

Oriental Fruit Moth Management Recommendations in Apple, 2017
(based on degree-day (DD) accumulations from biofix and percent egg hatch)

DD-based timing recommendations following table
are based on complete sprays

Date	Frederick		Rappahannock/Madison		Nelson/Albemarle		Patrick/Carroll	
	Biofix on April 3		Biofix on April 3		Biofix on April 4		Biofix on April 1	
	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch
3-Apr	11	0	9	0			31	1
6-Apr	53	2	56	2	56	2	73	3
10-Apr	90	4	87	4	94	4	106	4
13-Apr	155	8	150	8	162	9	166	10
17-Apr	238	23	231	21	253	26	256	27
20-Apr	275	32	279	33	305	40	307	41
24-Apr	338	51	336	50	365	58	369	60
27-Apr	378	63	385	65	418	73	417	73
1-May	498	89	495	89	531	93	517	91
4-May	543	94	546	95	583	97	570	96
8-May	577	96	588	97	629	98	609	97
11-May	617	98	622	98	671	100	667	100
15-May	651	99	668	100	726	100	736	100
18-May	745	100	743	100	809	100	817	100
22-May	833	100	836	100	911	2	920	2
25-May	897	1	883	1	960	3	970	3
29-May	966	3	969	3	1057	6	1067	7
1-Jun	1023	5	1038	5	1133	12	1139	12
6-Jun	1161	15	1154	14	1257	28	1262	29
8-Jun	1192	18	1190	18	1295	34	1304	36
12-Jun	1313	38	1300	35	1405	55	1405	55
15-Jun	1414	57	1392	53	1500	73	1494	72
19-Jun	1552	80	1523	76	1626	89	1612	87

Date	Frederick		Rappahannock/Madison		Nelson/Albemarle		Patrick/Carroll	
	Biofix on April 3		Biofix on April 3		Biofix on April 4		Biofix on April 1	
	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch
22-Jun	1637	90	1618	88	1721	95	1695	94
26-Jun	1745	96	1734	96	1840	99	1806	98
29-Jun	1823	98	1810	98	1913		1871	100
4-Jul	1992		1975		2076		2023	
6-Jul	2054		2037		2140		2087	
10-Jul	2173		2164		2269		2210	
13-Jul	2282		2265		2374		2310	
17-Jul	2411		2402		2513		2437	
20-Jul	2518		2508		2619		2532	
24-Jul	2658		2650		2763		2673	
27-Jul	2743		2735		2856		2766	
31-Jul	2842		2841		2966		2874	
3-Aug	2939		2935		3058		2956	
7-Aug	3053		3042		3169		3062	
10-Aug	3131		3121		3251		3142	

Estimated percent egg hatch based on accumulated DD from biofix (base temperature of 45°F; Penn State OFM model). SkyBit subscriptions for Rockingham, Rappahannock/Madison, Nelson/Albermarle, and Patrick/Carroll counties are supported by the Virginia Apple Research Program (VARP).

Pink Cells

Consider 1st brood control in the prebloom through bloom period in apple blocks with a recent history of OFM problems or if captures in pheromone traps exceed the prebloom threshold of 30 moths/trap/week. Insecticides applied at pink primarily target adults but may have some residual activity against larvae.

Suggested insecticides and mating disruption products : Checkmate-OFM sprayable pheromone can be applied once per generation (about every 4 weeks). Apply at or before biofix for 1st brood control. Hand-placed pheromone dispensers for OFM mating disruption can be deployed just before or at biofix bloom and will provide different lengths of protection, depending upon the formulation used (see labels). Formulations for simultaneous management of OFM and CM are also available.

Blue Cells

Prepare for petal fall spray to control 1st brood larvae. Optimal timing is at early petal fall.

Suggested insecticides : Assail or Calypso (250 - 275 DD; may occur before petal fall in some years and therefore not options for this use); Exirel, Imidan, Lannate, Minecto Pro (350 - 375 DD).

Orange Cells

Prepare to control 2nd brood larvae. The first spray for 2nd brood in apple is warranted only if the captures in pheromone traps exceed the threshold of 10 moths/trap/week. This recommended threshold applies to management decisions for OFM from 2nd brood onward. Otherwise, sprays can be applied to target the middle of 2nd brood egg hatch.

Suggested insecticides and mating disruption products : Rimon (1000 - 1050 DD, then at 1300 - 1350 DD); Assail, Belay, Calypso or Intrepid (1050-1100 DD, then at 1350 - 1400 DD); Altacor, Besiege, Belt, Delegate, Exirel, Imidan, Lannate, Madex HP, pyrethroids, or Voliam Flexi (1150 - 1200 DD, then at 1450 - 1500 DD). The suggestion of pyrethroids or combination products containing a pyrethroid in the post-bloom is based on the threat from BMSB. Their use may flare secondary pests. Some of these products will not control other key pests.

Hand-placed dispensers for OFM mating disruption should be deployed before flight begins. Different formulations will provide different lengths of protection (see labels). Checkmate-OFM sprayable pheromone can be applied once per generation (about every 4 weeks), just before flight begins.

Purple Cells

Prepare to control 3rd brood larvae. From this point forward, the model is not used to predict percent OFM egg hatch in apple. These timing recommendations are based on the best information currently available and management decisions should be based on whether trap thresholds are being exceeded.

Suggested insecticides and mating disruption products : Rimon (2300 - 2350 DD, then at 2750 - 2850 DD); Assail, Belay, Calypso or Intrepid (2350 - 2400 DD, then at 2800 - 2900 DD); Altacor, Besiege, Belt, Delegate, Exirel, Imidan, Lannate, Madex HP, pyrethroids, or Voliam Flexi (2450 - 2500 DD, then at 2900 - 3000 DD). The suggestion of pyrethroids or combination products containing pyrethroids in the post-bloom period is based on the threat from brown marmorated stink bug. Their use may flare secondary pests. Some of these products will not control other key pests.

Checkmate-OFM sprayable pheromone can be applied once per generation (about every 4 weeks), just prior to the onset of moth flight.

Depending on variety, preharvest intervals now become a consideration for product selection.

Green Cells

Prepare to control 4th brood larvae. This is often one of the largest broods of the season and can cause significant damage through harvest. If captures in pheromone traps exceed the threshold of 10 moths/trap/week, apply a spray within 7 - 10 days. Maintain coverage with complete or alternate-row-middle sprays as long as captures exceed threshold.

Checkmate-OFM sprayable pheromone applied in late August will provide protection through 4th generation moth flight.

Give careful consideration to both restricted entry and preharvest intervals.

