APPLE PEST GUIDE

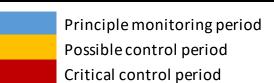
Based on data from the Peach Ridge weather station near Sparta, Michigan

										Dasca	on da			acii ilio	ige wee	itilei 3t	ation ii		arta, ivi	licingan						_						
	Approximate Date		April						May							Jui				_	July		1			ugust		September				
		_	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, Marc			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, Marc			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 18	8th 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
Over-					1st	1/4"	1/2"	Tight	Open		King	Full			1st		2nd		3rd		4th		5th		6th		7th		8th		9th	
wintering	Growth Stage (M	McIntosh)	Dormant	Silver Tip (ip Green	Green		Cluster	Cluster	Pink	Bloom	Bloom	Petal Fall		Cover		Cover		Cover		Cover		Cover		Cover		Cover		Cover		Cover	
Stage																																
Egg	Aphids	Aphid		1st Peak Give birth Monitor Summer Populations																												
Pupa	Apple maggot	Adult																		1st				Pe	eak							End
	Black stem borer						1st	Monitor	Female A	dult Fligh	nt																					
raare	Brown marmorated stink bug	Adult Adult													Egg Lavii	ing on preferred (non-apple) hosts																
						Overwir	itered adı	ults break	k diapause, approx. Apr 18th							ed in late May				Begin monitoring after July 4th;				Ttrap catches will start to increase					by mid-August; summer generation adult			
Adult													1.4							damage from exploratory feeding									ng damage can occur through harvest			
		Nymph													1st nym	hs				may	may occur during this perio											
Larva	Codling moth	Adult											1st			Peak						1st		Peak					Possibl	e 3rd gen	eration	
		Hatch													1st			Peak					1st			Peak			Larvae o			
Larva	Dogwood borer	Adult																1	st			Peak		End								
	European corn borer	Adult								Early	/ generati	ons not a	pest in a	pples											1st		Peak					
		Hatch																										1st				
Egg	European red mite	Adult												1st			1st			Monitor	r Summer	Populati	ons									
		Hatch			Apply O	il to Cont	rol Eggs			1st		Peak		End																		
Egg &		Adult	1st										End																			
Pupa	Green fruitworm Hat							1st		Peak			End							Larvae pupates												
•	Obliquebanded	Adult														1st			Peak		End					1st			Peak			
Larva	leafroller	Hatch										Larvae	active	Larvae/l	Pupae**				1st			Peak		Er	nd		1st		Larvae o	verwinte	r	
Larva	Oriental fruitmoth	Adult						1st						Peak			End	1st							End	1st	_ , ,		Peak			
		Hatch											1st	. can			Peak	250	End	1st				Peak	Lite	End		1st	, can		Peak	
Adult	Plum curculio	Adult							Peak			End							Δdult	feeding d	amage											
	Red banded leafroller	Adult				1st				Peak			130	End	1 Car			LIIG	1st			Peak			End	recurring a	1st		Peak			
Egg		r Hatch				130				1 Cak	1st			Peak		End			150			1st		Peak	End	End	130	1st	1 Cak	Peak		
Scale	San Jose scale		Annly O	il to Con	itrol scales						250	1st		Peak		End				1st		Peak		End		2a		1st		Peak		End
		Crawlers			ici or scares							150		1 Cak	1st	LITO	Peak			End		1 Cak	1st	LITO	Peak		End	130		1st		Liid
	Spotted tentiform leafminer	Adult			1st					Peak					130	End	1st		Peak	End		End	1st		r care	Peak	End			130		
I Piina		Hatch			130				1st	- r cak				Peak		End	130		1st			Peak	131	End		1st		Peak				
		Tissue							130					1st		Peak		End			1st	. car	Peak	Lila			1st	, can	Peak			
Adult	Tarnished plantbug	Adult										1st		-50		Peak		2.10			130		. can				130		. can			
Addit	White apple	Adult										131				1 Cak	1st			Peak			End					1st		Peak		
Egg	leafhopper	Hatch									1st				Peak		131	End		reak			LIIU		1st		Peak	130		reak	End	
Annlassah		Hatti			Primary	Scab.					131				1 Cak				ry scah	continue	COVOR CON	ays if pres	cont		131		1 Cak				LIIU	
Apple scab				Ovor							Placcare	hlight				Trauma		Seconda	ry scab - (continue	cover spr	ays ii pres	SCIIL									
Fire blight Dowdory mildow				Over	wintering o	Cankers		Drimory	Blossom blight vinfections begin Con							Trauma blight ued infections if environmental conditions are ideal																
Powdery mildew								Primary	mection	s negm					Continu	eu miecti	ons ir env	ni onmen	tai condi	tions are	iuedi											

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

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