottish ST is the highest recorded in the last 10 years (**http://www.sasa.gov.uk/seed-ware-potatoes/virology/virus-epidemiology**).**
- The peach–potato aphid (*Myzus persicae*) numbers increased at seven **ST** sites with highest numbers at York (454), Kirton (142) and Newcastle (125), as well as high numbers at some **YWT** sites in northern, central and eastern regions.
- Numbers of cereal aphids, non-colonising vectors of PVY and PVA, increased marginally this week.
- Black bean aphids have been caught across the country in both **ST** and **YWT** this week. This species transmits PVA very efficiently, so even a few early in the season on PVA susceptible varieties (Desiree, King Edward, Maris Peer, Marfona etc.) may be a problem. 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 increased at seven **ST** sites with highest numbers at York (454), Kirton (142) and Newcastle (125). Tests show that up to 75% of these migrants are carrying Turnip yellows virus.
- Field reports confirm peach–potato aphids are leaving rapidly maturing OSR to find alternative summer hosts.
- The mealy cabbage aphid was caught at ten **ST** sites this week, increasing at five sites with the highest numbers at Preston (12) and Wellesbourne (12), and in **YWT** in low numbers. Field reports indicate numbers are below the threshold of >4% plants infested before petal fall in spring OSR.
- Two currant-lettuce aphids (*Nasonovia ribisnigri*) were caught at Wellesbourne and one at York **ST** this week.

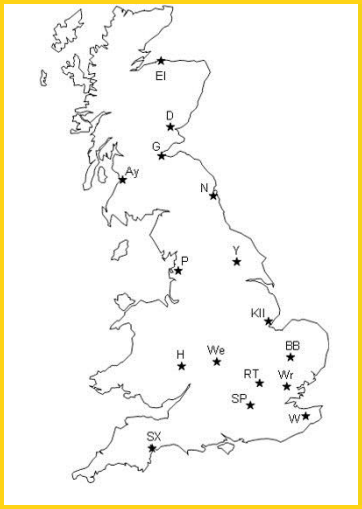
CARROTS and PARSNIPS

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

	N	Y	P	K	BB	We	H	RT	Wr	SP	W	SX
C.aegopodii	42	4	5	12	2	4	2	0	0	0	0	0
C.*pastinaceae*	0	99	2	234	19	72	45	5	12	1	1	1
C.*theobaldi*	0	4	2	48	2	2	4	0	0	0	0	0

PEAS and BEANS

- The pea aphid was caught at twelve sites this week, with highest numbers at Wellesbourne **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. Field reports suggest numbers are increasing in southern England, particularly in spring beans. 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 **13: 19/6 – 25/6.**

'*' 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**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0		26	14	14	36	19
Gogarbank (Edinburgh)	6	↓	7	21	205	25	37
Newcastle	*11	↑	12	11	49	28	24
York	*30	↑	0	/	120	23	/
Preston	*9	↓	4	67	163	63	141
Kirton	61	↑	6	113	201	25	173
Broom's Barn (Bury St Edmunds)	41	↑	2	100	139	31	196
Wellesbourne	53	↑	6	59	115	51	114
Hereford	33	↑	1	59	112	34	115
Rothamsted (Harpenden)	6	↓	3	44	53	40	92
Writtle	10	↓	2	55	78	44	123
Silwood Park (nr Ascot)	*6	↑	0	20	23	18	64
Wye	*16	↓	6	25	61	16	38
Starcross (nr Exeter)	*2	↓	3	48	122	60	220

The rose–grain aphid was caught at all sites but Dundee this bulletin week, increasing slightly at seven sites.

Bird cherry–oat aphid *(Rhopalosiphum padi)*	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	2	↑	446	93	9	555	135
Gogarbank (Edinburgh)	8	↓	43	41	128	67	69
Newcastle	*6		21	57	73	36	114
York	*22	↑	8	/	84	57	/
Preston	*33	↓	4	12	816	65	45
Kirton	6	↓	13	92	73	191	309
Broom's Barn (nr Bury St Edmunds)	8	↓	5	58	84	258	257
Wellesbourne	7	↓	2	16	107	251	124
Hereford	1	↑	8	20	110	176	89
Rothamsted (Harpenden)	3	↑	10	29	36	194	110
Writtle	12	↑	6	33	67	416	163
Silwood Park (nr Ascot)	*16	↑	4	7	51	147	132
Wye	*22	↓	1	7	113	182	139
Starcross (nr Exeter)	*21	↑	12	13	174	504	213

The bird cherry–oat aphid was caught at all sites this bulletin week, with the highest number at Preston (33).

Grain aphid *(Sitobion avenae)*	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	2	↑	16	9	6	29	23
Gogarbank (Edinburgh)	8	↓	5	5	109	21	15
Newcastle	*5	↑	12	5	13	22	17
York	*86	↑	0	/	195	19	/
Preston	*7	↑	4	10	153	23	35
Kirton	6		2	10	21	13	23
Broom's Barn (nr Bury St Edmunds)	4		0	16	18	22	31
Wellesbourne	1	↓	2	20	23	45	62
Hereford	0	↓	1	15	27	21	37
Rothamsted (Harpenden)	3	↑	0	15	12	18	29
Writtle	2	↓	0	33	13	21	51
Silwood Park (nr Ascot)	*7	↑	4	8	12	25	43
Wye	*1	↑	2	11	5	42	26
Starcross (nr Exeter)	*32	↑	15	16	72	54	63

The grain aphid was caught at thirteen sites this week, with highest numbers at York (86) and Starcross (32).

Peach–potato aphid (*Myzus persicae*)	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	16	↑	9	1	18	10	3
Gogarbank (Edinburgh)	22		3	1	79	3	4
Newcastle	*125	↑	12	4	182	18	10
York	*454	↑	64	/	855	246	/
Preston	*33	↑	2	7	47	116	34
Kirton	142	↓	23	139	637	189	209
Broom's Barn (nr Bury St Edmunds)	70	↓	11	174	1228	367	501
Wellesbourne	99	↑	22	92	815	1558	571
Hereford	47	↓	11	30	283	543	147
Rothamsted (Harpenden)	24	↓	1	76	242	281	234
Writtle	8	↓	10	126	119	403	434
Silwood Park (nr Ascot)	*6	↑	0	7	20	52	48
Wye	*21	↓	5	85	158	69	191
Starcross (nr Exeter)	*30	↑	0	7	122	44	67

The peach–potato aphid was caught at all fourteen sites this week, with numbers increasing at seven sites and highest numbers at York (454), Kirton (142) and Newcastle (125).

Potato aphid (*Macrosiphum euphorbiae*)	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	3	↑	5	2	10	13	7
Gogarbank (Edinburgh)	4	↑	3	4	60	14	19
Newcastle	*2		0	2	31	3	10
York	*6	↑	4	/	37	9	/
Preston	*1	↑	4	3	28	27	18
Kirton	0	↓	0	3	62	15	14
Broom's Barn (nr Bury St Edmunds)	5	↑	0	3	20	4	13
Wellesbourne	0	↓	2	10	51	19	28
Hereford	10	↓	2	8	105	27	28
Rothamsted (Harpenden)	4	↑	0	3	12	14	13
Writtle	1	↓	0	4	53	16	27
Silwood Park (nr Ascot)	*1	↑	0	2	9	15	16
Wye	*0		0	2	19	2	10
Starcross (nr Exeter)	*0	↓	1	3	37	9	31

The potato aphid was caught at ten sites this bulletin week, with the highest number at Hereford (10) but single figures elsewhere.

Cabbage aphid (*Brevicoryne brassicae)*	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	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)	2	↓	1	0	18	2	2
Newcastle	*5		0	0	11	1	5
York	*0	↓	4	/	19	42	/
Preston	*12	↑	4	1	20	94	22
Kirton	6	↓	1	20	34	69	49
Broom's Barn (nr Bury St Edmunds)	3	↓	0	6	108	34	30
Wellesbourne	12	↑	6	197	56	1269	571
Hereford	8	↑	8	20	67	985	183
Rothamsted (Harpenden)	2	↑	0	5	2	7	16
Writtle	0	↓	0	13	16	41	105
Silwood Park (nr Ascot)	*0		0	6	4	9	25
Wye	*8	↑	0	38	9	21	57
Starcross (nr Exeter)	*4		0	29	56	9	106

The mealy cabbage aphid was caught at ten sites this week, increasing at five sites with the highest numbers at Preston (12) and Wellesbourne (12).

Willow–carrot aphid *(Cavariella aegopodii)*	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0		22	5	14	170	77
Gogarbank (Edinburgh)	2		17	13	71	149	90
Newcastle	*49	↑	25	19	136	34	77
York	*5	↓	47	/	715	454	/
Preston	*6	↓	16	30	522	1053	576
Kirton	12	↓	34	112	1013	692	655
Broom's Barn (nr Bury St Edmunds)	2	↓	14	64	592	442	798
Wellesbourne	4	↓	8	78	916	425	522
Hereford	2	↓	0	28	832	149	378
Rothamsted (Harpenden)	0	↓	10	51	136	235	452
Writtle	0	↓	10	52	250	480	969
Silwood Park (nr Ascot)	*0		1	13	113	124	287
Wye	*0		7	49	154	237	412
Starcross (nr Exeter)	*0	↓	2	16	160	129	146

The willow–carrot aphid was caught at eight sites this week. Numbers are down at all sites but Newcastle which had the highest number (49).

Pea aphid *(Acyrthosiphon pisum)*	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	1	↑	3	1	1	3	1
Gogarbank (Edinburgh)	1		1	2	4	2	4
Newcastle	*4	↑	4	2	6	9	4
York	*0		0	/	1	8	/
Preston	*0	↓	0	2	10	6	5
Kirton	23	↑	10	27	57	63	47
Broom's Barn (nr Bury St Edmunds)	10	↓	15	21	51	88	64
Wellesbourne	66	↑	4	21	72	174	70
Hereford	1		2	6	29	103	35
Rothamsted (Harpenden)	16	↓	2	16	47	108	61
Writtle	15	↓	5	23	80	111	75
Silwood Park (nr Ascot)	*2	↑	1	8	11	51	42
Wye	*5	↓	3	27	46	32	46
Starcross (nr Exeter)	*2	↑	1	6	22	30	49

The pea aphid was caught at twelve sites this week, with numbers increasing at six sites.

Black bean aphid *(Aphis fabae)*	**Bulletin Week Totals**		**19/06-25/06**		**Accumulated until**		**25/06**
	2017	Compared to last Bulletin week	2016	10-year average 2007-16	2017	2016	10-year average 2007-16
Dundee	0		1	0	0	3	3
Gogarbank (Edinburgh)	0	↓	0	0	9	3	2
Newcastle	*5	↑	0	0	5	0	1
York	*27	↑	0	/	35	0	/
Preston	*20	↑	0	1	41	1	3
Kirton	6	↓	0	7	13	8	10
Broom's Barn (nr Bury St Edmunds)	5	↓	0	23	102	1	36
Wellesbourne	6	↓	0	40	78	2	54
Hereford	1	↑	0	6	4	0	25
Rothamsted (Harpenden)	10	↓	2	46	71	5	67
Writtle	9	↓	2	64	83	2	85
Silwood Park (nr Ascot)	*6	↑	2	9	12	11	27
Wye	*1	↑	1	16	18	2	25
Starcross (nr Exeter)	*57	↓	31	9	206	207	73

The black bean aphid was caught at twelve sites this week, with the highest number at Starcross (57).

Further information

Please send information on crop aphids to: mark-s.taylor@rothamsted.ac.uk
AHDB Cereals and Oilseeds: Click here
AHDB Potatoes: Click here
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