

# APPLE PEST GUIDE

Based on data from the Peach Ridge weather station near Sparta, Michigan

Approximate Date	April						May						June				July				August				September			October		
	2	8	12	21	24	29	2	9	12	14	20	25	31	8	15	22	29	5	13	20	28	5	13	20	28	4	13	22	3	10
DD Base 42 F, March 1st Start	90	101	127	189	205	242	284	367	395	422	511	616	749	899	1061	1226	1405	1564	1759	1960	2167	239	2552	2735	2916	3091	3261	3417	3545	3656
DD Base 50 F, March 1st Start	36	41	51	82	90	109	129	174	190	205	254	318	401	498	607	719	842	954	1094	1239	1390	1526	1663	1791	1917	2037	2153	2256	2345	2396
DD Base 57.2, April 18th Start *	-	-	-	5	8	15	24	48	56	61	90	122	177	233	295	374	449	515	616	708	808	900	990	1069	1148	1223	1290	1347	1393	1418
<b>Over-wintering Stage</b>	<b>Growth Stage (McIntosh)</b>																													
	Dormant	Silver Tip	1st Green	1/4" Green	1/2" Green	Tight Cluster	Open Cluster	Pink	King Bloom	Full Bloom	Petal Fall	1st Cover		2nd Cover	3rd Cover		4th Cover	5th Cover		6th Cover	7th Cover		8th Cover	9th Cover						
Egg	Aphids	Aphid				1st	Peak			Give birth			Monitor Summer Populations																	
Pupa	Apple maggot	Adult															1st				Peak								End	
Adult	Black stem borer	Adult				1st	Monitor Female Adult Flight																							
Adult	Brown marmorated stink bug	Adult	Overwintered adults break diapause, approx. Apr 18th										Egg Laying on preferred (non-apple) hosts expected in late May				Begin monitoring after July 4th; damage from exploratory feeding may occur during this period				Ttrap catches will start to increase by mid-August; summer generation adults develop by late August; feeding damage can occur through harvest									
		Nymph											1st nymphs																	
Larva	Codling moth	Adult								1st			Peak						1st		Peak				Possible 3rd generation					
		Hatch									1st				Peak				1st			Peak			Larvae overwinter					
Larva	Dogwood borer	Adult													1st				Peak		End									
	European corn borer	Adult	Early generations not a pest in apples																		1st		Peak							
		Hatch																							1st					
Egg	European red mite	Adult									1st			1st			Monitor Summer Populations													
		Hatch	Apply Oil to Control Eggs						1st		Peak		End																	
Egg & Pupa	Green fruitworm	Adult	1st								End																			
		Hatch				1st		Peak		End							Larvae pupates													
Larva	Obliquebanded leafroller	Adult											1st		Peak			End				1st				Peak				
		Hatch								Larvae active	Larvae/Pupae**				1st				Peak		End		1st			1st			Larvae overwinter	
Larva	Oriental fruitmoth	Adult				1st					Peak			End	1st						End	1st				Peak				
		Hatch								1st				Peak	End		1st				Peak	End			1st		Peak			
Adult	Plum curculio	Adult								1st	Peak				End						Adult feeding damage									
Egg	Red banded leafroller	Adult			1st			Peak			End				1st				Peak			End	1st			Peak				
		Hatch							1st		Peak		End						1st		Peak	End			1st	Peak				
Scale	San Jose scale	Adult	Apply Oil to Control scales									1st	Peak	End				1st	Peak			End				1st	Peak		End	
		Crawlers										1st	Peak				End		1st		Peak	End				1st				
Pupa	Spotted tentiform leafminer	Adult		1st				Peak					End	1st	Peak			End	1st		Peak									
		Hatch					1st				Peak		End		1st			Peak			End	1st			Peak					
		Tissue								1st			Peak	End				1st	Peak				1st			Peak				
Adult	Tarnished plantbug	Adult								1st				Peak																
Egg	White apple leafhopper	Adult												1st			Peak		End						1st	Peak				
		Hatch							1st		Peak				End							1st	Peak				End			
Apple scab	Primary Scab										Secondary scab - continue cover sprays if present																			
Fire blight	Overwintering cankers						Blossom blight						Trauma blight																	
Powdery mildew	Primary infections begin										Continued infections if environmental conditions are ideal																			

\* Overwintering BMSB adults are expected to come out of diapause when day length reaches 13.5 hours, which is April 18th for Sparta, Michigan.

\*\* Monitor OBLR larval infestations of shoots to determine the need for managing the summer generation.

**PURPOSE:** This table is meant to serve as a season-long guide for when various life stages of key pests are expected and the best time to target management strategies based on an AVERAGE year. The dates, growth stages and pest development were all correlated with the Peach Ridge weather station near Sparta, Michigan maintained by MSU Enviroweather. Degree day calculations were determined using the Baskerville-Emin method based on averages of 2009-2018. Your actual situation during any given year may be different. The blue areas indicate principle monitoring periods, the yellow areas indicate possible control periods, and the red areas indicate critical control periods.

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