

Table 3. Biologicals, essential oils, etc.

Active Ingredient	Trade Name	Aphids	Armyworm	Beet leafhopper	Blister beetle	Carion beetle	Cutworm	Flea beetle	False celyery leaflier	Garden symphylan	Grasshopper	Leafminer	Looper	Lygus bug	Saltmarsh caterpillar	Spider mite	Stink bug	Sugar beet crown borer	Sugar beet root aphid	Sugar beet root maggot (larvae)	Sugar beet root maggot (adults)	Webworm	White grub	Wireworm	Insecticide Group	Signal Word	REI	PHI (d)	OMRI	
azadirachtin	Aza-Direct (Gowan), others	X	X	X			X	X	X			X	X	X	X	X	X								UN	C	4 h		x	
azadirachtin	Azatin-O (OHP), others	X	X	X	X		X	X	X		X	X	X	X	X		X					X		X	UN	C	4 h		x	
<i>Bacillus thuringiensis aizawai</i>	Agree WG (Certis), others		X						X				X												11A	C	4 h	0	x	
<i>Bacillus thuringiensis aizawai</i>	XenTari (Valent), others		X				X	X					X		X							X			11A	C	4 h	0	x	
<i>Bacillus thuringiensis kurstaki</i>	BioBit HP (Valent), others		X				X	X					X		X							X			11A	C	4 h	0	x	
<i>Bacillus thuringiensis kurstaki/Bacillus thuringiensis aizawai</i>	Crymax (Certis)		X				X	X					X		X							X			11A	C	4 h	0		
<i>Beauveria bassiana</i>	BotaniGard ES (Certis), Mycotrol ESO and WPO (Certis), others	X	X	X				X			X		X	X		X	X		X				X	X	UNF	C	4 h	0	x	
<i>Burkholderia</i> spp	Venerate CG (Marrone Bio)	X	X	X			X	X					X	X	X	X	X		X	X		X	X	X	UNB	C	4 h	0	x	
<i>Burkholderia</i> spp	Venerate XC (Marrone Bio)	X	X					X					X												UNB	C	4 h		x	
canola oil/garlic oil/capsicum oleoresin extract	Captiva Prime (Gowan)		X													X										C	4 h	0	x	
<i>Chromobacterium subtsugae</i>	Grandevo CG and Grandevo WDG (Marrone Bio), others	X	X					X					X				(X)									C	4 h	0	x	
garlic oil	Garlic Barrier AG+ (Garlic Research Labs)		(X)	(X)					(X)	(X)	(X)	(X)				(X)											C	4 h		x
GS-omega/kappa-Htx-Hv1a	Spear LEP (Vestaron)		X				X	X					X		X						X				32	C	4 h	0		
kaolin	Surround WP (NovaSource), others			(X)				(X)	(X)		(X)																C	4 h		x
mineral oil	JMS Stylet-Oil (JMS), Purespray green (Intelligro), others	X	X	X				X			X					X											C	4 h		x
neem oil	Ecoworks EC (Ecostadt), others	X	X				X	X	X			X	X	X		X	X										C	4 h		x
potassium salts of fatty acids	M-Pede (Gowan), others	X		X								X				X										W	12 h	0	x	
potassium silicate	Sil-Matrix LC (Certis)	X														X											C	4 h	0	x
pyrethrins	Tersus (MGK), various others	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X					X			3A	C	12 h	0		
pyrethrins/azadirachtin	Azera, Azera Pro (Valent), others	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X					X		X	3A	W	12 h		x	
pyrethrins/ <i>Beauveria bassiana</i>	BotaniGard MAXX (Certis)	X	X	X			X	X	X		X		X	X		X	X					X	X		3A	W	12 h	after spray has dried		
pyrethrins/piperonyl butoxide	Evergreen Pro 60-6 (MGK), others	X	X	X	X		X	X		X			X	X			X					X			3A	C	12 h	after spray has dried		
sodium tetraborohydrate decahydrate	Prev-Am (Oro Agri)	X	X	X									X												8D	W	24 h			
soybean oil / garlic oil / capsicum oleoresin extract	Captiva (Gowan)		X													X										C	4 h	0	x	
spinosad	Entrust and Entrust SC (Corteva), others		X					X			X	X													5	C	4 h	3	x	
<i>Spodoptera exigua</i> multinucleopolyhedrovirus (SeMNPV)	Spexit (Andermatt Biocontrol)		X																							C	4 h	0	x	
sulfur	various															X									UN	C	24 h	0	x	

All trade names may not be listed. The products that are listed are not in order of efficacy or preference. Always refer to the specific product label before making recommendations and/or applications.

X = labelled for control; (X) = labelled for suppression; * = range of number of days depends on application method.

Abbreviations: C = Caution; W = Warning; D = Danger. PHI = Pre-harvest interval. REI = Restricted entry interval.