



CABBAGE ROOT FLY – 14 October 2021

Page	Contents
1	Cabbage root fly forecasts 2021
5	Cabbage root fly monitoring 2021
8	Historical information from 2020

Cabbage root fly forecasts 2021

The forecasts in the table below are for ‘early-emerging’ cabbage root flies. There are some areas of the UK where a proportion of the cabbage root flies emerge later in the spring than would be expected. We call these ‘late emerging’ flies and they are genetically different from ‘early-emerging’ flies. Relatively large numbers of late-emerging flies occur in some parts of Devon and south-west Lancashire. [Egg-laying by first generation late emerging flies was predicted to start in early June in Devon and in mid-June in Lancashire.](#)

The forecast outputs below are based on weather data collected by Plantsystems Limited and funded by Syngenta. The forecasts predict the timing of fly activity. They do not predict the number of insects present in the crop, as this depends on the size of the local fly population. For control purposes, we consider that the pest has become active when 10% of the insects have emerged/laid eggs and that the peak of activity has occurred when 50% have emerged/laid eggs.

Once they have emerged, female cabbage root flies require some time to feed, mate and mature their eggs. This is equivalent to about 80 day-degrees above 6°C.



In partnership with



Cabbage root fly forecasts 2021 – early-emerging flies

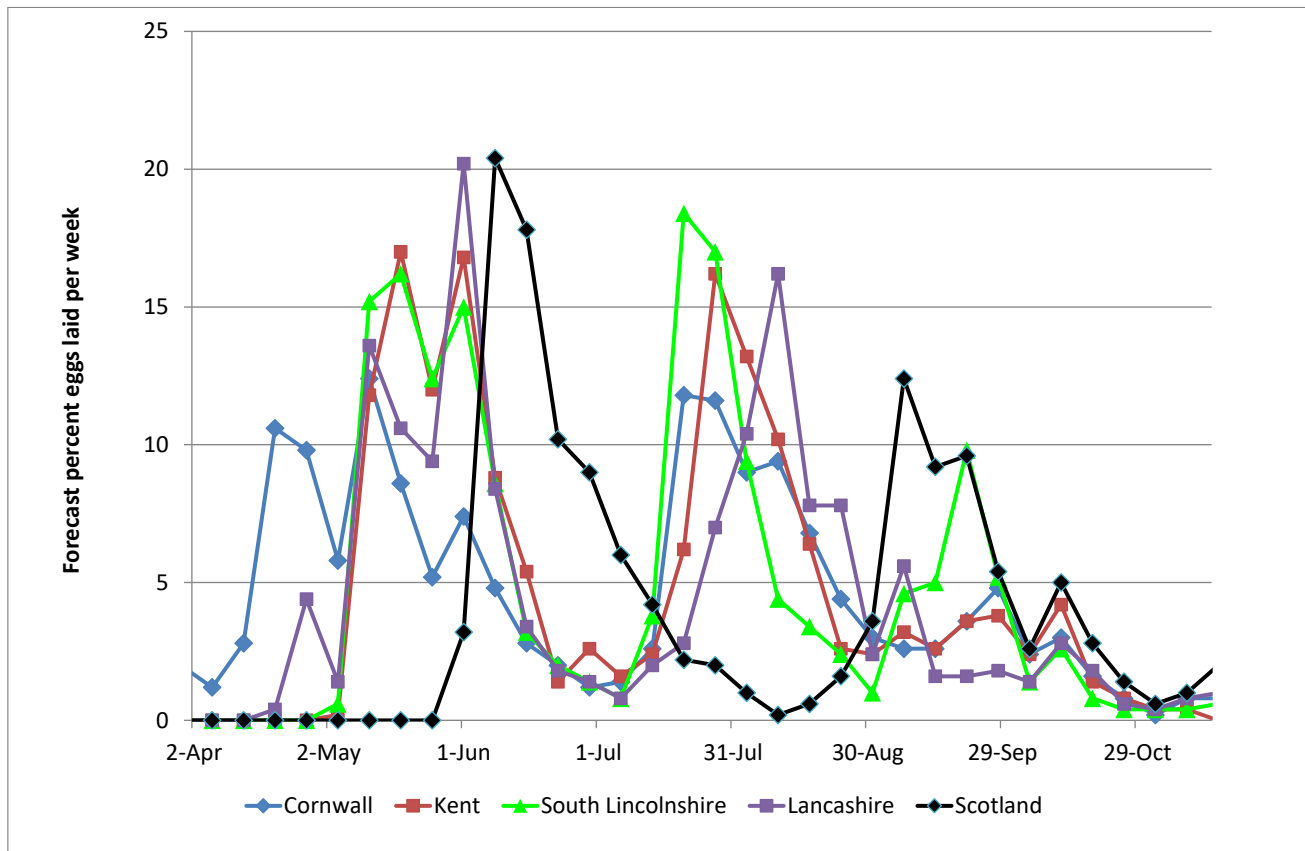
Region	First generation	First generation	Second generation	Second generation	Third generation
	Forecast 10% egg-laying in 2021	Forecast 50% egg-laying in 2021	Forecast 10% egg-laying in 2021	Forecast 50% egg-laying in 2021	Forecast 10% egg-laying in 2021
Cornwall (Newquay)	19 Apr	13 May	18 Jul	2 Aug	18 Sep
Kent (Canterbury)	12 May	24 May	22 Jul	3 Aug	21 Sep
Suffolk (Woodbridge)	9 May	22 May	11 Jul	19 Jul	30 Aug
Wellesbourne (Warwick)	7 May	19 May	9 Jul	17 Jul	29 Aug
Norfolk (Norwich)	10 May	29 May	14 Jul	24 Jul	31 Aug
South Lincolnshire (Boston)	10 May	26 May	17 Jul	29 Jul	8 Sep
Nottingham (Bilsthorpe)	14 May	30 May	26 Jul	9 Aug	24 Sep
Lancashire (Ormskirk)	10 May	27 May	27 Jul	12 Aug	29 Sep
York (Market Weighton)	13 May	30 May	23 Jul	7 Aug	20 Sep
Scotland (Blairgowrie)	30 May	18 Jun	31 Aug	10 Sep	-



In partnership with



The graph below shows the forecast pattern of first, second and third generation egg-laying for 2021 at 5 of the sites in the table above – early-emerging flies.

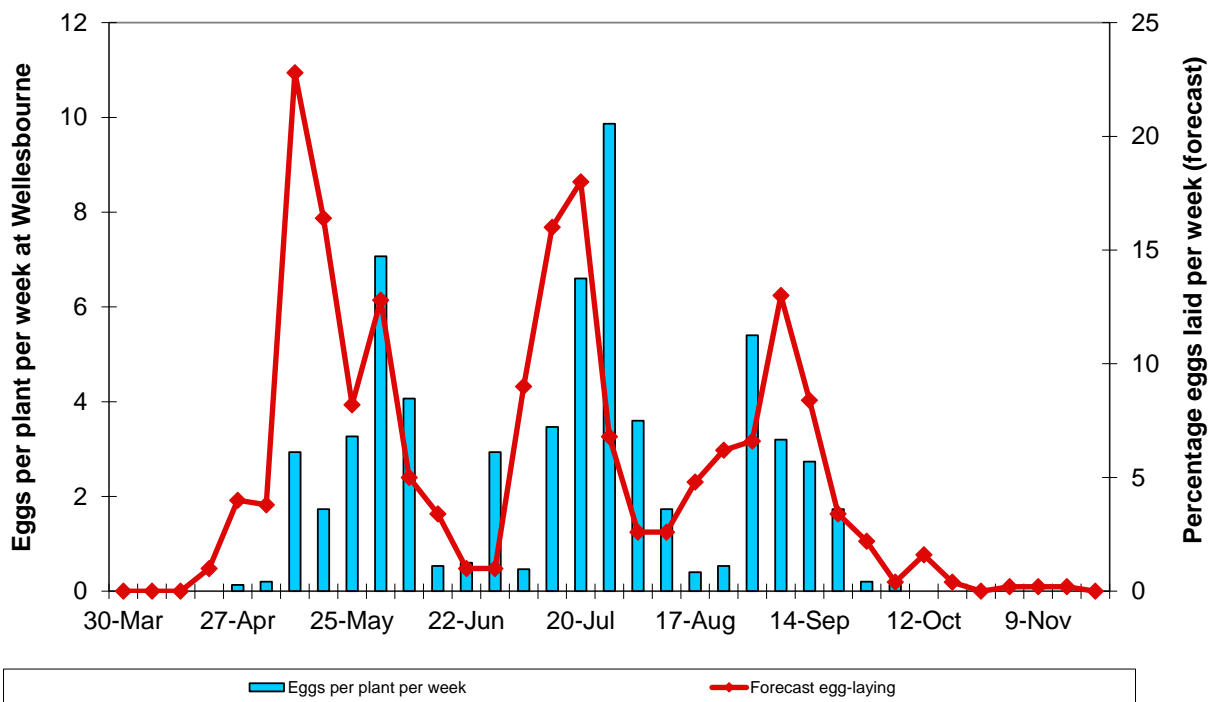




In partnership with



The graph below compares the forecast pattern of egg-laying at Wellesbourne in 2021 with the number of eggs laid at Wellesbourne.



In partnership with



Cabbage root fly monitoring 2021

Date	Adult cabbage root flies - total in 3 traps near swede plot. Traps have been out all winter.		Numbers of eggs laid on 15 cauliflower plants.
	Male	Female	
2-Mar	0	0	-
9-Mar	0	0	-
16-Mar	3	0	-
23-Mar	0	0	-
30-Mar	0	0	-
5-Apr	2	1	-
13-Apr	6	1	-
16-Apr	20	4	-
20-Apr	29	0	0
23-Apr	5	2	0
27-Apr	33	2	2
30-Apr	7	0	1
4-May	3	0	2
7-May	4	0	11
11-May	3	4	33
14-May	15	2	19
18-May	14	1	7
21-May	16	1	28
25-May	4	1	21
28 May	21	0	23
1 June	12	0	83

In partnership with



Cabbage root fly monitoring 2021

Date	Adult cabbage root flies - total in 3 traps near swede plot. Traps have been out all winter.		Numbers of eggs laid on 15 cauliflower plants.
	Male	Female	
4 June	16	1	42
8 June	1	1	19
11 June	0	0	5
15 June	1	0	3
18 June	0	2	3
22 June	2	6	6
25 June	14	9	40
29 June	10	12	4 (new plants)
2 July	25	9	3
6 July	65	12	4
9 July	65	12	4
13 July	43	23	48
16 July	39	22	35
20 July	4	4	64
23 July	12	7	50
27 July	12	6	98
30 July	28	24	40
3 August	27	27	14
6 August	17	17	21
10 August	5	7	5
13 August	5	1	4
17 August	1	0	2



In partnership with



Cabbage root fly monitoring 2021

Date	Adult cabbage root flies - total in 3 traps near swede plot. Traps have been out all winter.		Numbers of eggs laid on 15 cauliflower plants.
	Male	Female	
20 August	28	9	0
24 August	47	22	8
27 August	65	16	37
31 August	88	14	44
3 September	72	10	19
7 September	83	15	29
10 September	29	6	26
14 September	32	18	15
17 September	67	22	9
21 September	39	12	17
24 September	15	2	0
28 September	15	1	3
1 October	3	0	1
5 October	4	3	1
8 October	7	2	0
12 October	2	0	0



In partnership with



Historical information from 2020

Cabbage root fly forecasts 2020 – N.B. the Lancashire forecast looks unusually late. There has been a problem with the soil temperature probe.

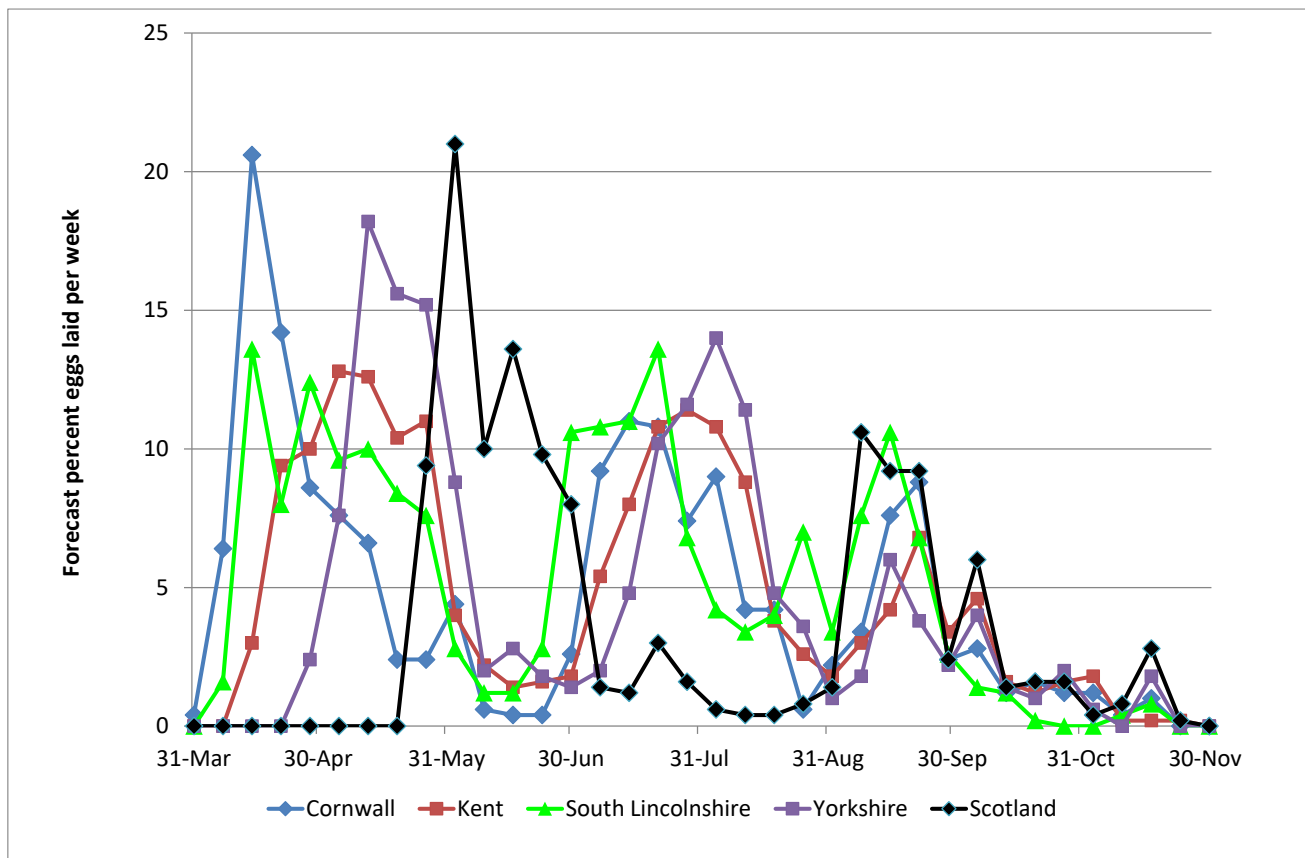
Region	First generation Forecast 10% egg-laying in 2020	First generation Forecast 50% egg-laying in 2020	Second generation Forecast 10% egg-laying in 2020	Second generation Forecast 50% egg-laying in 2020	Third generation Forecast 10% egg- laying in 2020
Cornwall (Newquay)	8 Apr	20 Apr	7 Jul	26 Jul	9 Sep
Kent (Sittingbourne)	21 Apr	7 May	9 Jul	29 Jul	7 Sep
Suffolk (Woodbridge)	20 Apr	6 May	23 Jun	14 Jul	9 Aug
Wellesbourne (Warwick)	17 Apr	29 Apr	23 Jun	12 Jul	12 Aug
Norfolk (Norwich)	22 Apr	15 May	14 Jul	30 Jul	3 Sep
South Lincolnshire (Boston)	11 Apr	1 May	29 June	22 Jul	26 Aug
Nottingham (Bilsthorpe)	27 Apr	16 May	17 Jul	6 Aug	17 Sep
Lancashire (Ormskirk)	8 May	21 May	12 Aug	25 Aug	-
York (Market Weighton)	6 May	18 May	15 Jul	2 Aug	12 Sep
Scotland (Blairgowrie)	26 May	10 Jun	2 Sep	15 Sep	-



In partnership with



The graph below shows the forecast pattern of egg-laying for 2020 at 5 of the sites in the table above.



Cabbage root fly monitoring data 2020

The table below shows the numbers of cabbage root flies recovered from plots at Wellesbourne 2020.

Date	Adult cabbage root flies - total in 3 traps near swedes. Traps were set up on 19 th May.		Numbers of eggs laid on 15 cauliflower plants. Set up on 22 May.
	Male	Female	
22 nd May	8	3	-
26 th May	4	1	1
29 th May	3	2	0
2 nd June	12	1	0
5 th June	4	2	6
9 th June	4	3	7
12 th June	8	5	44
16 th June	20	8	32
19 th June	11	4	19
23 rd June	6	9	24
26 th June	7	4	43
30 th June	8	12	55
3 rd July	31	25	53
7 th July	30	18	58
10 th July	15	11	16
14 th July	64	10	40
17 th July	20	7	5
21 st July	27	5	0
24 th July	21	8	3/0 (old/new plants)
28 th July	25	8	4 (new plants)
31 st July	21	10	5
4 th August	21	13	6



In partnership with



Date	Adult cabbage root flies - total in 3 traps near swedes. Traps were set up on 19 th May.		Numbers of eggs laid on 15 cauliflower plants.
	Male	Female	
7th August	19	11	21
11th August	20	12	9
14 th August	8	8	16
18 th August	14	15	10
21 st August	24	7	10
25 th August	23	15	4
28 th August	11	4	3
1 st September	6	7	2
4 th September	22	2	5
8 th September	29	12	1
11 th September	76	10	0
15 th September	93	16	0
18 th September	47	14	6
22 nd September	49	13	6
25 th September	46	5	3
29 th September	35	4	19
2 nd October	23	4	10
6 th October	9	1	13
9 th October	11	1	2
13 th October	9	0	1
16 th October	9	1	2
20 th October	5	6	0
23 rd October	7	1	0
26 th October	1	0	0



In partnership with



Date	Adult cabbage root flies - total in 3 traps near swedes. Traps were set up on 19 th May.		Numbers of eggs laid on 15 cauliflower plants.
	Male	Female	
30 th October	2	1	Monitoring stopped
3 rd November	0	0	-



In partnership with



The table below shows the numbers of cabbage root flies recovered earlier in the year during 2020.

We first set up the traps in some overwintered swedes at Wellesbourne but because of COVID-19 the traps were moved to the village allotments and a garden at Tysoe in south Warwickshire. No cabbage root flies were captured before the traps were moved. The traps were moved back to Wellesbourne on 19th May.

Date	Male cabbage root flies	Female cabbage root flies	Number of traps
26 th March	0	0	3
27 th March	0	0	3
28 th March	0	0	3
29 th March	0	0	3
30 th March	0	1	8
31 st March	0	0	9
1 st April	0	1	9
2 nd April	0	3	9
3 rd April	0	3	9
4 th April	0	0	9
5 th April	0	0	9
6 th April	1	0	9
7 th April	0	0	9
8 th April	1	0	9
9 th April	5	1	9
10 th April	16	3	9
11 th April	6	3	9
12 th April	7	7	9
13 th April	1	2	9
14 th April	13	5	9
15 th April	32	6	9
16 th April	49	19	9
17 th April	24	14	9
18 th April	4	0	9
19 th April	65	9	9
20 th April	65	15	9



In partnership with



Date	Male cabbage root flies	Female cabbage root flies	Number of traps
21st April	71	12	9
22nd April	50	10	9
23 rd April	34	11	9
24 th April	26	3	9
25 th April	42	6	9
26 th April	33	2	9
27 th April	52	20	9
28 th April	0	3	9
29 th April	12	10	9
30 th April	12	10	9
1 st May	5	2	9
2 nd May	17	17	9
3 rd May	14	3	9
4 th May	26	5	9
5 th May	20	2	9
6 th May	18	7	9
7 th May	2	2	9
8-9 th May	11	2	9
10-11 th May	6	3	9
12 th May	7	2	9
13 th May	3	5	9
14 th May	7	3	9
15 th May	2	1	9
16 th May	3	0	9
17 th May	0	2	9
18 th May	1	2	9
19 th May	3	0	9
20 th May	0	0	9
21 st May	1	1	9
22 nd May	0	0	9



In partnership with



The graph below compares the forecast pattern of egg-laying at Wellesbourne in 2020 with the number of female flies trapped firstly at Tysoe (10 miles away) and then egg-laying at Wellesbourne from 26 May.

