

ARC-Small Grain False Armyworm moth numbers 2021
Caledon and Swellendam
Week 52

Prepared by G J Prinsloo



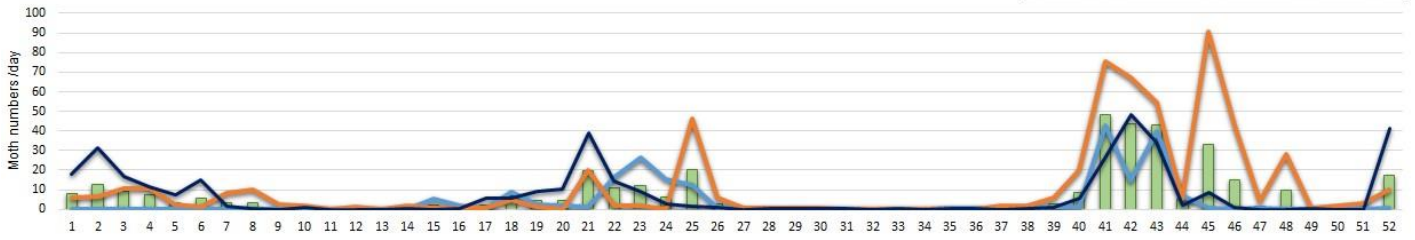
2021 Week numbers

Week #	Begin	End	Week #	Begin	End	Week #	Begin	End	Week #	Begin	End	Week #	Begin	End
1	03-Jan	09-Jan	12	21-Mar	27-Mar	23	06-Jun	12-Jun	34	22-Aug	28-Aug	45	07-Nov	13-Nov
2	10-Jan	16-Jan	13	28-Mar	03-Apr	24	13-Jun	19-Jun	35	29-Aug	04-Sep	46	14-Nov	20-Nov
3	17-Jan	23-Jan	14	04-Apr	10-Apr	25	20-Jun	26-Jun	36	05-Sep	11-Sep	47	21-Nov	27-Nov
4	24-Jan	30-Jan	15	11-Apr	17-Apr	26	27-Jun	03-Jul	37	12-Sep	18-Sep	48	28-Nov	04-Dec
5	31-Jan	06-Feb	16	18-Apr	24-Apr	27	04-Jul	10-Jul	38	19-Sep	25-Sep	49	05-Dec	11-Dec
6	07-Feb	13-Feb	17	25-Apr	01-May	28	11-Jul	17-Jul	39	26-Sep	02-Oct	50	12-Dec	18-Dec
7	14-Feb	20-Feb	18	02-May	08-May	29	18-Jul	24-Jul	40	03-Oct	09-Oct	51	19-Dec	25-Dec
8	21-Feb	27-Feb	19	09-May	15-May	30	25-Jul	31-Jul	41	10-Oct	16-Oct	52	26-Dec	01-Jan
9	28-Feb	06-Mar	20	16-May	22-May	31	01-Aug	07-Aug	42	17-Oct	23-Oct			
10	07-Mar	13-Mar	21	23-May	29-May	32	08-Aug	14-Aug	43	24-Oct	30-Oct			
11	14-Mar	20-Mar	22	30-May	05-Jun	33	15-Aug	21-Aug	44	31-Oct	06-Nov			

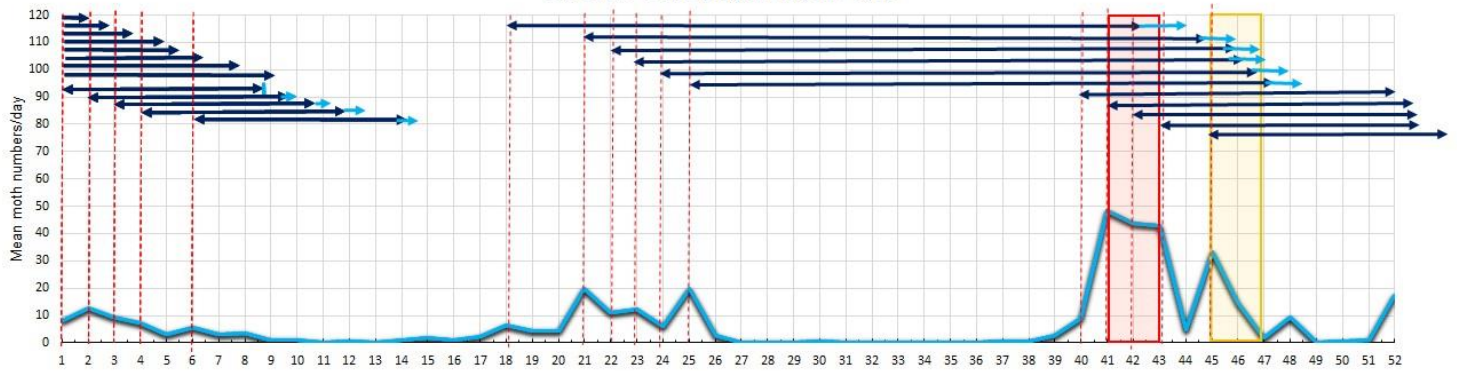
Caledon moth traps

- First graph indicates the original data recieved from the farmers.
- The second graph indicates the mean number of moths, while the dark blue arrows indicate the life cycles as forecasted by the average mean daily temperatures. Light blue arrow indicate the extension of lifecycle due to weather conditions
- The third graph includes the current climatic data as weekly total rainfall and weekly average temperature in relation to the mean moth number.
- The green blocks present the mean planting time and the yellow blocks the harvest time. The red block presents the critical time for presence of larvae.
- Table indicates the dates when larvae will be present (left) and when the new moth flights could be happen.

Caledon moth numbers 2021



Caledon: Total (egg-moth) life cycle



Caledon climate data 2021



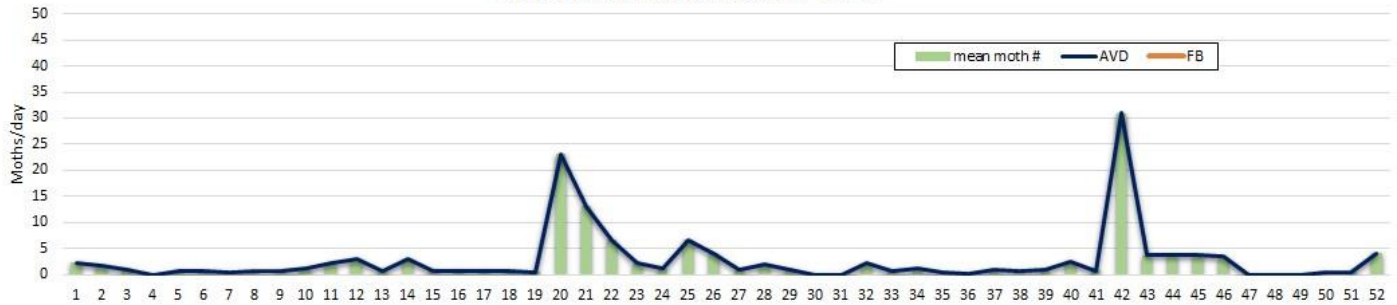
Caledon 2021 Larvae										
Week	Mean temperature				Real temperature				Difference	
	Start	Week	Larvae en	Days	Week	Start	Week	Larvae en		Days
1	04-Jan	5	01-Feb	29	1	04-Jan	4	31-Jan	28	-1
2	11-Jan	6	08-Feb	29	2	11-Jan	5	07-Feb	28	-1
3	19-Jan	7	16-Feb	29	3	19-Jan	7	15-Feb	28	-1
4	26-Jan	8	21-Feb	27	4	26-Jan	8	24-Feb	30	3
6	08-Feb	10	07-Mar	28	6	08-Feb	10	10-Mar	31	3
18	03-May	27	04-Jul	63	18	03-May	29	25-Jul	84	21
21	24-May	34	26-Aug	96	21	24-May	37	16-Sep	116	20
22	01-Jun	36	10-Sep	102	22	01-Jun	38	25-Sep	117	15
23	07-Jun	37	15-Sep	101	23	07-Jun	39	30-Sep	115	14
24	14-Jun	38	22-Sep	101	24	14-Jun	40	09-Oct	118	17
25	21-Jun	39	27-Sep	99	25	21-Jun	41	13-Oct	115	16
40	04-Oct	46	18-Nov	46	40	04-Oct	46	19-Nov	47	1
41	12-Oct	47	24-Nov	44	41	12-Oct	47	26-Nov	46	2
42	18-Oct	48	28-Nov	42	42	18-Oct	48	29-Nov	43	1
43	25-Oct	48	04-Dec	41	43	25-Oct	48	04-Dec	41	0
45	08-Nov	51	19-Dec	42	45	08-Nov				-42

Caledon 2021 New moth peaks										
Week	Mean temperature				Real temperature				Difference	
	Start	Week	New moth	Days	Week	Start	Week	New moth		Days
1	04-Jan	8	24-Feb	52	1	04-Jan	8	26-Feb	54	2
2	11-Jan	9	03-Mar	52	2	11-Jan	9	05-Mar	54	2
3	19-Jan	10	11-Mar	52	3	19-Jan	11	16-Mar	57	5
4	26-Jan	11	18-Mar	52	4	26-Jan	12	25-Mar	59	7
6	08-Feb	14	04-Apr	56	6	08-Feb	14	09-Apr	61	5
18	03-May	42	19-Oct	170	18	03-May	43	31-Oct	182	12
21	24-May	45	07-Nov	169	21	24-May	46	15-Nov	176	7
22	01-Jun	45	13-Nov	166	22	01-Jun	46	20-Nov	172	6
23	07-Jun	46	16-Nov	163	23	07-Jun	47	22-Nov	167	4
24	14-Jun	46	19-Nov	159	24	14-Jun	47	27-Nov	167	8
25	21-Jun	47	22-Nov	155	25	21-Jun	48	30-Nov	163	8
40	04-Oct	52	27-Dec	85	40	04-Oct				-85
41	12-Oct	1	01-Jan	82	41	12-Oct				-82
42	18-Oct	1	04-Jan	79	42	18-Oct				-79
43	25-Oct	1	08-Jan	76	43	25-Oct				-76
45	08-Nov	3	17-Jan	71	45	08-Nov				-71

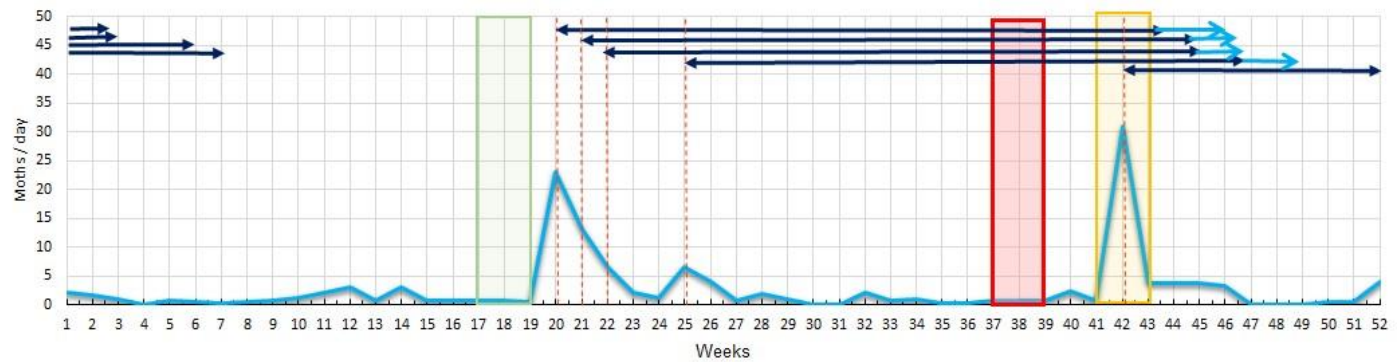
Swellendam moth trap

- First graph indicates the original data received from the farmers
- The second graph indicates the mean number of moths, while the dark blue arrows indicate the life cycles as forecasted by the average mean daily temperatures.
- Third graph indicates the climate data
- Green blocks indicate the mean planting time and the yellow blocks mean harvesting time.
- The red block indicates the critical period for high moth numbers, which could produce harmful offspring
- Table indicate the dates when larvae will be present (left) and when the new moth flights could be happen

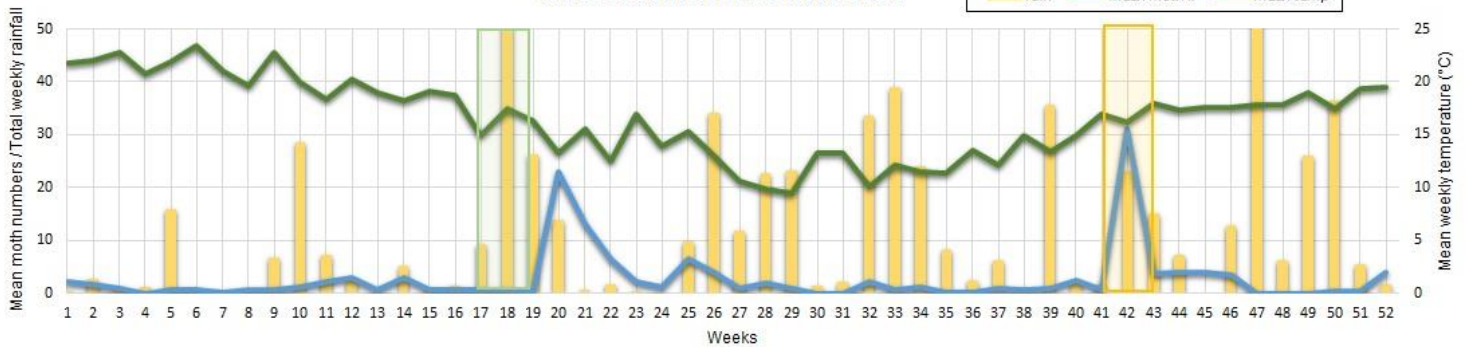
Swellendam moth number 2021



Swellendam : Total (egg -adult) Life cycle



Swellendam climate data 2021



Swellendam 2021 Larvae										
Week	Mean temperature				Real temperature				Difference	
	Start	Week	Larvae enc	Days	Week	Start	Week	Larvae enc		Days
20	18-May	32	11-Aug	86	20	18-May	35	02-Sep	108	22
21	25-May	34	26-Aug	94	21	25-May	36	10-Sep	109	15
22	01-Jun	36	07-Sep	94	22	01-Jun	38	21-Sep	113	19
25	22-Jun	38	24-Sep	95	25	22-Jun	41	12-Oct	113	18
42	23-Oct	48	02-Dec	41	42	23-Oct	49	05-Dec	44	3

Swellendam 2021 New moth peaks										
Week	Mean temperature				Real temperature				Difference	
	Start	Week	New moths	Days	Week	Start	Week	New moths		Days
20	18-May	43	29-Oct	165	20	18-May	45	12-Nov	179	14
21	25-May	44	04-Nov	164	21	25-May	46	15-Nov	175	11
22	01-Jun	45	08-Nov	161	22	01-Jun	46	18-Nov	171	10
25	22-Jun	46	17-Nov	149	25	22-Jun	48	02-Dec	164	15
42	23-Oct	52	01-Jan	71	42	23-Oct	1	09-Jan	79	8