

## FIELD CROP INSECTICIDE PRODUCTS - QUICK REFERENCE CHARTS

The following charts are for use as a quick reference to locate possible insecticides available for use against insect pests in field crops. For complete information, restrictions, and precautions, **ALWAYS READ THE PRODUCT LABEL. Crops are listed alphabetically.**

### BARLEY

Insecticide -Barley	Aphids	Armyworm	Barley Thrips	Wireworm	Grasshopper	Cereal Leaf Beetle
<b>beta-cyfluthrin</b> - Baythroid XL	●	●			●	●
<b>diflubenzuron</b> - Dimilin					●	●
<b>dimethoate</b> - Digon 400, Dimethoate 400					●	
<b>disulfoton</b> - Di-syston	●					
<b>fenpropathrin</b> - Danitol (pending 2008)	●		●			●
<b>imidacloprid</b> - Attendant AW	●			●	●	
<b>imidacloprid</b> - Dyna-Shield Imidacloprid 5 (ST)	●			●	●	
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )	●			●		
<b>imidacloprid</b> - Senator 600 ( <i>seed treatment</i> )	●			●	●	
<b>lambda-cyhalothrin</b> - Kaiso 24WG	●	●			●	●
<b>lambda-cyhalothrin</b> - Warrior II	●	●			●	●
<b>lambda-cyhalothrin</b> - Grizzly Z	●	●			●	●
<b>malathion</b> - Malathion 57EC	●	●			●	●
<b>malathion</b> - Malathion ULV					●	●
<b>methomyl</b> - Lannate LV	●	●				●
<b>methyl parathion</b> - Penncap-M	●	●			●	
<b>methyl parathion</b>	●	●				
<b>spinosad</b> - Success		●				●
<b>spinetoram</b> - Radiant SC		●			●	●

### BEANS, DRY

Insecticide - Dry Beans	Leafhoppers	Aphids	Armyworms	Bean Leaf Beetle	Cutworms	Green Cloverworm	Grasshopper	Seed Corn Maggot	Wireworm
<b>acephate</b> - Acephate E 75 WP, Orthene 75S, Orthene 97, Address 75S	●	●	●	●	●	●	●		
<b>Bacillus thuringiensis</b> - DiPel DF			●			●			
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●	●	●	●	●		
<b>bifenthrin</b> - Capture LFR (liquid fertilizer ready)								●	
<b>bifenthrin</b> - Capture 2 EC, Fanfare 2 EC	●	●	●	●	●	●	●		
<b>carbaryl</b> - Sevin			●	●	●		●		
<b>chlorpyrifos</b> - Lorsban 30 F, Lorsban 50-SL								●	
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	●	●	●	●		
<b>dimethoate</b> - Digon 400, Dimethoate 400	●	●							

	Leafhoppers	Aphids	Armyworms	Bean Leaf Beetle	Cutworms	Green Cloverworm	Grasshopper	Seed Corn Maggot	Wireworm
<b>Insecticide - Dry Beans</b>									
<b>disulfoton</b> - Di-Syston G	●	●							
<b>esfenvalerate</b> - Asana XL, Adjourn	●	●			●	●	●		
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●	●	●	●	●		
<b>imidacloprid</b> - Attendant 600, Senator 600 ( <i>seed treatment</i> )		●		●					●
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )		●		●					●
<b>imidacloprid</b> - Admire Pro	●	●							
<b>imidacloprid</b> - MANA Alias 4F	●	●							
<b>imidacloprid</b> - Nuprid	●	●							
<b>lambda-cyhalothrin</b> - Kaiso 24 WG, Lambda - Cy, Silencer, Grizzly Z, Warrior II	●	●	●	●	●	●	●		
<b>malathion</b> - Malathion ULV						●			
<b>malathion</b> - Malathion 57EC	●	●							
<b>methomyl</b> - Lannate LV	●	●			●	●			
<b>methyl parathion</b> - PennCap-M	●	●				●			
<b>spinetoram</b> - Radiant SC			●			●			
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC, Respect	●	●	●	●	●	●	●		

### CANOLA (RAPESEED)

	Flea Beetles	Diamondback Moth	Bertha Armyworms	Wireworms
<b>Insecticide - Canola</b>				
<b>Bacillus thuringiensis</b> - DiPel DF			●	
<b>bifenthrin</b> - Capture 2 EC, Bifenture EC-CA, Brigade 2EC, Fanfare 2 EC, Sniper, Tundra EC	●	●	●	
<b>clothianidin</b> - Poncho, Prosper, NipsIT Inside ( <i>seed treatment</i> )	●			●
<b>deltamethrin</b> - Delta Gold	●	●	●	
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●	
<b>imidacloprid</b> - Attendant 600, Dyna-Shield Imidacloprid 5, Senator 600 ( <i>seed treatment</i> )	●			●
<b>imidacloprid</b> - Gaucho ( <i>seed treatment</i> )	●			●
<b>lambda-cyhalothrin</b> - Kaiso 24 WG, Grizzly Z, Lambda-Cy, Warrior II, Silencer	●	●	●	
<b>methyl parathion</b>	●	●	●	
<b>thiamethoxam</b> - Helix, Helix Xtra ( <i>seed treatment</i> )	●			●
<b>zeta-cypermethrin</b> - Mustang Max EC	●	●	●	

### CARROTS

	Aster Leafhopper	Wireworms
<b>Insecticide - Carrots</b>		
<b>beta-cyfluthrin</b> - Baythroid XL	●	
<b>carbaryl</b> - Sevin	●	
<b>esfenvalerate</b> - Asana XL	●	
<b>imidacloprid</b> - Nuprid 2F / 1.6F	●	

Insecticide - Carrots	Aster Leafhopper	Wireworms
imidacloprid - Dyna-Shield Imidacloprid 5 (ST)		●
imidacloprid - Senator 600 (seed treatment)		●
imidacloprid - Admire Pro	●	●
malathion - Malathion 57 EC	●	
methomyl - Lannate LV	●	

### CHICKPEA / GARBANZO BEAN

Insecticide - Chickpea / Garbanzo bean	Pea Aphid	Lygus Bug	Grasshopper	Cutworms	Armyworm	Wireworm
beta-cyfluthrin - Baythroid XL	●	●	●	●	●	
bifenthrin - Fanfare 2 EC	●	●	●	●	●	
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●	
dimethoate - Digon, Dimethoate	●					
esfenvalerate - Asana XL, Silencer	●		●	●		
gamma-cyhalothrin - Proaxis	●	●	●	●	●	
imidacloprid - Nuprid	●	●				
imidacloprid - Attendant 600, Senator 600 (seed treatment)	●					●
imidacloprid - Enhance AW (seed treatment)	●					●
imidacloprid - Admire Pro	●	●				
lambda-cyhalothrin - Grizzly Z, Lambda-Cy, Warrior II, Silencer, Kaiso 24WG	●	●	●	●	●	
methomyl - Lannate LV				●		
spinosad - Success					●	
spinetoram - Radiant SC					●	
zeta-cypermethrin - Mustang Max, Mustang Max EC, Respect	●	●	●	●	●	

### CORN

Insecticide - Corn	Aphids	Armyworm	Cutworm	Corn Rootworm Larvae	Corn Rootworm Adults	Wireworm	European Corn Borer	White Grubs	Grasshopper
<i>Bacillus thuringiensis</i> - DiPel DF		●							
<i>Bacillus thuringiensis</i>							●		
beta-cyfluthrin - Baythroid XL		●	●		●		●	●	●
bifenthrin + zeta-cypermethrin - Hero	●	●	●		●		●		●
bifenthrin - Capture LFR (liquid fertilizer ready)		●	●	●		●		●	
bifenthrin - Capture 2 EC, Fanfare 2 EC, Bifenture EC-CA, Sniper, Tundra EC	●	●	●	●	●	●	●	●	●
carbaryl - Sevin		●			●		●		●
carbaryl - Sevin 5% bait			●						
chlorethoxyfos - Fortress 2.5 G and 5 G				●		●		●	

	Aphids	Armyworm	Cutworm	Corn Rootworm Larvae	Corn Rootworm Adults	Wireworm	European Corn Borer	White Grubs	Grasshopper
<b>Insecticide - Corn</b>									
<b>chlorpyrifos + gamma-cyhalothrin - Cobalt</b>	●	●	●	●	●	●	●	●	●
<b>chlorpyrifos - Lorsban 4E</b>	●	●	●	●	●	●	●		●
<b>chlorpyrifos - Lorsban Advanced</b>	●	●	●	●	●	●	●		●
<b>chlorpyrifos - Warhawk</b>	●	●	●	●	●	●	●	●	●
<b>chlorpyrifos - Lorsban 4E</b>	●	●	●	●	●	●	●	●	●
<b>chlorpyrifos - Lorsban 15 G</b>				●		●	●	●	
<b>chlorpyrifos - Yuma 4E</b>	●	●	●	●	●	●	●	●	●
<b>cyfluthrin - Tombstone, Tombstone Helios</b>		●	●		●		●		●
<b>cyfluthrin + tebufospyridon - Aztec 2.1 G</b>				●		●		●	
<b>deltamethrin - Delta Gold</b>	●	●	●		●		●		●
<b>dimethoate - Digon 400, Dimethoate 400</b>	●				●				●
<b>disulfoton - Di-Syston</b>	●								
<b>esfenvalerate - Asana XL, Adjour</b>		●	●		●		●		●
<b>ethoprop - Mocap 10 G</b>						●			
<b>fibronil - Regent 4 SC</b>				●		●		●	
<b>fibronil - Regent TS</b>						●		●	
<b>gamma-cyhalothrin - Proaxis</b>		●	●		●		●		●
<b>imidacloprid - Attendant 600, Dyna-Shield Imidacloprid 5 , Senator 600 (seed treatment)</b>	●			●		●			●
<b>imidacloprid - Lattitude (seed treatment)</b>						●			
<b>lambda-cyhalothrin - Lambda-Cy, Kaiso 24 WG, Warrior II</b>	●	●	●	●	●	●	●	●	●
<b>lambda-cyhalothrin - Grizzly Z, Silencer</b>	●	●	●		●		●		●
<b>methomyl - Lannate LV</b>	●	●							
<b>methoxyfenazide - Intrepid (IGR)</b>		●					●		
<b>methyl parathion - Methyl parathion 8EC</b>	●	●							●
<b>methyl parathion - PennCap-M</b>	●	●			●		●		●
<b>permethrin - Ambush 2E, Pounce 3.2E &amp; 1.5G, Arctic, Perm-Up</b>		●	●		●	●	●		
<b>phorate - Phorate 15 G</b>				●					
<b>phorate - Phorate 20G</b>							●		
<b>phorate - Thimet 20 G</b>				●		●			
<b>spinosad - Success</b>		●					●		
<b>spinosad - Tracer</b>		●					●		
<b>spinetoram - Radiant SC</b>		●					●		
<b>tefluthrin - Force 1.5 G, Force 3 G, Force CS</b>			●	●		●		●	
<b>thiamethoxam - Counter 15 G</b>				●		●		●	
<b>zeta-cypermethrin - Mustang Max, Mustang Max EC, Respect</b>	●	●	●		●		●		●

## FIELD PEA

Insecticide - Field pea	Pea Aphid	Lygus Bug	Grasshopper	Wireworm
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●	
<b>bifenthrin</b> - Fanfare 2 EC	●	●	●	
<b>carbaryl</b> - Sevin	●	●	●	
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	
<b>dimethoate</b> - Digon, Dimethoate	●			
<b>esfenvalerate</b> - Asana XL	●	●	●	
<b>esfenvalerate</b> - Adjourn	●		●	
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●	
<b>imidacloprid</b> - Nuprid	●	●		
<b>imidacloprid</b> - Mana Alias 4F ( <i>foliar and seed treatment</i> )	●			
<b>imidacloprid</b> - Attendant 600, Senator 600 ( <i>seed treatment</i> )	●			●
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )	●			●
<b>imidacloprid</b> - Admire Pro	●	●		
<b>lamba-cyhalothrin</b> - Kaiso 24 WG, Grizzly Z, Lambda-Cy, Warrior II, Silencer	●	●	●	
<b>methomyl</b> - Lannate LV	●	●	●	
<b>spinosad</b> - Success				
<b>spinetoram</b> - Radiant SC				
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC, Respect	●	●	●	

## FLAX

Insecticide - Flax	Amy Cutworm	Aster Leafhopper	Bertha Armyworm	Cutworm	Grasshopper	Wireworms
<b>carbaryl</b> - Sevin	●	●	●	●	●	
<b>imidacloprid</b> - Gaucho ( <i>seed treatment</i> )						●
<b>imidacloprid</b> - Dyna-Shield Imidacloprid 5 ( <i>seed treatment</i> )						●
<b>imidacloprid</b> - Senator 600 ( <i>seed treatment</i> )						●
<b>thiamethoxam</b> - Cruiser ( <i>seed treatment</i> )						●
<b>zeta-cypermethrin</b> - Mustang Max EC	●			●	●	

## FORAGE CROPS - ALALFA

Insecticide - Alfalfa	Alfalfa Weevil	Alfalfa Bloch Leafminer	Pea Aphid	Leafhopper	Cutworm	Grasshopper Forage	Grasshopper Pasture	Lygus or Plant Bugs
<b>acephate</b> - Acephate E 75 WP, Acephate 75%, Acephate 97 UP, Orthene, Address 75S							●	
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●	●	●	●		●
<b>bifenthrin</b> - Capture 2EC								●
<b>carbaryl</b> - Sevin	●		●	●	●	●	●	
<b>chlorpyrifos</b> - Lorsban 4E, Lorsban Advanced	●	●	●	●	●	●		●

	Alfalfa Weevil	Alfalfa Blotch Leafminer	Pea Aphid	Leafhopper	Cutworm	Grasshopper Forage	Grasshopper Pasture	Lygus or Plant Bugs
<b>Insecticide - Alfalfa</b>								
<b>chlorpyrifos</b> - Chlorpyrifos 4E AG, Warhawk, Yuma 4E (alfalfa only)	●	●	●	●	●	●		
<b>chlorpyrifos + gamma-cyhalothrin</b> - Cobalt	●	●	●	●	●	●		●
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	●	●	●		●
<b>dimethoate</b> - Digon 400, Dimethoate 400			●	●		●		●
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●	●	●	●		●
<b>indoxacarb</b> - Steward EC	●			●				
<b>lambda-cyhalothrin</b> - Kaiso 24 WG, Lambda-Cy, Warrior II, Silencer, Grizzly Z (alfalfa only)	●	●	●	●	●	●		●
<b>malathion</b> - Malathion ULV 95% Tech.							●	
<b>malathion</b> - Malathion 57EC	●		●	●		●	●	●
<b>malathion</b> - Malathion ULV						●		
<b>methomyl</b> - Lannate LV	●	●	●	●	●			●
<b>methoxychlor</b> - Methoxychlor 2EC	●							
<b>methyl parathion</b>						●		
<b>methyl parathion</b> - Penncap-M	●	●	●	●		●	●	
<b>permethrin</b> - Ambush, Pounce, Arctic, Perm-Up	●		●	●	●			●
<b>phosmet</b> - Imidan 50 WP	●		●					
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC, Respect	●		●	●	●	●		●

## LENTIL

	Pea Aphid	Lygus Bug	Grasshopper	Wireworm
<b>Insecticide - Lentil</b>				
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●	
<b>bifenthrin</b> - Fanfare 2 EC	●	●	●	
<b>carbaryl</b> - Sevin		●	●	
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	
<b>dimethoate</b> - Digon, Dimethoate	●			
<b>esfenvalerate</b> - Adjourn	●		●	
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●	
<b>imidacloprid</b> - Nuprid	●	●		
<b>imidacloprid</b> - Mana Alias 4F ( <i>foliar and seed treatment</i> )	●			
<b>imidacloprid</b> - Attendant 600, Senator 600 ( <i>seed treatment</i> )	●			●
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )	●			●
<b>imidacloprid</b> - Admire Pro	●	●		
<b>lambda-cyhalothrin</b> - Grizzly Z, Warrior II, Silencer, Kaiso 24WG	●	●	●	
<b>malathion</b>	●			
<b>methomyl</b> - Asana XL	●	●	●	
<b>spinosad</b> - Success				

Insecticide - Lentil	Pea Aphid	Lygus Bug	Grasshopper	Wireworm
<b>spinetoram</b> - Radiant SC				
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC, Respect	●	●	●	

## LUPINE

Insecticide - Lupine	Pea Aphid	Blister Beetle	Grasshopper	Wireworms	Cutworms
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●		●
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●		●
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●		●
<b>lambda-cyhalothrin</b> - Grizzly Z, Warrior II, Lambda-Cy, Silencer	●	●	●		●
<b>imidacloprid</b> - Attendant 600, Senator 600 ( <i>seed treatment</i> )	●			●	
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )	●			●	
<b>spinosad</b> - Success					
<b>spinetoram</b> - Radiant SC					
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC	●	●	●		●

## MUSTARD

Insecticide - Mustard	Flea Beetles	Wireworms
<b>imidacloprid</b> - Attendant 600, Senator 600 ( <i>seed treatment</i> )	●	●
<b>imidacloprid</b> - Gaucho 600 ( <i>seed treatment</i> )	●	●
<b>zeta-cypermethrin</b> - Mustang Max EC	●	

## OATS

Insecticide - Oats	Aphids	Armyworms	Wireworms	Grasshoppers	Cereal Leaf Beetle
<b>beta-cyfluthrin</b> - Baythroid XL	●	●		●	●
<b>dimethoate</b> - Digon 400, Dimethoate 400				●	
<b>diflubenzuron</b> - Dimilin				●	●
<b>imidacloprid</b> - Attendant 600 ( <i>seed treatment</i> )	●		●	●	
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )	●		●		
<b>imidacloprid</b> - Senator 600 ( <i>seed treatment</i> )	●		●	●	
<b>lambda-cyhalothrin</b> - Kaiso 24WG, Warrior II	●	●		●	●
<b>methomyl</b> - Lannate LV	●	●			●
<b>malathion</b> - Malathion 57EC	●	●		●	●
<b>malathion</b> - Malathion ULV				●	●
<b>methyl parathion</b>	●	●		●	
<b>methyl parathion</b> - Penncap-M	●	●		●	
<b>spinosad</b> - Success		●			●
<b>spinetoram</b> - Radiant SC		●		●	●

## POTATO

Insecticide - Potato	Aphids	Colorado Potato Beetle	Flea Beetle	Potato Leafhopper	Cabbage Looper	Potato Insect Complex	White Grub	Wireworm
<b>abamectin</b> - Abamectin E-AG, Epi-Mek 0.15 EC, Temprano		●						
<b>acetamiprid</b> - Assail 30SG, Assail 70WP	●	●	●	●				
<b>azinphos-methyl</b> - Guthion 3 F		●	●	●				
<b>beta-cyfluthrin</b> - Baytrhoid XL	●	●	●	●	●			
<b>bifenthrin</b> - Bifenture EC, Brigade 2EC, Capture LFR, Fanfare 2EC, Sniper			●				●	●
<b>bifenthrin + zeta-cypermethrin</b> - Hero (2008)	●	●	●	●	●			
<b>bifenthrin + imidacloprid</b> - Brigadier	●	●	●	●				
<b>carbaryl</b> - Sevin		●	●	●				
<b>chlorantraniliprole</b> - Coragen		●			●			
<b>chlorethoxyfos</b> - Fulfill	●							
<b>clothianidin</b> - Belay 2.13SC	●	●	●	●		●		●
<b>cryolite</b> - Kryocide		●						
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	●	●			
<b>delatmethrin + others</b> - Decis	●	●	●	●	●			
<b>dimethoate</b> - digon 400, Dimethoate 400, ...	●		●	●				
<b>dinotefuran</b> - Venom 70 SG	●	●	●	●		●		
<b>disulfoton</b> - Di-Syston 15G						●		
<b>esfenvalerate</b> - Asana XL, Adjourn	●	●	●	●	●			
<b>fipronil</b> - Regent 4 SC								●
<b>flonicamid</b> - Beleaf	●							
<b>imidacloprid</b> - Admire Pro	●	●	●	●				●
<b>imidacloprid</b> - Mana Alias 4F ( <i>foliar</i> )	●	●	●	●				
<b>imidacloprid</b> - Mana Alias 4F ( <i>seed treatment</i> )	●	●	●	●				●
<b>imidacloprid</b> - Genesis								●
<b>imidacloprid</b> - Nuprid 1.6F	●	●	●	●				
<b>imidacloprid</b> - Nuprid 2F	●	●	●	●				●
<b>imidacloprid</b> - Provado 1.6F	●	●	●	●				
<b>imidacloprid + cyfluthrin</b> - Leverage	●	●	●	●	●			
<b>indoxacarb</b> - Avaunt		●			●			
<b>lambda-cyhalothrin</b> - Kaiso 24WG, Warrior II	●	●	●	●	●			
<b>lambda-cyhalothrin + chlorantraniliprole</b> - Voliam Xpress	●	●	●	●	●			
<b>lambda-cyhalothrin + thiamethoxam</b> - Endigo ZC	●	●	●	●	●			
<b>methamidophos</b> - Monitor	●	●			●			
<b>methomyl</b> - Lannate LV	●							
<b>methyl parathion</b> - Penncap-M		●	●	●				
<b>novaluron</b> - Rimon 0.83 EC		●			●			
<b>oxamyl</b> - Vydate L	●	●	●	●				
<b>permethrin</b> - Ambush, Pounce, Arctic, Perm-Up		●	●	●	●			
<b>phorate</b> - Thimet 20 G or Phorate 20 G	●	●	●	●		●		
<b>phosmet</b> - Imidan 50 WP		●	●	●				

Insecticide - Potato	Aphids	Colorado Potato Beetle	Flea Beetle	Potato Leafhopper	Cabbage Looper	Potato Insect Complex	White Grub	Wireworm
<b>spinosad</b> - Success		●			●			
<b>spinetoram</b> - Radiant SC		●			●			
<b>spirotetramat</b> - Movento	●							
<b>thiamethoxam</b> - Actara	●	●		●				
<b>thiamethoxam</b> - Platinum, Platinum Ridomil	●	●	●	●				
<b>thiamethoxam + chlorantraniliprole</b> - Voliam Flexi	●	●	●	●	●			
<b>zeta-cypermethrin</b> - Mustang Max EC, Respect	●	●	●	●	●	●		

### SAFFLOWER

Insecticide - Safflower	Cutworms	Wireworms
<b>imidacloprid</b> - Gaucho ( <i>seed treatment</i> )		●
<b>imidacloprid</b> - Dyna-Shield Imidacloprid 5 ( <i>seed treatment</i> )		●
<b>imidacloprid</b> - Senator 600 ( <i>seed treatment</i> )		●
<b>thiamethoxam</b> - Cruiser 5FS ( <i>seed treatment</i> )		●
<b>zeta-cypermethrin</b> - Mustang Max EC	●	

### SORGHUM (SMALL GRAIN)

Insecticide -Sorghum	Aphids	Armyworms	Cutworms	Grasshoppers
<b>chlorpyrifos</b> - Lorsban 4E	●	●		●
<b>chlorpyrifos</b> - Yuma 4E	●	●	●	●
<b>dimethoate</b> - Digon 400, Dimethoate 400	●			
<b>disulfoton</b> - Di-syston	●			
<b>gamma-cyhalothrin</b> - Proaxis		●	●	●
<b>lambda-cyhalothrin</b> - Grizzly Z, Warrior II		●	●	●
<b>spinetoram</b> - Radiant SC		●		●
<b>zeta-cypermethrin</b> - Mustang max		●	●	●

### SOYBEAN INSECTS

Insecticide - Soybean	Armyworm	Cutworm	Caterpillars	Grasshopper	Bean Leaf Beetle	Potato Leafhopper	Soybean Aphid	Seedcorn Maggot	Spider Mites	Wireworm
<b>acephate</b> - Orthene 97 Pellets	●		●	●	●	●	●			
<b>Bacillus thuringiensis</b> - DiPel DF	●		●							
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●	●	●	●	●			
<b>bifenthrin + zeta-cypermethrin</b> - Hero	●	●	●	●	●	●	●		●	
<b>carbaryl</b> - Sevin	●	●	●	●	●	●				
<b>chlorpyrifos</b> - Lorsban 4E	●	●	●	●	●		●		●	
<b>chlorpyrifos</b> - Lorsban Advanced	●	●	●	●	●	●	●		●	
<b>chlorpyrifos</b> - Chlorpyrifos 4E AG	●	●	●	●	●					
<b>chlorpyrifos</b> - Yuma 4E	●	●	●	●	●		●		●	
<b>chlorpyrifos + gamma-cyhalothrin</b> - Cobalt	●	●	●	●	●	●	●			
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	●	●	●	●			

	Armyworm	Cutworm	Caterpillars	Grasshopper	Bean Leaf Beetle	Potato Leafhopper	Soybean Aphid	Seedcorn Maggot	Spider Mites	Wireworm
<b>Insecticide - Soybean</b>										
<b>deltamethrin</b> - Delta Gold	●	●	●	●	●	●	●			
<b>diflubenzuron</b> - Dimilin	●		●	●						
<b>dimethoate</b> - Digon 400, Dimethoate 400				●	●	●			●	
<b>esfenvalerate</b> - Asana XL, Adjourn		●	●	●	●	●	●			
<b>gamma-cyhalothrin</b> - Proaxis	●	●	●	●	●	●	●			
<b>imidacloprid</b> - Gaucho (seed treatment)					●			●		●
<b>imidacloprid + cyfluthrin</b> - Leverage			●	●	●	●	●			
<b>imidacloprid</b> - Attendant 600, Dyna-Shield Imidacloprid 5, Senator 600 (seed treatment)					●		●	●		
<b>imidacloprid</b> - Enhance AW (seed treatment)					●		●	●		●
<b>imidacloprid</b> - Latitude (seed treatment)					●		●	●		
<b>imidacloprid</b> - MANA Alias 4F					●	●	●			
<b>imidacloprid</b> - Nuprid 1.6 F					●	●	●			
<b>indoxacarb</b> - Steward EC	●		●							
<b>lambda-cyhalothrin</b> - Lambda-Cy EC	●	●	●	●	●	●	●		●	
<b>lambda-cyhalothrin</b> - Kaiso 24 WG, Lambda-Cy EC, Grizzly Z, Silencer, Warrior II	●	●	●	●	●	●	●		●	
<b>lambda-cyhalothrin + thiamethoxam</b> - Endigo ZC	●	●	●	●	●	●	●			
<b>methomyl</b> - Lannate LV			●		●		●			
<b>methoxyfenozide</b> - Intrepid (IGR)	●		●							
<b>methyl parathion</b> - PennCap-M			●	●	●	●	●			
<b>permethrin</b> - Assault 25, Kernel Guard Supreme								●		
<b>permethrin</b> - Pounce 3.2 EC, Ambush, Perm-Up		●	●		●	●				
<b>spinetoram</b> - Radiant SC	●		●							
<b>spinosad</b> - Tracer	●		●							
<b>thiamethoxam</b> - Cruiser 5 FS (seed treatment)								●		●
<b>thiodicarb</b> - Larvin brand 3.2	●	●	●		●					
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC, Respect	●	●	●	●	●	●	●			

\* Leaf Feeding Caterpillars include Green Cloverworm, Cabbage Looper, Velvetbean Caterpillar and Thistle Caterpillar.

## SUGARBEET INSECTS

	Sugarbeet Root Maggot	Beet Webworm	Wireworm	Cutworm	Flea Beetles	Garden Springtail	Grasshopper	Plant (Lygus) Bugs
<b>Insecticide - Sugarbeet</b>								
<b>aldicarb</b> - Temik 15G	●							
<b>carbaryl</b> - Sevin		●		●	●			
<b>chlorpyrifos</b> - Lorsban 15G, Nufos 15G	●							
<b>chlorpyrifos</b> - Lorsban 4E, Warhawk, Yuma 4E	●	●		●	●		●	●
<b>chlorpyrifos</b> - Lorsban Advanced	●			●	●		●	●
<b>chlorpyrifos</b> - Chlorpyrifos 4E AG				●			●	
<b>chlorpyrifos</b> - Nufos 4E	●			●			●	
<b>clothianidin</b> - NipsIT Inside	●		●	●	●	●		
<b>clothianidin + beta-Cyfluthrin</b> - Poncho Beta ( <i>seed treatment</i> )	●		●	●	●	●		
<b>esfenvalerate</b> - Asana XL, Adjourn		●		●	●		●	
<b>imidacloprid</b> - Dyna-Shield Imidacloprid 5, Senator 600, Gaucho 600 ( <i>seed treatment</i> )			●			●		
<b>methomyl</b> - Lannate LV		●			●			
<b>methyl parathion</b>					●		●	
<b>naled</b> - Dibrom								●
<b>terbufos</b> - Counter	●		●			●		
<b>thiamethoxam</b> - Cruiser5FS	●		●			●		
<b>zeta-cypermethrin</b> - Mustang Max		●	●	●	●		●	

## SUNFLOWER INSECTS

	Banded Sunflower Moth	Sunflower Moth	Sunflower Midge	Sunflower Seed Weevil	Sunflower Stem Weevil	Sunflower Beetle	Cutworm	Grasshopper	Wireworm
<b>Insecticide - Sunflower</b>									
<b>Bacillus thuringiensis</b> - DiPel DF		●							
<b>beta-cyfluthrin</b> - Baytrhoid XL	●	●	●	●	●	●	●	●	
<b>carbaryl</b> - Sevin 20% Bait, Sevin XLR					●	●	●	●	
<b>chlorpyrifos</b> - Chlorpyrifos 4E AG, Lorsban 4E, Warhawk, Yuma 4E	●	●		●	●	●	●	●	
<b>chlorpyrifos</b> - Lorsban Advanced	●	●		●	●	●	●	●	
<b>chlorpyrifos</b> - Lorsban 15G							●		
<b>chlorpyrifos + gamma-cyhalothrin</b> - Cobalt	●	●		●	●	●	●	●	
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●	●	●	●	●	●	
<b>deltamethrin</b> - Delta Gold	●	●		●	●	●	●	●	
<b>esfenvalerate</b> - Asana XL, Adjourn	●	●		●	●	●	●	●	
<b>gamma-cyhalothrin</b> - Proaxis	●	●		●	●	●	●	●	
<b>imidacloprid</b> - Gaucho ( <i>seed treatment</i> )						●			●
<b>imidacloprid</b> - Dyna-Shield Imidacloprid 5 ( <b>ST</b> )									●
<b>lambda-cyhalothrin</b> - Kaiso 24 WG, Grizzly Z, Lambda-Cy, Warrior II, Silencer	●	●		●	●	●	●	●	
<b>methyl parathion</b>		●		●					

	Banded Sunflower Moth	Sunflower Moth	Sunflower Midge	Sunflower Seed Weevil	Sunflower Stem Weevil	Sunflower Beetle	Cutworm	Grasshopper	Wireworm
<b>Insecticide - Sunflower</b>									
<b>thiamethoxam</b> - Cruiser 5FS ( <i>seed treatment</i> )						●			●
<b>zeta-cypermethrin</b> - Mustang Max EC	●	●		●	●	●	●	●	●

## WHEAT

	Aphids	Armyworm	Cutworms	Wireworm	Grasshopper	Stem Sawfly	Hessian Fly	Wheat Midge	Stem Maggot	Cereal Leaf Beetle
<b>Insecticide - Wheat</b>										
<b>beta-cyfluthrin</b> - Baythroid XL	●	●	●		●				●	●
<b>carbaryl</b> - Sevin		●			●					●
<b>chlorpyrifos</b> - Lorsban 4E-SG	●	●	●		●			●		●
<b>chlorpyrifos</b> - Warhawk	●		●		●			●		●
<b>chlorpyrifos</b> - Chlorpyrifos 4E AG	●		●		●					●
<b>chlorpyrifos</b> - Yuma 4E	●		●		●			●		●
<b>chlorpyrifos + gamma-cyhalothrin</b> - Cobalt	●	●	●		●			●		●
<b>cyfluthrin</b> - Tombstone, Tombstone Helios	●	●	●		●					●
<b>diflubenzuron</b> - Dimilin					●					●
<b>dimethoate</b> - Digon 400, Dimethoate 400	●				●					●
<b>gamma-cyhalothrin</b> - Proaxis		●	●		●					●
<b>imidacloprid</b> - Attendant 600	●			●	●					
<b>imidacloprid</b> - Dyna-Shield Imidacloprid 5 ( <i>ST</i> )	●			●	●					
<b>imidacloprid</b> - Enhance AW ( <i>seed treatment</i> )	●			●			●			
<b>imidacloprid</b> - Senator 600 ( <i>seed treatment</i> )	●			●	●		●			
<b>lambda-cyhalothrin</b> - Kaiso 24 WG, Grizzly Z, Lambda-Cy	●	●	●		●		●	●		●
<b>lambda-cyhalothrin</b> - Silencer	●	●	●		●	●		●		●
<b>lambda-cyhalothrin</b> - Warrior II	●	●	●		●	●	●	●	●	●
<b>malathion</b> - Malathion ULV					●					●
<b>malathion</b> - Malathion 57EC	●	●			●					●
<b>methomyl</b> - Lannate LV	●	●								●
<b>methyl parathion</b>	●	●			●					●
<b>methyl parathion</b> - Penncap-M	●				●			●		●
<b>spinosad</b> - Success		●								●
<b>spinosad</b> - Tracer		●								●
<b>spinetoram</b> - Radiant SC		●			●					●
<b>zeta-cypermethrin</b> - Mustang Max, Mustang Max EC, Respect	●	●	●		●	●				●

## VEGETABLE CROP INSECTICIDE PRODUCTS - QUICK REFERENCE CHARTS

The following charts are for use as a quick reference to locate possible insecticides available for use against insect pests in field crops. For complete information, restrictions, and precautions, ALWAYS READ THE PRODUCT LABEL.

Carrots	aphids	leaf eating caterpillars	cutworms	flea beetles	grasshopper	leafhopper
<i>General use Insecticide</i>						
azadirachtin (Neem)	●	●	●			●
<i>Bacillus thuringiensis</i>		●				
carbaryl		●	●	●	●	●
malathion	●	●		●		●
methoxychlor		●		●		●
potassium salts - M-Pede	●					●
pyrethrins	●	●	●	●		●
pyrethrins + rotenone - Pyrellin	●	●		●		●
<i>Restricted use Insecticide - see previous chart, page 21</i>						

Cole crops	aphids	leaf-eating caterpillars	cutworms	grasshoppers
<i>General use insecticides</i>				
acephate	●	●		
azadirachtin - (Neem)	●	●	●	
<i>Bacillus thuringiensis</i>		●	●	
Bt + sulfur premix		●		
carbaryl		●	●	●
chlorantraniliprole		●		
cryolite		●	●	
dimethoate	●			
imidacloprid - Nuprid	●			
indoxacarb - Avaunt		●		
malathion	●	●		
methoxychlor		●		
methoxyfenozide - Intrepid IGR		●		
naled - Dibrom	●	●		
petroleum oil	●	●		
potassium salts - M-pede	●			
pyrethrins	●	●		
pyrethrins + rotenone - Pyrellin	●	●		
spinosad - Success		●		
spinetoram - Radiant SC		●		
thiamethoxam + chlorantraniliprole	●	●		
<i>Restricted use insecticides</i>				
azinphos-methyl	●	●		
chlorpyrifos	●	●	●	
cypermethrin	●	●	●	
disulfoton - Di-syston	●			
esfenvalerate - Asana		●	●	●
imidacloprid	●			
lambda-cyhalothrin	●	●	●	●
methomyl - Lannate		●	●	

Cole crops	aphids	leaf-eating caterpillars	cutworms	grasshoppers
methyl parathion	●	●		
permethrin	●	●		
thiodicarb - Larvin brand 3.2		●	●	
zeta-cypermethrin	●	●	●	

Cucurbits	aphids	cucumber beetle	leaf-eating caterpillars	cutworms	flea beetles	grasshoppers
<i>General use insecticides</i>						
azadirachtin	●	●	●	●	●	
carbaryl		●	●	●	●	●
chlorantraniliprole			●			
cryolite		●	●		●	
dimethoate	●					
imidacloprid - Nuprid	●					
malathion	●	●		●		
methoxychlor		●	●		●	
naled - Dibrom	●	●	●			
petroleum oil	●		●			
potassium salts - M-pede	●					
pyrethrins	●	●	●		●	
pyrethrins + rotenone - Pyrellin	●	●	●		●	
thiamethoxam + chlorantraniliprole	●	●	●		●	
<i>Restricted use insecticides</i>						
azinphos-methyl		●				
beta-cyfluthrin - Baythroid XL		●	●	●		●
bifenthrin	●	●	●	●		●
cyfluthrin - Tombstone, Tombstone Helios		●	●	●		●
deltamethrin - Delta Gold		●	●	●	●	●
esfenvalerate - Asana		●		●		●
methomyl - Lannate	●	●	●	●	●	
oxamyl - Vydate	●					
permethrin		●	●	●		

Lentils	aphids	leaf-eating caterpillars	cutworms	bean leaf beetle	flea beetles	grasshoppers	tarnished plant bug
<i>General use Insecticides</i>							
azadirachtin - (Neem)	●	●	●		●		
carbaryl		●	●	●	●	●	●
dimethoate	●						●
malathion	●						
pyrethrins	●	●			●		
pyrethrins + rotenone - Pyrellin	●	●					●
<i>Restricted use Insecticides</i>							
lambda-cyhalothrin - Warrior II	●	●	●	●	●	●	●

Peas	aphids	bean beetle	leaf-eating caterpillars	cutworms	grasshoppers	leafhoppers	lygus bugs
<i>General use Insecticides</i>							
azadirachtin - (Neem)		●	●	●			
carbaryl			●	●	●	●	
dimethoate	●						
malathion	●	●			●	●	
methoxychlor		●	●				
naled - Dibrom	●		●			●	●
potassium salts - M-pede	●					●	
pyrethrins	●		●			●	●
pyrethrins + rotenone - Pyrellin	●		●			●	●
spinosad - Success			●				
<i>Restricted use pesticides</i>							
bifenthrin	●	●	●	●	●	●	●
disulfoton - Di-syston	●					●	
esfenvalerate - Asana	●	●	●	●		●	●
lambda-cyhalothrin - Warrior II	●	●	●	●	●	●	●
methomyl - Lannate	●		●	●			
methyl parathion	●		●	●		●	●

Peppers	aphids	Colorado potato beetle	leaf-eating caterpillars	cutworms	flea beetles	grasshoppers	lygus bugs
<i>General use Insecticides</i>							
acephate	●		●			●	
azadirachtin - (Neem)	●	●	●	●	●		
carbaryl		●	●	●	●	●	●
chlorantraniliprole		●	●				
cryolite		●	●		●		
dimethoate	●						
imidacloprid	●	●			●		
indoxacarb - Avaunt			●				
malathion	●						
methoxychlor			●		●		
naled - Dibrom	●				●		
petroleum oil	●		●				
potassium salts - M-pede	●						●
pyrethrins	●	●	●	●	●		●
pyrethrins + rotenone - Pyrellin	●	●	●		●		●
spinetoram - Radiant SC		●	●				
thiamethoxam + chlorantraniliprole	●	●	●		●		
<i>Restricted use Insecticides</i>							
azinphos-methyl			●		●		
beta-cyfluthrin - Baythroid XL	●	●	●		●		●
bifenthrin			●	●	●		
cyfluthrin - Tombstone, Tombstone Helios	●	●	●		●		●
deltamethrin - Delta Gold	●		●	●	●		●

Peppers	aphids	Colorado potato beetle	leaf-eating caterpillars	cutworms	flea beetles	grasshoppers	lygus bugs
diazinon	●			●			
disulfoton - Di-syston	●						
esfenvalerate - Asana		●	●		●		
lambda-cyhalothrin - Warrior II	●	●	●	●	●	●	●
methomyl - Lannate	●		●	●			
oxamyl - Vydate	●						
permethrin			●	●	●		

Sweet corn	aphids	armyworms	corn rootworm	cutworm	European corn borer	grasshoppers	grubs	sap beetles	seedcorn maggots	wireworms
<b>General use pesticides</b>										
<i>Bacillus thuringiensis</i>		●		●	●					
carbaryl		●	●	●	●	●		●		
indoxacarb - Avaunt		●			●					
malathion	●		●			●		●		
methoxychlor		●								
permethrin (foliar) - Arctic		●	●	●	●					
permethrin (seed treatment)									●	●
petroleum oil	●	●	●							
pyrethrins + rotenone - Pyrellin	●				●					
spinosad - Success		●			●					
spinosad - Tracer		●			●					
spinetoram - Radiant SC		●			●					
<b>Restricted use insecticides</b>										
beta-cyfluthrin - Baythroid XL		●	●	●	●	●				
bifenthrin	●	●	●	●	●	●	●	●	●	●
chlorothoxyfos - Fortress			●	●			●		●	●
chlorpyrifos		●	●	●	●	●	●		●	●
cyfluthrin - Tombstone, Tombstone Helios		●	●	●	●	●				
cyfluthrin + tebupirimiphos - Aztec			●	●			●		●	●
deltamethrin - Delta Gold	●	●	●	●	●	●				
esfenvalerate - Asana	●	●	●	●	●	●		●		
ethoprop - Mocap			●	●			●			
imidacloprid (commercial seed treatment)	●								●	●
lambda-cyhalothrin -Grizzly Z, Warrior II	●	●	●	●	●	●		●		
methomyl - Lannate	●	●	●	●	●					
permethrin		●	●	●	●					
phorate			●				●		●	●
tefluthrin - Force 3G, Force CS			●	●			●		●	●
terbufos - Counter			●	●			●		●	●
thiodicarb - Larvin brand 3.2		●		●	●					

	aphids	armyworms	corn rootworm	cutworm	European corn borer	grasshoppers	grubs	sap beetles	seedcorn maggots	wireworms
Sweet corn										
zeta-cypermethrin - Respect	●	●	●	●	●	●		●		

	armyworms	aphids	Colorado potato beetle	cutworms	European corn borer	fllea beetles	grasshoppers	plant bugs	wireworms
Tomatoes									
<i>General use Insecticides</i>									
azadirachtin	●	●	●	●		●			
beta-cyfluthrin - Baythroid XL	●	●	●	●	●	●	●		
carbaryl	●		●	●	●	●	●	●	
chlorantraniliprole	●		●		●				
cryolite			●			●			
dimethoate		●							
imidacloprid		●	●						
indoxacarb - Avaunt	●								
malathion		●							
methoxychlor			●						
petroleum oil		●							
potassium salts - M-pede		●						●	
pyrethrins	●	●	●	●	●	●		●	
pyrethrins + rotenone - Pyrellin		●	●		●	●		●	
spinetoram - Radiant SC	●		●		●				
thiamethoxam + chlorantraniliprole	●	●	●		●	●			
<i>Restricted use Insecticides</i>									
abamectin			●						
azinphos-methyl		●	●		●	●	●		
bifenthrin	●	●		●	●	●	●	●	
cyfluthrin	●	●	●	●	●				
disulfoton - Di-syston		●	●			●			
esfenvalerate - Asana	●	●	●	●		●	●		
lambda-cyhalothrin - Warrior II	●	●	●	●	●	●	●	●	
methomyl - Lannate	●	●		●					
methyl parathion	●	●	●	●	●	●	●	●	
oxamyl - Vydate		●	●						
permethrin	●		●	●					

## HOME AND LANDSCAPE INSECT CONTROL

With recent changes due to the elimination of Dursban and diazinon from the list of available homeowner products, insect control recommendations have gotten a little more complicated. Also, there are numerous brands available to homeowners that can be found on the shelves in nurseries, garden centers, grocery stores, farm and livestock supply stores, local elevators and others. It has become increasingly difficult with this diversity of choices to talk “brand names.” Instead, the emphasis is on active ingredient in the product and reading the label for specific use directions, which is necessary for any pesticide user.

Another complicating factor is the marketing program of various manufacturers and the naming of their products. The same concentration of an active ingredient might be used in a line of products, each with a different name which specifies its use. But upon reading each product’s label, the insect pests and use sites are identical ..... thus there is no reason to buy two products when one will be adequate.

The following list was prepared in one state to illustrate the diversity of products that can be found. These products may or may not be available in North Dakota and are presented only as an illustration of this diversity. The list contains 27 manufacturers which have utilized 36 active ingredients (of combinations thereof) to produce 132 products which are marketed as RTU (ready-to-use), hose-end, granular, dust, bait and EC (emulsifiable concentrate) formulations.

### acephate

- Ortho Isotox Insect Killer
- Ortho Systemic Insect Killer Concentrate
- Ortho Orthonex Insect and Disease Control Concentrate

### azadirachtin

- Natural Guard Multi-Purpose Neem Insecticide

### *Bacillus thuringiensis*

- American Brand Thuricide
- Fertilome Dipel Dust

### bifenthrin

- Ortho Home Defense Perimeter and Outdoor Insect Killer RTU
- Ortho Rose and Flower RTU
- Ortho Bug-B-Gon MAX Insect Killer for Lawns Granules
- Scotts Lawn Pro Insect Control and Fertilizer Granules

### carbaryl

- Cornbelt Sevin 5% Dust
- Eliminator 7 Dust
- Eliminator Lawn Insect Killer Granules
- Fertilome Carbaryl Garden Spray
- GardenTech Sevin RTU Bug Killer
- GardenTech Sevin Hose-end
- GardenTech Sevin 5 Dust
- GardenTech Sevin Bug Killer Concentrate
- Garden Tech 2% Granules
- Ortho Bug-B-Gon Multipurpose Insect Killer Granules

### carbaryl/malathion

- Bonide Fruit Tree Spray

### carbaryl/metaldehyde

- Bonide No Escape Snail, Slug and Sowbug Bait

### carbaryl/rotenone

- Bonide Tomato/Potato Spray or Dust

### cyfluthrin

- Bayer Tempo SC Ultra
- Schultz Insect Killer
- Schultz Lawn and Garden Insect Killer Granules

### cyfluthrin/imidacloprid

- Bayer Advance Garden Power Force Multi Insect Killer Hose-end
- Bayer Advance Garden Power Force Multi Insect Killer RTU
- Bayer Advance Garden Power Force Multi Insect Killer Concentrate
- Bayer Advance Rose and Flower Insect Killer RTU

### deltamethrin

- Bonide Delta Eight Insect Control

### diatomaceous earth

- Concern Diatomaceous Earth Crawling Insect Killer

### dicofol

- Hi-Yield Kelthane Concentrate

### dimethoate

- Fertilome Ornamental & Evergreen Spray Concentrate
- Hi-Yield Cygon 2E Systemic Ornamental and Vegetable Insecticide Concentrate
- ProTech X-ectue Systemic Insecticide Concentrate

### disulfoton

- Bayer Advance Garden 2-in-1 Rose and Flower Care
- Bonide Systemic House Plant Insect Control
- Fertilome Systemic Insecticide Granules
- Fertilome Rose Food Granule
- Hi-Yield Di-Syston Insecticidal Granules

### endosulfan

- Fertilome Cutworm & Hornworm Killer Dust
- Hi-Yield Thiodan

### esfenvalerate

- KGRO Multi-Purpose Insect Killer Concentrate
- Ortho Bug-B-Gon Garden and Landscape Dust
- Ortho Bug-B-Gon Garden and Landscape RTU
- Ortho Bug-B-Gon MAX Lawn & Garden Insect Killer Hose-end
- Ortho Bug-B-Gon MAX Lawn & Garden Insect Killer Concentrate
- Ortho Bug-B-Gon Multi-Purpose Insect Killer Concentrate
- Ortho Bug-B-Gon Multi-Purpose Insect Killer RTU

### imidacloprid

- Bayer Advance Lawn - Season Long Grub Control Hose-end
- Bayer Advance Garden, Tree & Shrub Insect Control Concentrate
- Scotts GrubEX Granules

### iron phosphate

- Garden Safe Snail & Slug Bait
- Monterey Sluggo

### lambda cyhalothrin

- Spectracide Triazicide hose-end
- Spectracide Triazicide Soil & Turf Insect Killer Concentrate
- Spectracide Triazicide Soil & Turf Insect Killer Granules
- Spectracide Triazicide .04 Granules

### malathion

- Fertilome Fruit Tree Spray Concentrate

Fertilome Mal-A-Cide  
 Gordons Malathion Concentrate  
 Green Thumb Malathion Insect Killer Concentrate  
 Hi-Yield Malathion  
 Ortho Malathion Plus Insect Spray EC  
 Schultz Malathion Concentrate  
 malathion/carbaryl  
   Bonide Fruit Tree Spray EC  
 malathion/methoxychlor  
   Fertilome Bagworm and Tent Caterpillar Killer  
   Fertilome Triple Action  
 metaldehyde  
   Hi-Yield Snail and Slug Killer Pellets  
   Eliminator Snail & Slug Bait  
   KGRO Snail and Slug Killer  
 metaldehyde/carbaryl  
   Bonide No Escape Snail, Slug and Sowbug Bait  
   Fertilome Eliminate Snail, Slug and Bug Bait  
   Ortho Bug-Geta Snail and Bug Killer  
 methoxychlor/malathion  
   Fertilome Bagworm and Tent Caterpillar Killer  
 neem  
   Fertilome Triple Action Plus  
 nicotine  
   Bonide Tobacco Dust  
*Nosema locustae*  
   Planet Natural Semaspore Grasshopper Bait  
 oil (Horticultural)  
   Bonide All-Season Spray Oil  
   Ortho Volck Oil Spray  
   Sunspray Ultra-fine Year-Round Pesticidal Oil  
 permethrin  
   Bonide Eight Garden Dust  
   Bonide Eight Insecticide Concentrate Garden and Lawn  
   Bonide Eight Insecticide Concentrate Vegetable, Fruit  
     and Flower  
   Bonide Borer-Miner Killer  
   Bonide Total Pest Control Concentrate (Outdoor  
     Formula)  
   Cutter Bug-Free Backyard Hose-end  
   Do It Best Multi-Purpose Garden Insect Killer  
     Concentrate  
   Do It Best Multi-Purpose Garden Pest Dust  
   Eliminator Ant, Flea, Tick & Mosquito Killer Concentrate  
   Eliminator Ant, Flea and Tick Killer Granules  
   Green Thumb Multi Purpose Insect Killer Concentrate  
   Hi-Yield 38Plus Turf, Tree & Ornamental Insect Control  
     Concentrate  
   Hi-Yield Garden, Pet and Livestock Insect Control  
     Concentrate  
   Hi-Yield Garden, Pet and Liverstock Dust  
   Hi-Yield Kill-A-Bug II Lawn Granules  
   KGRO Insect Killer Granules  
   KGRO Multi-Purpose Insect Killer (hose-end, RTU)  
   Ortho Basic Solutions Lawn & Garden Insect Killer  
     Concentrate (also hose-end)  
   Ortho Basic Solutions Lawn & Garden Insect Killer  
     Granules  
   Ortho Bug-B-Gon Garden and Landscape  
   Ortho Bug-B-Gon Multi-Purpose Garden Dust  
   Ortho Bug-B-Gon Multi-Purpose Insect Killer hose-end  
   Ortho Mosquito-B-Gon Tree, Shrub & Lawn Spray  
     hose-end  
   Schultz Mosquito Control Hose-end  
   Schultz Fungicide Plus Concentrate  
   Schultz Triple Action Formula Fungicide  
   Terro Outdoor Ant Killer Granules

pyrethrin  
   Concern Multi-Purpose Insect Killer  
   Fertilome Triple Action Plus RTU  
   Green Thumb Rose and Flower Insect Killer RTU  
   Green Thumb Tomato and Vegetable Spray RTU  
   KGRO Tomato and Vegetable Insect Killer RTU  
   Schultz Expert Gardener House Plants and Gardens  
     Insect Spray  
   Schultz Expert Gardener Insect Spray  
   Schultz Fruit & Vegetable Insect Spray RTU  
   Schultz Rose and Flower Insect Spray RTU  
 rotenone  
   Hi-Yield Rotenone Insecticide  
 rotenone/carbaryl  
   Bonide Tomato/Potato Spray or Dust  
 rotenone/pyrethrin  
   Bonide Rotenone/Pyrethrum Concentrate  
 rotenone/sulfur  
   Fertilome Rose, Flower & Vegetable Dust  
 soap  
   Concern Insect Killing Soap  
   Safer House Plant Insect Killing Soap concentrate  
   Safer House Plant Insect Killing Soap With Seaweed  
     Concentrate  
   Safer Insecticide Killing Soap With Seaweed RTU  
   Safer Insecticide Killing Soap Concentrate  
   Safer Insecticide Multi-Purpose Soap Insect Killer  
     Concentrate  
 spinosad  
   Fertilome Borer, Bagworm, Leafminer and Tent  
     Caterpillar Spray Concentrate  
 sulfur  
   Fertilome Dusting Sulfur

## TREES AND SHRUB INSECTICIDE PRODUCTS - QUICK REFERENCE CHARTS

Insecticides for the Management of Insect and Mite Pests of Trees and Shrubs.

The "Alternative" products represent those that would be generally classified as "organic," representing botanicals, microbials and soaps.

Always Read and Follow the Label! (● indicates listed pest is found on the pesticide label)	aphids	plant bugs	leafhoppers	scale insects	spider mites	gall insects	leaf beetles	caterpillars	sawflies	wood borers
<b>Synthetic Insecticides</b>										
acephate (Orthene® and Isotox®)	●	●	●	●	●		●	●	●	
carbaryl (Sevin®)	●	●	●	●		●	●	●	●	
cyfluthrin (Bayer Advanced®)	●	●	●	●			●	●	●	
dicofol (Kelthane®)					●	●				
dimethoate (Cygon®)	●									
esfenvalerate (Bug-B-Gone®)	●	●	●				●	●	●	
horticultural oils				●	●	●				
imidacloprid (Bayer Advanced Garden®)	●	●	●	●			●		●	●
malathion	●	●	●	●		●	●			
permethrin (Astro™ and others)	●	●	●					●	●	●
spinosad (Conserve®)					●		●	●		
<b>Bacillus thuringiensis</b>								●		
insecticidal soaps (M-Pede)	●	●	●		●					
Intrepid (IGR)								●		
pyrethrins	●	●	●				●	●		
neem (Bioneem®)	●							●	●	
rotenone							●			
<b>Alternative</b>										
bifenthrin (Talstar®)		●	●	●		●		●	●	●
cyfluthrin (Tempo®)	●	●	●				●	●	●	
deltamethrin (Deltagard® and Suspend®)	●	●	●	●	●		●	●	●	
dicrotophos (Inject-A-Cide B®)	●					●	●			●
disulfoton (Di-Syston®)	●		●				●	●		
fenpropathrin (Tame®)	●		●		●					
fluvalinate (Mavrik®)	●		●			●		●	●	
imidacloprid (Merit®)	●	●	●				●		●	●
lambda-cyhalothrin (Scimitar®)	●	●	●	●	●		●	●	●	
oxythioquinox (Morestan®)					●	●				
pymetrozine (Endeavor®)	●									

## FLOWER GARDEN INSECTICIDE PRODUCTS - QUICK REFERENCE CHARTS

The "Alternative" products represent those that would be generally classified as "organic," representing botanicals, microbials and soaps. Always read and follow the label. Before treating flowering plants, check the label for comments pertaining to plant sensitivity to the chemical.

( '●' indicates listed pest is found on the pesticide label)

	Aphids	Leaf Beetles	Grasshoppers	Rose Curculio	Rose Slug	Spider Mites	Leathoppers	Plant Bugs	Thrips	Scale Insects	Caterpillars	Cutworms	Millipedes	Sowbugs	Slugs & Snails
<b>General Use Insecticides</b>															
acephate (Orthene® and Isotox®)	●	●	●		●	●	●	●	●	●					
carbaryl	●	●	●	●	●		●	●	●	●	●	●	●	●	
chlorpyrifos*										●		●	●	●	
cyfluthrin (Advanced Garden®)	●	●	●		●		●	●		●	●	●	●	●	
dicofol (Kelthane®)						●									
dimethoate	●								●						
imidacloprid (Advanced Garden®)	●						●	●	●	●					
malathion	●	●					●	●	●	●					
mesurol															●
metaldehyde															●
methoxychlor	●	●			●				●						
<b>Alternative Products</b>															
<i>Bacillus thuringiensis</i> (Bt)											●				
insecticidal soaps	●					●	●	●							
neem (Bioneem®)	●								●		●				
pyrethrins	●	●					●	●			●				
rotenone		●							●						
<b>Professional Use Only</b>															
cyfluthrin (Tempo®)	●	●	●				●	●			●	●	●	●	
disulfoton (Di-Syston®)	●	●					●		●						
fenpropathrin (Tame®)	●					●	●								
fluvalinate (Mavrik®)	●						●		●		●				
imidacloprid (Merit®)	●	●					●	●	●						
lambda-cyhalothrin (Scimitar®)	●	●				●	●		●		●	●		●	
oxythioquinox (Morestan®)						●									

## INSECTICIDES FOR LAWN PEST CONTROL - QUICK REFERENCE TABLE

Insecticide	Rate	Remarks
<b>WHITE GRUBS</b>		
carbaryl (Sevin, several formulations)	Follow label rates for white grubs.	Water into sod after application.
imidacloprid (Advanced Lawn ®)	3 lbs/1,000 sq. ft.	Apply in mid-May. Water after application.
isazophos 4E (Triumph)	1.5 fl. oz./1,000 sq. ft.	Apply in sufficient water to ensure uniform coverage. As soon as application is complete, apply ½ inch of water but stop watering before puddling or runoff occurs. Do not treat golf course fairways.
isofenfos 22% EC (Oftanol 2)	3.0 fl. oz./1,000 sq. ft. or 1 gal./acre	Water lawn thoroughly within 12 hours of the application, using sufficient water to wet the soil to a depth of 1 to 1½ inches.
<b>SOD WEBWORM</b>		
bendiocarb 76% EC (Turcam)	½ to 1 fl. oz./1,000 sq. ft.	Apply when pest is evident. Use adequate quantity of water to thoroughly moisten grass and thatch.
carbaryl (several formulations) (Sevin)	Follow label rate for sod webworm.	Insure good penetration of turf. For best results mow lawn and apply after a rain or watering. Repeat at 2 to 3 week intervals if needed.
isazophos 4E (Triumph)	0.75 fl. oz./1,000 sq. ft.	Apply in sufficient water to ensure uniform coverage. As soon as application is complete, apply ½ inch of water but stop watering before puddling or runoff occurs. Do not treat golf course fairways.
isofenphos 22% EC (Oftanol 2)	1.5 to 3 fl. oz./1,000 sq. ft. treatment.	Apply ¼ to ½ inch of water within 12 hours of application.
<b>ANTS</b>		
bendiocarb 76% EC (Turcam)	0.5 to 1.0 oz./1,000 sq. ft.	Apply to hills and surrounding areas. Use adequate quantities of water to thoroughly moisten grass and thatch.
carbaryl (several formulations) (Sevin)	Follow label rates for ants.	Same as above.
isazophos 4E (Triumph)	0.75 fl. oz./1,000 sq ft.	Apply in sufficient water to ensure uniform coverage. As soon as application is complete, apply ½ inch of water but stop watering before puddling or runoff occurs. Do not treat golf course fairways.
<b>EARTHWORMS</b>		
<p>There are no lawn insecticides that list earthworms on the label of pests controlled. Publications from Ohio State University have listed the toxicity of the common lawn insecticides to earthworms. The only lawn insecticide that is listed as highly toxic to earthworms is carbaryl (Sevin). From this information the following control procedure is suggested:</p> <ol style="list-style-type: none"> <li>1. In early spring, lightly roll or power rake the lawn to remove old worm castings.</li> <li>2. Thoroughly water the lawn several hours before the application is to be applied.</li> <li>3. Apply liquid carbaryl (Sevin) insecticide at the label rate recommended for sod webworms. Evening applications are most effective. Do not water the lawn for several days after application.</li> <li>4. Repeat if castings continue to appear.</li> </ol>		