

## Massachusetts Vegetable Pest Scouting Calendar

This calendar is designed to help growers track the important pest prevention, scouting, and monitoring actions for vegetable fields in Massachusetts. It focuses on the most common and damaging invertebrate pests in the region but does not cover all potential pests. The suggested timing for management actions is based on when pests are typically first observed. However, pest occurrence varies annually and may take place earlier or later than expected due to changes in weather, temperatures, or the arrival of new invasive species. Pest occurrence also varies geographically across different parts of the state.

Use the “Notes” column to jot down observations or management adjustments specific to your farm. These notes can help inform your pest management decisions in future seasons.

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For weekly updates and pest alerts during the growing season, subscribe to the [Vegetable Notes newsletter](#). For more details on a particular pest, see the corresponding [UMass Extension fact sheet](#) (accessible by clicking on the pest name if using this calendar electronically). Reference photographs are included at the end of this document. For more details on pest identification, see the [Northeast Vegetable and Strawberry Pest Identification Guide](#).

For up-to-date pest management guidelines, see the [New England Vegetable Management Guide](#).

This calendar is also available as a Google calendar found [here](#).



# Pest Scouting Calendar

## APRIL

	Crop	Pest	Actions	Notes
Week 1	Brassicas	Flea beetle	Prevention: Cover brassicas for adult flea beetle.	
Week 2	-	-	-	
Week 3	Alliums	Allium leafminer	Prevention: Cover alliums for adult leafminer.	
	Brassicas	Flea beetle	Scouting: Scout for overwintered adults in crop (Fig 1). <i>Treatment threshold: <b>Plants &lt;12"</b>: avg 1 FB/plant OR damage &gt;10% of leaf</i>	
Week 4	Cucurbits	Squash vine borer	Prevention: Cover cucurbits for adult squash vine borer.	

# Pest Scouting Calendar

## MAY

	Crop	Pest	Actions	Notes
Week 1	Alliums	Allium leafminer	<b>Scouting:</b> Scout for oviposition scars along foliage (Fig 2), and larvae and pupae within leaves.	
		Onion maggot	<b>Scouting:</b> Use sticky cards to monitor adult emergence (Fig 3). Scout for eggs at base of plants.	
	Brassicas	Cabbage root maggot	<b>Scouting:</b> Scout throughout May. Set up sticky cards to monitor adult emergence (Fig 3). Scout for eggs at base of plants (Fig 4). <i>Threshold: 1st eggs, 1 egg/stem, 10% with eggs</i>	
	Chenopods	Leafminer	<b>Prevention:</b> Cover beets and spinach for adult leafminer.	
	Solanaceous	Flea beetle	<b>Prevention:</b> Cover solanaceous crops or apply Surround.	
Week 2	Various	Seedcorn maggot	<b>Scouting:</b> Set up sticky cards to monitor adult emergence. Scout for eggs at base of plants.	
	Cucurbits	Striped cucumber beetle	<b>Scouting:</b> Scout for overwintered adults in crops (Fig 5). <i>Treatment threshold: Before 5-leaf stage: Cucumber, summer squash (1/plant); winter squash, pumpkin (2/plant)</i>	
	Sweet corn	European corn borer	<b>Monitoring:</b> Set up pheromone traps. <i>Treatment threshold: <b>Pre-tassel to green tassel:</b> &gt;15% have 1+ caterpillars or show fresh feeding damage. <b>Silking:</b> Spray weekly if corn is &gt;1 week from harvest and trap captures are &gt;12/week.</i>	
Corn earworm		<b>Monitoring:</b> Set up pheromone traps. <i>Treatment threshold: See fact sheet for spray intervals based on trap capture rates.</i>		
Week 3	Brassicas	Imported cabbageworm	<b>Scouting:</b> Scout for caterpillars and eggs on undersides of outer leaves (Fig 6). <i>Treatment threshold: <b>Before head formation:</b> 35% w 1+ caterpillars. <b>Leaf greens or after head formation:</b> 15% w 1+ caterpillars.</i>	
		Diamondback moth		
	Chenopods	Leafminer	<b>Scouting:</b> Set up sticky cards to monitor adult emergence. Scout for eggs on undersides of leaves (Fig 7). Sprays should target hatching eggs.	
	Solanaceous	Flea beetle	<b>Scouting:</b> Scout for 1st generation adults in crop (Fig 8). <i>Treatment threshold (eggplant): <b>new transplants</b> (2/plant); <b>3-6" tall</b> (4/plant); <b>&gt;6" tall</b> (8/plant)</i>	
Week 4	Various	Potato leafhopper	<b>Scouting:</b> Scout for stationary nymphs on undersides of leaves (Fig 9). Brush plants to scout for flying adults. <i>Treatment threshold (potato): 1 adult/plant or 1 nymph/3 leaves</i>	
	Alliums	Onion thrips	<b>Scouting:</b> Scout for adults and nymphs in base of central leaves (Fig 10). <i>Treatment threshold: Varies with plant stage and efficacy of pesticide to be used. 1-3 thrips/leaf or 30/plant.</i>	

# Pest Scouting Calendar

## JUNE

	Crop	Pest	Actions	Notes
Week 1	Brassicas	Cabbage aphid	<b>Scouting:</b> Scout for aphids on undersides of leaves (Fig 11). <i>Treatment threshold: &gt;10% with aphids</i>	
	Cucurbits	Squash vine borer	<b>Monitoring:</b> Set up pheromone traps for adult SVB (Fig 12).	
	Potato, eggplant	Colorado potato beetle	<b>Scouting:</b> Scout for overwintered adults in crop, 1st gen eggs on undersides of leaves (Fig 13). <i>Treatment threshold: SL = small larvae; LL = large larvae. Eggplant: &lt;6" (2SL or 1LL/plant); &gt;6" (4SL or 2LL/plant). Potato: 0.5 adults, 4SL, or 1.5 LL/plant or /stalk</i>	
	Sweet Corn	European corn borer	<b>Scouting:</b> Scout for damage in crop (Fig 14).	
		Sap beetle	<b>Scouting:</b> Scout for adults and larvae in ear tips (Fig 15). <i>Treatment threshold: 10% infestation</i>	
		Western bean cutworm	<b>Scouting:</b> Scout for caterpillars in silk and eggs in uppermost 3-4 leaves (Fig 16).	
Week 2	Cucurbits	Squash bug	<b>Scouting:</b> Scout for adults on crop and egg masses on undersides of leaves (Fig 17). <i>Treatment threshold: 1 egg mass per plant. Time sprays for young nymphs which are easiest to control. Egg laying occurs for several weeks and nymphs hatch from eggs during mid-July.</i>	
Week 3	-	-	-	
Week 4	Beans	Mexican bean beetle	<b>Scouting:</b> Scout for adults, eggs, and larvae on undersides of leaves (Fig 18). <b>Prevention:</b> If MBB has been a problem in the past, plan to release <i>Pediobius</i> to control 1st generation. Call in order once eggs are observed.	

# Pest Scouting Calendar

## JULY

	Crop	Pest	Actions	Notes
Week 1	Cucurbits	Squash vine borer	<b>Scouting:</b> Scout for eggs and ‘sawdust’ from larvae tunneling at base of plant. <i>Treatment threshold: 5 moths per week for susceptible crops</i>	
	Pepper	Pepper maggot	<b>Scouting:</b> Set up sticky cards for monitoring. Scout for oviposition scars on fruit (Fig 19).	
	Potato, eggplant	Colorado potato beetle	<b>Scouting:</b> Scout for 2 <sup>nd</sup> generation larvae. <i>Treatment threshold: SL = small larvae; LL = large larvae. &lt;6” (2SL or 1LL/plant); &gt;6” (4SL or 2LL/plant)</i>	
	Sweet corn	Corn earworm	<b>Scouting:</b> Scout for caterpillars in ears.	
	Various	Scarab beetles	<b>Scouting:</b> Scout for adult beetles.	
Week 2	Sweet corn	Fall armyworm	<b>Monitoring:</b> Set up pheromone traps. <b>Scouting:</b> Scout for caterpillars on crop (Fig 22). <i>Treatment threshold: &gt;15% plants with 1+ caterpillars. In emerging tassels, combine counts for ECB and FAW.</i>	
Week 3	Brassicas	Cabbage looper	<b>Scouting:</b> Scout for eggs and caterpillars on undersides of outer leaves (Fig 20). <i>Treatment threshold: <b>Leaf greens or after head formation:</b> 15% w 1+ caterpillars. <b>Before head formation:</b> 35% w 1+ caterpillars.</i>	
	Solanaceous	Flea beetle	<b>Scouting:</b> Scout for 2nd generation adults in crop (Fig 8).	
Week 4	Tomato	Hornworms	<b>Scouting:</b> Scout for caterpillars and damage in crop (Fig 21).	

# Pest Scouting Calendar

## AUGUST

	Crop	Pest	Actions	Notes
Week 1	Brassicas	Cabbage aphid	<b>Scouting:</b> Scout for aphids on undersides of leaves (Fig 11). <i>Treatment threshold: &gt;10% with aphids</i>	
	Sweet corn	Fall armyworm	<b>Scouting:</b> Scout for caterpillars (Fig 22).	
Week 2	Various	Hawaiian beet webworm	<b>Prevention:</b> Cover chenopods & brassicas	
Week 3	Brassicas	Cross-striped cabbageworm	<b>Scouting:</b> Scout for eggs and caterpillars on undersides of outer leaves (Fig 23). <i>Treatment threshold: <b>Leaf greens or after head formation:</b> 15% w 1+ caterpillars. <b>Before head formation:</b> 35% w 1+ caterpillars.</i>	
Week 4	Alliums	Allium leafminer	<b>Prevention:</b> Cover leeks for 2 <sup>nd</sup> generation adults, especially in fields which were infested earlier in the season	

# Pest Scouting Calendar

## SEPTEMBER

	Crop	Pest	Actions	Notes
Week 1	Various	Hawaiian beet webworm	<b>Scouting:</b> Scout for damage and larvae on lower leaves (Fig 24).	
Week 2	Alliums	Allium leafminer	<b>Scouting:</b> Scout leeks for 2 <sup>nd</sup> generation oviposition scars in lines on foliage (Fig 2), and larvae and pupae within leaves. <i>Treatment threshold: Two sprays 2-4 weeks after scars observed</i>	
Week 3				
Week 4				

# Pest Scouting Calendar

## OCTOBER

	Crop	Pest	Actions	Notes
Week 1				
Week 2				
Week 3				
Week 4				



# Pest Scouting Calendar

## Reference Images (1)



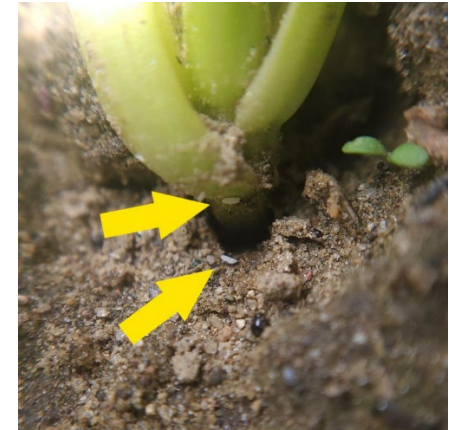
**Fig 1.** Adult brassica flea beetles.  
*Photo: M. Ng*



**Fig 2.** Allium leafminer oviposition scars.  
*Photo: G. Higgins*



**Fig 3.** Adult onion and cabbage root maggots on sticky trap.  
*Photo: S. Schuefele*



**Fig 4.** Cabbage root maggot eggs at base of plant  
*Photo: A. Shokoohi*



**Fig 5.** Adult striped cucumber beetles.  
*Photo: UMass Extension*



**Fig 6.** Imported cabbageworm (top), diamondback moth (bottom).  
*Photo: UMass Extension*



**Fig 7.** Beet leafminer eggs on underside of beet leaf.  
*Photo: UMass Extension*



**Fig 8.** Adult solanaceous flea beetle.  
*Photo: UMass Extension*

# Pest Scouting Calendar

## Reference Images (2)



**Fig 9.** Potato leafhopper nymphs.

*Photo: Michigan State University*



**Fig 10.** Onion thrips in base of central leaves.

*Photo: UMass Extension*



**Fig 11.** Cabbage aphid colony.

*Photo: UMass Extension*



**Fig 12.** Adult squash vine borer.

*Photo: A. Eaton*



**Fig 13.** Colorado potato beetle adult and eggs.

*Photo: UMass Extension*



**Fig 14.** European corn borer feeding in corn cob.

*Photo: OSU Extension*



**Fig 15.** Sap beetle adults and larvae.

*Photo: J. Obermeyer, Purdue*



**Fig 16.** Western bean cutworm caterpillars in corn silk.

*Photo: Cornell IPM*

# Pest Scouting Calendar

## Reference Images (3)



**Fig 17.** Squash bug adult and eggs.

*Photo: W. Cranshaw, CSU*



**Fig 18.** Life stages of Mexican bean beetle.

*Photo: Clemson University*



**Fig 19.** Pepper maggot oviposition scar.

*Photo: G. Higgins*



**Fig 20.** Cabbage looper larva.

*Photo: J. Boucher*



**Fig 21.** Tobacco hornworm caterpillar

*Photo: G. Higgins*



**Fig 22.** Fall armyworm larva.

*Photo: R. Hazzard*



**Fig 23.** Cross-striped cabbageworm.

*Photo: T. Kuhar*



**Fig 24.** Hawaiian beet webworm.

*Photo: butterfliesandmoths.org*