Codling Moth Management Recommendations, 2018

(based on degree-day (DD) accumulations from biofix and percent egg hatch)

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

	Frederick		Rockingham		Rappahannock/Madison		Nelson/Albemarle		Patrick/Carroll	
	3-May		Biofix TBD		3-May		Biofix TBD		Biofix TBD	
Date	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch
7-May	75	0			81	0				
10-May	125	0			121	0				
14-May	206	0			206	0				
17-May	278	6			266	5				
21-May	338	16			328	14				
24-May	400	30			393	28				
29-May	521	58			507	55				
31-May	573	68			557	65				
4-Jun	648	81			636	79				
7-Jun	694	85			680	84				
11-Jun	772	91			758	90				
14-Jun	832	99			822	94				
18-Jun	930	98			917	97				
21-Jun	1014	100			1000	100				
25-Jun	1096	100			1082	100				
28-Jun	1166				1150					
2-Jul	1291				1265					
5-Jul	1383				1359					
9-Jul	1470				1444					
12-Jul	1557				1522					
16-Jul	1637				1625					
19-Jul	1738				1696					
23-Jul	1827				1781					
26-Jul	1904				1858					

Date	Frederick		Rockingham		Rappahannock/Madison		Nelson/Albemarle		Patrick/Carroll	
	3-May		Biofix TBD		3-May		Biofix TBD		Biofix TBD	
	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch	DD	% egg hatch
30-Jul	1997				1960					
2-Aug	2072				2037					
7-Aug	2206				2172					
9-Aug	2263				2229					

Estimated percent egg hatch for 1st brood larvae based on accumulated DD from biofix (base temperature = 50°F; Michigan State model). See note below for 2nd brood management timing.

Pink Cells

Mating disruption for CM can be initiated during bloom using hand-placed pheromone dispensers and will provide different lengths of protection, depending upon formulation used (see labels). Formulations for simultaneous control of CM and OFM are also available.

Blue Cells

Prepare to control 1st brood CM larvae. Sprays targeting CM larvae are warranted if moth captures in pheromone traps exceed the threshold of 5 moths/trap/week. If captures do not exceed this threshold leading up to the first spray against CM, the application can be delayed to target the middle of 1st brood egg hatch.

Suggested insecticides **:** Rimon (50 - 150 DD, then at 400 DD); Assail, Belay, or Esteem (150 DD, then at 450 DD); Altacor, Belt, CM virus, Delegate, Exirel, Imidan, Lannate, Minecto Pro, or Voliam Flexi (250 DD, then at 550 DD). Some of these products will not control other key pests.

Orange Cells

Prepare to control 2nd brood CM larvae if captures exceed 5 moths/trap/week. Recent research at NSCU by Dr. Jim Walgenbach has indicated that the predictions of the Michigan State CM model were not aligning well with the onset of 2nd generation CM flight in our region. His findings led to the conclusion that, in our region, optimal management of 2nd brood CM larvae should begin 200 DD later than has been recommended historically by the Michigan State model. Consequently, starting in 2018, we have adjusted our timing recommendations for 2nd brood CM, as indicated below. Please be advised that this change does not enable prediction of percentage egg hatch of 2nd brood larvae. Rather, as noted previously, management should be based on whether or not average weekly captures in pheromone traps exceed the 5 moth/trap threshold.

Suggested insecticides **:** Rimon (1250 - 1350 DD, then at 1650 DD); Assail, Belay, or Esteem (1350 DD, then at 1650 - 1700 DD); Altacor, Besiege, Belt, CM virus, Delegate, Exirel, Imidan, Lannate, pyrethroids, or Voliam Flexi (1450 DD, then at 1750 - 1800 DD). Suggestion of pyrethroids or combination products containing a pyrethroid post-bloom 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.

Purple Cells

Indicates onset of third CM flight. Third brood larvae often do not complete development the to moth stage, but can cause significant injury late in the season. Use a trap threshold of >5 moths/trap/week to initiate control within 5-7 days.

Note: Preharvest intervals now become an important consideration for some varieties.