

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	Aphids	Armyworm	Barley Thrips	Wireworm	Grasshopper	Cereal Leaf Beetle
carbofuran - Furadan 4F					●	●
dimethoate - Digon 400, Dimethoate 400					●	
disulfoton - Di-syston	●					
fenpropathrin - Danitol (pending 2008)	●		●			●
malathion - Malathion 57EC	●	●			●	●
malathion - Malathion ULV					●	●
methomyl - Lannate LV	●	●				●
methyl parathion - Penncap-M	●	●			●	
methyl parathion	●	●				
spinosad - Success		●				●

BEANS, DRY

Insecticide	Leafhoppers	Aphids	Armyworms	Bean Leaf Beetle	Cutworms	Green Cloverworm	Grasshopper	Seed Corn Maggot
acephate - Orthene 75S, Orthene 97, Address 75S	●	●	●	●	●	●	●	
Bacillus thuringiensis - DiPel DF			●			●		
beta-cyfluthrin - Baythroid XL	●	●	●	●	●	●	●	
bifenthrin - Capture LFR (liquid fertilizer ready)								●
bifenthrin - Capture 2 EC	●	●	●	●	●	●	●	
carbaryl - Sevin			●	●	●		●	
chlorpyrifos - Lorsban 30 F, Lorsban 50-SL								●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●	●	●	
dimethoate - Digon 400, Dimethoate 400	●	●						
disulfoton - Di-Syston G	●	●						
esfenvalerate - Asana XL	●	●			●	●	●	
gamma-cyhalothrin - Proaxis	●	●	●	●	●	●	●	
imidacloprid - Nuprid	●	●						
lambda-cyhalothrin - Warrior	●	●	●	●	●	●	●	
malathion - Malathion ULV						●		
malathion - Malathion 57EC	●	●						
methomyl - Lannate LV	●	●			●	●		
methyl parathion - Penncap-M	●	●				●		
phorate - Thimet 20 G	●	●						●
spinosad - Spintor 2SC			●					

Insecticide	Leafhoppers	Aphids	Armyworms	Bean Leaf Beetle	Cutworms	Green Cloverworm	Grasshopper	Seed Corn Maggot
zeta-cypermethrin - Mustang	●	●	●	●	●	●	●	

CANOLA (RAPESEED)

Insecticide	Flea Beetles	Diamondback Moth	Bertha Armyworms
Bacillus thuringiensis - DiPel DF			●
bifenthrin - Brigade 2EC, Sniper, Bifenture EC-CA, Tundra EC	●	●	●
clothianidin - Poncho, Prosper (seed treatment)	●		
deltamethrin - Delta Gold	●	●	●
gamma-cyhalothrin - Proaxis	●	●	●
imidacloprid - Gaucho (seed treatment)	●		
lambda-cyhalothrin - Taiga Z, Warrior, Lambda-Cy	●	●	●
methyl parathion	●	●	●
thiamethoxam - Helix, Helix Xtra (seed treatment)	●		
zeta-cypermethrin - Mustang Max	●	●	●

CARROTS

Insecticide	Aster Leafhopper
beta-cyfluthrin - Baythroid XL	●
carbaryl - Sevin	●
esfenvalerate - Asana XL	●
imidacloprid - Nuprid 2F / 1.6F	●
imidacloprid - Admire Pro	●
malathion - Malathion 57 EC	●
methomyl - Lannate LV	●

CORN

Insecticide	Aphids	Armyworm	Cutworm	Corn Rootworm Larvae	Corn Rootworm Adults	Wireworm	European Corn Borer	White Grubs	Grasshopper
Bacillus thuringiensis - DiPel DF		●							
Bacillus thuringiensis							●		
beta-cyfluthrin - Baythroid XL		●	●		●		●		●
bifenthrin + zeta-cypermethrin - Hero	●	●	●		●		●		●
bifenthrin - Capture LFR (liquid fertilizer ready)		●	●	●		●		●	
bifenthrin - Capture 2EC, Sniper, Bifenture EC-CA Tundra EC	●	●	●	●	●	●	●	●	●
carbaryl - Sevin		●			●		●		●
carbaryl - Sevin 5% bait			●						
carbofuran - Furadan 4F							●		●
chlorethoxyfos - Fortress 2.5 G and 5 G				●		●		●	
chlorpyrifos + gamma-cyhalothrin - Cobalt	●	●	●	●	●	●	●	●	●

	Aphids	Armyworm	Cutworm	Corn Rootworm Larvae	Corn Rootworm Adults	Wireworm	European Corn Borer	White Grubs	Grasshopper
Insecticide									
chlorpyrifos - Lorsban 4E	●	●	●	●	●	●	●		●
chlorpyrifos - Warhawk	●	●	●	●	●	●	●	●	●
chlorpyrifos - Lorsban 4E	●	●	●	●	●	●	●	●	●
chlorpyrifos - Lorsban 15 G				●		●	●	●	
chlorpyrifos - Yuma 4E	●	●	●	●	●	●	●	●	●
cyfluthrin - Tombstone, Tombstone Helios		●	●		●		●		●
cyfluthrin + tebufenpyrad - Aztec 2.1 G				●		●		●	
deltamethrin - Delta Gold	●	●	●		●		●		●
dimethoate - Digon 400, Dimethoate 400	●				●				●
disulfoton - Di-Syston	●								
esfenvalerate - Asana XL		●	●		●		●		●
ethoprop - Mocap 10 G						●			
gamma-cyhalothrin - Proaxis		●	●		●		●		●
lambda-cyhalothrin - Lambda-Cy	●	●	●	●	●	●	●	●	●
lambda-cyhalothrin - Taiga Z	●	●	●		●		●		●
lambda-cyhalothrin - Warrior	●	●	●		●		●		●
methomyl - Lannate LV	●	●							
methoxyfenozide - Intrepid (IGR)		●					●		
methyl parathion - Methyl parathion 8EC	●	●							●
methyl parathion - Penncap-M	●	●			●		●		●
permethrin - Ambush 2E, Pounce 3.2E & 1.5G, Arctic, Perm-Up		●	●		●	●	●		
phorate - Phorate 15 G				●					
phorate - Phorate 20G							●		
phorate - Thimet 20 G				●		●			
spinosad - Success		●					●		
spinosad - Tracer		●					●		
tefluthrin - Force 1.5 G and 3 G				●		●		●	
thiamethoxam - Counter 15 G				●		●		●	
zeta-cypermethrin - Mustang Max		●	●		●		●		●

FLAX

	Army Cutworm	Aster Leafhopper	Bertha Armyworm	Cutworm	Grasshopper	Wireworms
Insecticide						
carbaryl - Sevin	●	●	●	●	●	

FORAGE CROPS - ALALFA

Insecticide	Alfalfa Weevil	Alfalfa Blotch Leafminer	Pea Aphid	Leafhopper	Cutworm	Grasshopper Forage	Grasshopper Pasture	Lygus or Plant Bugs
beta-cyfluthrin - Baythroid XL	●	●	●	●	●	●		●
bifenthrin - Capture 2EC								●
carbaryl - Sevin	●		●	●	●	●	●	
carbofuran - Furadan 4F (alfalfa only)	●	●	●	●		●		●
chlorpyrifos - Lorsban 4E (alfalfa only)	●	●	●	●	●	●		●
chlorpyrifos - Warhawk (alfalfa only)	●	●	●	●	●	●		
chlorpyrifos - Yuma 4E (alfalfa only)	●	●	●	●	●	●		●
chlorpyrifos + gamma-cyhalothrin - Cobalt	●	●	●	●	●	●		●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●	●		●
dimethoate - Digon 400, Dimethoate 400			●	●		●		●
gamma-cyhalothrin - Proaxis	●	●	●	●	●	●		●
indoxacarb - Steward EC	●			●				
lambda-cyhalothrin - Taiga Z (alfalfa only)	●	●	●	●	●	●		●
lambda-cyhalothrin - Lambda-Cy, Warrior	●	●	●	●	●	●		●
malathion - Malathion ULV 95% Tech.							●	
malathion - Malathion 57EC	●		●	●		●	●	●
malathion - Malathion ULV						●		
methomyl - Lannate LV	●	●	●	●	●			●
methoxychlor - Methoxychlor 2EC	●							
methyl parathion						●		
methyl parathion - Penncap-M	●	●	●	●		●	●	
permethrin - Ambush, Pounce, Arctic, Perm-Up	●		●	●	●			●
phosmet - Imidan 50 WP	●		●					
zeta-cypermethrin - Mustang Max	●			●	●	●		●

MUSTARD

Insecticide	Flea Beetle
imidacloprid - Gaucho	●

OATS

Insecticide	Aphids	Armyworms	Wireworms	Grasshoppers	Cereal Leaf Beetle
dimethoate - Digon 400, Dimethoate 400				●	
carbofuran - Furadan 4F				●	●
methomyl - Lannate LV	●	●			●
malathion - Malathion 57EC	●	●		●	●
malathion - Malathion ULV				●	●
methyl parathion	●	●		●	
methyl parathion - Penncap-M	●	●		●	
spinosad - Success		●			●

POTATO

Insecticide	Aphids	Colorado Potato Beetle	Flea Beetle	Potato Leafhopper	Cabbage Looper	Potato Insect Complex
abamectin - Epi-Mek 0.15 EC		●				
acetamiprid - Assail 30SG, Assail 70WP	●	●	●	●		
azinphos-methyl - Guthion 3 F		●	●	●		
beta-cyfluthrin - Baytrhoid XL	●	●	●	●	●	
bifenthrin + zeta-cypermethrin - Hero (2008)	●	●				
bifenthrin - Brigadier (pending 2008)	●	●	●	●		
carbaryl - Sevin		●	●	●		
carbofuran - Furadan 4F		●	●	●		
chlorethoxyfos - Fulfill	●					
cryolite - Kryocide		●				
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●	
delatmethrin + others - Decis	●	●	●	●	●	
dimethoate - digon 400, Dimethoate 400, ...	●		●	●		
dinotefuran - Venom 70 SG	●	●	●	●		●
disulfoton - Di-Syston 15G						●
esfenvalerate - Asana XL	●	●	●	●	●	
flonicamid - Beleaf	●					
imidacloprid - Admire Pro	●	●	●	●		
imidacloprid - Nuprid	●	●	●	●		
imidacloprid - Provado 1.6F	●	●	●	●		
imidacloprid + cyfluthrin - Leverage	●	●	●	●	●	
indoxacarb - Avaunt		●			●	
lambda-cyhalothrin - Warrior	●	●	●	●	●	
methamidophos - Monitor	●	●			●	
methomyl - Lannate LV	●					
methyl parathion - Penncap-M		●	●	●		
novaluron - Rimon 0.83 EC		●			●	
oxamyl - Vydate L	●	●	●	●		
permethrin - Ambush, Pounce, Arctic, Perm-Up		●	●	●	●	
phorate - Thimet 20 G or Phorate 20 G	●	●	●	●		●
phosmet - Imidan 50 WP		●	●	●		
spinosad - Spin Tor 2SC		●				
spinosad - Success		●			●	
thiamethoxam - Actara	●	●		●		
thiamethoxam - Platinum, Platinum Ridomil	●	●	●	●		
zeta-cypermethrin - Mustang Max	●	●	●	●	●	●

PULSE CROP - CHICKPEA / GARBANZO BEAN

Insecticide	Pea Aphid	Lygus Bug	Grasshopper	Cutworms	Armyworm
beta-cyfluthrin - Baytrhoid XL	●	●	●	●	●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●
dimethoate - Digon, Dimethoate	●				
esfenvalerate - Asana XL	●		●	●	

Insecticide	Pea Aphid	Lygus Bug	Grasshopper	Cutworms	Armyworm
gamma-cyhalothrin - Proaxis	●	●	●	●	●
imidacloprid - Nuprid	●	●			
lamba-cyhalothrin - Taiga Z, Warrior, Lambda-Cy	●	●	●	●	●
methomyl - Lannate LV				●	
spinosad - Spintor 2SC					●
spinosad - Success					●
zeta-cypermethrin - Mustang Max	●	●	●	●	

PULSE CROP - FIELD PEA

Insecticide	Pea Aphid	Lygus Bug	Grasshopper
beta-cyfluthrin - Baythroid XL	●	●	●
carbaryl - Sevin	●	●	●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●
dimethoate - Digon, Dimethoate	●		
esfenvalerate - Asana XL	●	●	●
gamma-cyhalothrin - Proaxis	●	●	●
imidacloprid - Nuprid	●	●	
lamba-cyhalothrin - Taiga Z, Warrior, Lambda-Cy	●	●	●
methomyl - Lannate LV	●	●	●
spinosad - Success			
zeta-cypermethrin - Mustang Max	●	●	●

PULSE CROP - LENTIL

Insecticide	Pea Aphid	Lygus Bug	Grasshopper
beta-cyfluthrin - Baythroid XL	●	●	●
carbaryl - Sevin		●	●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●
dimethoate - Digon, Dimethoate	●		
gamma-cyhalothrin - Proaxis	●	●	●
imidacloprid - Nuprid	●	●	
lambda-cyhalothrin - Taiga Z, Warrior	●	●	●
malathion	●		
methomyl - Asana XL	●	●	●
spinosad - Success			
zeta-cypermethrin - Mustang Max	●	●	●

PULSE CROP - LUPINE

Insecticide	Pea Aphid	Blister Beetle	Grasshopper	Cutworms
beta-cyfluthrin - Baythroid XL	●	●	●	●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●
gamma-cyhalothrin - Proaxis	●	●	●	●
lamba-cyhalothrin - Taiga Z, Warrior, Lambda-Cy	●	●	●	●

Insecticide	Pea Aphid	Blister Beetle	Grasshopper	Cutworms
spinosad - Success				
zeta-cypermethrin - Mustang Max	●	●	●	●

SORGHUM (SMALL GRAIN)

Insecticide	Aphids	Armyworms	Cutworms	Grasshoppers
chlorpyrifos - Lorsban 4E	●	●		●
chlorpyrifos - Yuma 4E	●	●	●	●
dimethoate - Digon 400, Dimethoate 400	●			
disulfoton - Di-syston	●			
gamma-cyhalothrin - Proaxis		●	●	●
lambda-cyhalothrin - Taiga Z, Warrior		●	●	●
zeta-cypermethrin - Mustang max		●	●	●

SOYBEAN INSECTS

Insecticide	Armyworm	Cutworm	Caterpillars	Grasshopper	Bean Leaf Beetle	Potato Leathopper	Soybean Aphid	Seedcorn Maggot	Spider Mites	Wireworm
acephate - Orthene 97 Pellets	●		●	●	●	●	●			
<i>Bacillus thuringiensis</i> - DiPel DF	●		●							
beta-cyfluthrin - Baythroid XL	●	●	●	●	●	●	●			
bifenthrin + zeta-cypermethrin - Hero (2008)		●	●	●	●		●		●	
carbaryl - Sevin	●	●	●	●	●	●				
carbofuran - Furadan 4F				●			●			
chlorpyrifos - Lorsban 4E	●	●	●	●	●		●		●	
chlorpyrifos - Yuma 4E	●	●	●	●	●		●		●	
chlorpyrifos + gamma-cyhalothrin - Cobalt	●	●	●	●	●	●	●			
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●	●	●			
deltamethrin - Delta Gold	●	●	●	●	●	●	●			
dimethoate - Digon 400, Dimethoate 400				●	●	●			●	
esfenvalerate - Asana XL		●	●	●	●	●	●			
gamma-cyhalothrin - Proaxis	●	●	●	●	●	●	●			
imidacloprid - Gaucho (seed treatment)								●		●
indoxacarb - Steward EC	●		●							
lambda-cyhalothrin - Lambda-Cy EC	●	●	●	●	●	●	●		●	
lambda-cyhalothrin - Taiga Z	●	●	●	●	●	●	●		●	
lambda-cyhalothrin - Warrior	●	●	●	●	●	●	●		●	
methomyl - Lannate LV			●		●		●			
methoxyfenozide - Intrepid (IGR)	●		●							
methyl parathion - PennCap-M			●	●	●	●	●			
permethrin - Assault 25, Kernel Guard Supreme								●		
permethrin - Pounce 3.2 EC, Ambush, Perm-Up		●	●		●	●				
spinosad - Tracer	●		●							
thiamethoxam - Cruiser (seed treatment)								●		●
thiodicarb - Larvin brand 3.2	●	●	●		●					

Insecticide	Armyworm	Cutworm	Caterpillars	Grasshopper	Bean Leaf Beetle	Potato Leathopper	Soybean Aphid	Seedcorn Maggot	Spider Mites	Wireworm
zeta-cypermethrin - Mustang Max	●	●	●	●	●	●	●			

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

SUGARBEET INSECTS

Insecticide	Sugarbeet Root Maggot	Beet Webworm	Wireworm	Cutworm	Flea Beetles	Grasshopper	Tarnished Plant (Lygus) Bugs
aldicarb - Temik 15G	●						
carbaryl - Sevin		●		●	●		
chlorpyrifos - Lorsban 15G, Nufos 15G	●						
chlorpyrifos - Lorsban 4E, Warhawk, Yuma 4E	●	●		●	●	●	●
chlorpyrifos - Nufos 4E	●			●		●	
esfenvalerate - Asana XL		●		●		●	
methomyl - Lannate LV		●			●		●
methyl parathion					●	●	
naled - Dibrom							●
terbufos - Counter 15G , Counter CR	●		●				
zeta-cypermethrin - Mustang Max		●	●	●	●	●	

SUNFLOWER INSECTS

Insecticide	Banded Sunflower Moth	Sunflower Moth	Sunflower Midge	Sunflower Seed Weevil	Sunflower Stem Weevil	Sunflower Beetle	Cutworm	Grasshopper	Wireworm
Bacillus thuringiensis - DiPel DF		●							
beta-cyfluthrin - Baytrhoid XL	●	●	●	●	●	●	●	●	
carbaryl - Sevin 20% Bait, Sevin XLR					●	●	●	●	
carbofuran - Furadan 4F	●	●		●	●	●	●	●	
chlorpyrifos - Lorsban 4E, Warhawk, Yuma 4E	●	●		●	●	●	●	●	
chlorpyrifos - Lorsban 15G							●		
chlorpyrifos + gamma-cyhalothrin - Cobalt	●	●		●	●	●	●	●	
cyfluthrin - Tombstone, Tombstone Helios	●	●	●	●	●	●	●	●	
deltamethrin - Delta Gold	●	●		●	●	●	●	●	
esfenvalerate - Asana XL	●	●		●	●	●	●	●	
gamma-cyhalothrin - Proaxis	●	●		●	●	●	●	●	
imidacloprid - Gaucho (seed treatment)						●			●
lambda-cyhalothrin - Taiga Z, Warrior, Lambda-methyl parathion	●	●		●	●	●	●	●	
thiamethoxam - Cruiser				●		●			●

Insecticide	Banded Sunflower Moth	Sunflower Moth	Sunflower Midge	Sunflower Seed Weevil	Sunflower Stem Weevil	Sunflower Beetle	Cutworm	Grasshopper	Wireworm
zeta-cypermethrin - Mustang Max	●	●		●	●	●	●	●	●

WHEAT

Insecticide	Aphids	Armyworm	Cutworms	Wireworm	Grasshopper	Stem Sawfly	Hessian Fly	Wheat Midge	Stem Maggot	Cereal Leaf Beetle
beta-cyfluthrin - Baythroid XL	●	●	●		●					●
carbaryl - Sevin		●			●					●
carbofuran - Furadan 4F					●					●
chlorpyrifos - Lorsban 4E-SG	●	●	●		●			●		●
chlorpyrifos - Warhawk	●		●		●			●		
chlorpyrifos - Yuma 4E	●		●		●			●		
chlorpyrifos + gamma-cyhalothrin - Cobalt	●	●	●		●			●		●
cyfluthrin - Tombstone, Tombstone Helios	●	●	●		●					●
dimethoate - Digon 400, Dimethoate 400	●				●					
gamma-cyhalothrin - Proaxis		●	●		●					●
lambda-cyhalothrin - Warrior, Taiga Z, Lambda-Cy	●	●	●		●	●	●	●		●
malathion - Malathion ULV					●					●
malathion - Malathion 57EC	●	●			●					●
methomyl - Lannate LV	●	●								●
methyl parathion	●	●			●					
methyl parathion - Penncap-M	●				●			●		
spinosad - Success		●								●
spinosad - Tracer		●								
zeta-cypermethrin - Mustang Max		●	●		●					●

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
General use Insecticide						
azadirachtin (Neem)	●	●	●			●
<i>Bacillus thuringiensis</i>		●				
carbaryl		●	●	●	●	●
malathion	●	●		●		●
methoxychlor		●		●		●
potassium salts - M-Pede	●					●
pyrethrins	●	●	●	●		●
pyrethrins + rotenone - Pyrellin	●	●		●		●
Restricted use Insecticide - see previous chart, page 21						

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

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	●	●	●	●	●	●	●
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		●	●	●	●	●	●
cryolite		●	●		●		
dimethoate	●						
imidacloprid	●	●			●		
indoxacarb - Avaunt			●				
malathion	●						
methoxychlor			●		●		
naled - Dibrom	●				●		
petroleum oil	●		●				
potassium salts - M-pede	●						●
pyrethrins	●	●	●	●	●		●
pyrethrins + rotenone - Pyrellin	●	●	●		●		●
<i>Restricted use Insecticides</i>							
azinphos-methyl			●		●		
beta-cyfluthrin - Baythroid XL	●	●	●		●		●
bifenthrin			●	●	●		
cyfluthrin - Tombstone, Tombstone Helios	●	●	●		●		●
deltamethrin - Delta Gold	●		●	●	●		●
diazinon	●			●			
disulfoton - Di-syston	●						
esfenvalerate - Asana		●	●		●		
lambda-cyhalothrin - Warrior	●	●	●	●	●	●	●
methomyl - Lannate	●		●	●			

oxamyl - Vydate	●								
permethrin				●	●	●			

	aphids	armyworms	corn rootworm	cutworm	European corn borer	grasshoppers	grubs	sap beetles	seedcorn maggots	wireworms
Sweet corn										
General use pesticides										
<i>Bacillus thuringiensis</i>		●		●	●					
carbaryl		●	●	●	●	●		●		
indoxacarb - Avaunt		●			●					
malathion	●		●			●		●		
methoxychlor		●								
permethrin (seed treatment)									●	●
petroleum oil	●	●	●							
pyrethrins + rotenone - Pyrellin	●				●					
spinosad - Success		●			●					
spinosad - Tracer		●			●					
Restricted use insecticides										
beta-cyfluthrin - Baythroid XL		●	●	●	●	●				
bifenthrin	●	●	●	●	●	●	●	●	●	●
carbofuran - Furadan		●	●		●				●	
chlorethoxyfos - Fortress			●	●			●		●	●
chlorpyrifos		●	●	●	●	●	●		●	●
cyfluthrin - Tombstone, Tombstone Helios		●	●	●	●	●				
cyfluthrin + tebupirimiphos - Aztec			●	●			●		●	●
deltamethrin - Delta Gold	●	●	●	●	●	●				
esfenvalerate - Asana	●	●	●	●	●	●		●		
ethoprop - Mocap			●	●			●			
lambda-cyhalothrin - Taiga Z	●	●	●	●	●	●		●		
lambda-cyhalothrin - Warrior	●	●	●	●	●	●		●		
methomyl - Lannate	●	●	●	●	●					
permethrin		●	●	●	●					
phorate			●				●		●	●
terbufos - Counter			●	●			●		●	●
thiodicarb - Larvin brand 3.2		●		●	●					

Tomatoes	armyworms	aphids	Colorado potato beetle	cutworms	European corn borer	fllea beetles	grasshoppers	plant bugs	wireworms
General use Insecticides									
azadirachtin	●	●	●	●		●			
beta-cyfluthrin - Baythroid XL	●	●	●	●	●	●	●		
carbaryl	●		●	●	●	●	●	●	
cryolite			●			●			
dimethoate		●							
imidacloprid		●	●						
indoxacarb - Avaunt	●								
malathion		●							
methoxychlor			●						
petroleum oil		●							
potassium salts - M-pede		●						●	
pyrethrins	●	●	●	●	●	●		●	
pyrethrins + rotenone - Pyrellin		●	●		●	●		●	
Restricted use Insecticides									
abamectin			●						
azinphos-methyl		●	●		●	●	●		
bifenthrin	●	●		●	●	●	●	●	
cyfluthrin	●	●	●	●	●				
disulfoton - Di-syston		●	●			●			
esfenvalerate - Asana	●	●	●	●		●	●		
lambda-cyhalothrin	●	●	●	●	●	●	●	●	
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

azadiractin

- 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
Synthetic Insecticides										
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®)					●		●	●		
Bacillus thuringiensis								●		
insecticidal soaps (M-Pede)	●	●	●		●					
Intrepid (IGR)								●		
pyrethrins	●	●	●				●	●		
neem (Bioneem®)	●							●	●	
rotenone							●			
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	Leafhoppers	Plant Bugs	Thrips	Scale Insects	Caterpillars	Cutworms	Millipedes	Sowbugs	Slugs & Snails
General Use Insecticides															
acephate (Orthene® and Isotox®)	●	●	●		●	●	●	●	●	●					
carbaryl	●	●	●	●	●		●	●	●	●	●	●	●	●	
chlorpyrifos*										●		●	●	●	
cyfluthrin (Advanced Garden®)	●	●	●		●		●	●		●	●	●	●	●	
dicofol (Kelthane®)						●									
dimethoate	●								●						
imidacloprid (Advanced Garden®)	●						●	●	●	●					
malathion	●	●					●	●	●	●					
mesurol															●
metaldehyde															●
methoxychlor	●	●			●				●						
Alternative Products															
<i>Bacillus thuringiensis</i> (Bt)											●				
insecticidal soaps	●					●	●	●							
neem (Bioneem®)	●								●		●				
pyrethrins	●	●					●	●			●				
rotenone		●							●						
Professional Use Only															
cyfluthrin (Tempo®)	●	●	●				●	●			●	●	●	●	
disulfoton (Di-Syston®)	●	●					●		●						
fenpropathrin (Tame®)	●					●	●								
fluvalinate (Mavrik®)	●						●		●		●				
imidacloprid (Merit®)	●	●					●	●	●						
lambdacyhalothrin (Scimitar®)	●	●				●	●		●		●	●		●	
oxythioquinox (Morestan®)						●									

INSECTICIDES FOR LAWN PEST CONTROL - QUICK REFERENCE TABLE

Insecticide	Rate	Remarks
WHITE GRUBS		
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.
SOD WEBWORM		
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.
ANTS		
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.
EARTHWORMS		
<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"> 1. In early spring, lightly roll or power rake the lawn to remove old worm castings. 2. Thoroughly water the lawn several hours before the application is to be applied. 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. 4. Repeat if castings continue to appear. 		