

# ACUTE PESTICIDE TOXICITY CHART FOR VEGETABLE CROPS



**Nova Scotia Vegetable Crop Guide to Pest Management 2010**  
[TOX1-10]

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## **IMPORTANT**

This publication was compiled by representatives from AgraPoint using information from the Pest Management Regulatory Agency of Health Canada, specific pesticide labels, MSDS, previous Atlantic Provinces Vegetable Pest Guides and EXTOWNET. **This information is designed to be used as a tool to help select specific products based on their toxicity profile. The toxicity ratings listed in the table below are designed to give a general idea of toxicity and the rating scale used is based on USEPA's toxicity scale (see table at the end of the document)**

By printing this publication, AgraPoint does not offer any warranty or guarantee, nor do they assume any liability for any crop loss, animal loss, health, safety or environmental hazard caused by the use of a pesticide mentioned in this publication.

## **WARNINGS**

**This publication lists all active ingredients registered in vegetable crops for Nova Scotia. Where there are multiple brand names of a specific active ingredient registered in Canada, AgraPoint has only listed a couple for reference purposes and as such does not endorse one brand over another. If you have purchased a generic product not specifically in this guide but has your crop and pest on the label, always follow that product label.**

**If any information in this or any other publication conflicts with the information on the label and MSDS, always use the label and MSDS recommendations.** If you have an old label, your pesticide supplier should be able to give you the newest label. You are legally responsible for the safe use of pesticides you purchase. This means the safe transport and storage of these materials, the label rates used on crops, and the safe disposal of containers.

COMMON NAME	TRADE NAMES	Use	Chemical Class	TOXICITY		
				TO BEES	TO APPLICATOR	
					ORAL	DERMAL
2,4-D	2,4-D	H	phenoxy	low	mod	mod
acephate	Orthene	I	organophosphate	high	mod	mod
acetamiprid	Assail	I	neonicotinoid	mod	mod	low
azoxystrobin	Quadris	F	qol	slight	slight	low
<i>Bacillus subtilis</i>	Serenade Max	F	biological	slight	slight	slight
<i>Bacillus thuringiensis</i>	Novodor, Dipel, Thuracide, BioProtec	I	biological	slight	slight	slight
bentazon	Basagran	H	benzothiadiazine	slight	low	low
boscalid	Lance	F	anilide	low	low	low
boscalid, pyraclostrobin	Pristine	F	Anilde/qol	low	low	low
bromoxynil	Koril, Pardner	H	nitrile	low	low	low
captan	Captan, Maestro	F	phthalimide	low	low	low
carbaryl	Sevin XLR Plus	I	carbamate	high	mod	low
carbofuran	Furadan	I	carbamate	high	high	mod
chlorothalonil	Bravo	F	chloronitrile	slight	slight	slight
chlorpyrifos	Lorsban, Pyrifos, Pyrinex	I	organophosphate	high	mod	mod
chlorsulfuron	Telar	H	Sulfonyl urea	low	low	slight
chlorthal dimethyl	Dacthal	H	phthalate	low	slight	low
clethodim	Select	H	cyclohexanedione	slight	mod	slight
clopyralid	Lontrel	H	pyridine	low	slight	slight
clothianidin	Poncho	I	neonicotinoid	mod	mod	low
copper hydroxide	Kocide, Parasol	F	inorganic	low	mod	low
copper sulfate	Copper 53W	F	Inorganic	mod	mod	mod
cyhalothrin-lambda	Matador	I	pyrethroid	high	mod	mod
cymoxanil	Curzate	F	dithiocarbamate	-	mod	low
cypermethrin	Ripcord, UP-Cyde	I	pyrethroid	high	mod	low
cyprodinil, fludioxonil	Switch	F	anilinyrimidine/phenylpyrrole	low	low	low
deltamethrin	Decis	I	pyrethroid	high	mod	low
diazinon	Diazinon, DZN	I	organophosphate	high	mod	mod
Dicamba/MCPA	Dyvel	H	Benzoic acid	low	low	low
dichloran	Botran	F	quinone	low	low	low
dicofol	Kelthane	M	organochlorine	low	low	low
dimethenamid	Frontier	H	chloroacetamide	low	low	low
dimethoate	Cygon, System, Lagon	I	organophosphate	high	mod	mod
diquat	Reglone	H	bipyridylum	low	mod	mod
diuron	Karmex	H	Substituted urea	low	low	low
endosulfan	Thiodan, Thionex	I	chlorinated hydrocarbon	high	high	high
ethofumesate	Nortron	H	unclassified	low	low	low
famoxadone/cymoxanil	Tanos	F	Qol + acetamide	low	low	low
fenhexamid	Elevate	F	anilide	slight	low	low

fenoxaprop-p-ethyl	<b>Excel Super</b>	H	Aryloxy-phenoxypropionate	slight	low	low
ferbam	<b>Ferbam</b>	F	Dithiocarbamate	low	slight	slight
ferric phosphate	<b>Sluggo</b>	i	Inorganic	low	slight	slight
fluazifop-p-butyl	<b>Venture</b>	H	Aryloxy-phenoxypropionate	slight	low	low
fluazinam	<b>Allegro</b>	F	pyridamine	low	slight	low
flumioxazin	<b>Chateau</b>	H	bipyridiliums	slight	slight	low
fomesafen	<b>Reflex</b>	H	Diphenyl-ether	low	slight	mod
fosetyl-al	<b>Aliette</b>	F	phosphonate	low	low	low
glufosinate ammonium	<b>Ignite</b>	H	unique	low	low	low
glyphosate	<b>Roundup, Touchdown, Glyfos</b>	H	Amino acid	slight	low	slight
imazethapyr	<b>Pursuit</b>	H	imidazole	slight	slight	low
imidacloprid	<b>Admire, Gaucho</b>	I	neonicitinoid	high	low	low
iprodone	<b>Rovral</b>	F	dicarboximide	slight	low	low
kaolin clay	<b>Surround</b>	I	Inert clay	slight	slight	slight
linuron	<b>Lorox</b>	H	Substituted urea	slight	low	slight
malathion	<b>Malathion</b>	I	organophosphate	high	mod	low
mancozeb	<b>Dithane, Manzate</b>	G	ethylene(bis) dithiocarbamate	slight	slight	slight
mandipropamid	<b>Revus</b>	F	Carboxylic acid amides	slight	low	slight
mcpa	<b>MCPA</b>	H	Phenoxy	low	low	low
mcpa/mcpb	<b>Tropotox Plus, Clovitox Plus</b>	H	phenoxy	low	low	low
metalaxyl	<b>Ridomil</b>	F	benzenoid	slight	low	low
metalaxyl-M	<b>Ridomil Gold, Apron XL LS</b>	F	benzenoid	slight	low	low
methomyl	<b>Lannate</b>	I	carbamate	high	high	low
metiram	<b>Polyram</b>	F	ethylene(bis) dithiocarbamate	low	slight	low
metribuzin	<b>Sencor</b>		triazine	slight	low	slight
mineral oil	<b>Superior oil</b>	I	n/a	low	slight	low
myclobutanil	<b>Nova</b>	F	triazole	slight	low	slight
naled	<b>Dibrom</b>	I	organophosphate	high	mod	mod
napropamide	<b>Devrinol</b>	H	amide	slight	slight	low
naptalam	<b>Alanap</b>	H	amide	low	low	slight
nicosulfuron	<b>Accent</b>	H	sulfonylurea	low	slight	slight
oxyfluorfen	<b>Goal 2XL</b>	H	Diphenyl ether	slight	low	low
paraquat	<b>gramoxone</b>	H	quaternary nitrogen	low	high	mod
pendimethalin	<b>Prowl 400</b>	H	dinitroaniline	slight	low	low
permethrin	<b>Pounce</b>	I	pyrethroid	high	mod	low
phosmet	<b>Imidan</b>	I	organophosphate	high	mod	low
primicarb	<b>Pirimor</b>	I	Carbamate	mod	mod	mod
prometryne	<b>Gesagrad</b>	H	Triazine	slight	low	low
propiconazole	<b>Topas, Mission</b>	F	Triazole	low	low	low
propyzamide	<b>Kerb</b>	H	Amide	slight	slight	low
pyraclostrobin	<b>Cabrio</b>	F	Qol	low	low	low
rimsulfuron	<b>Prism</b>	H	sulfonylurea	low	slight	slight

rotenone	<b>Rotenone</b>	I	botanical	low	mod	mod
s-metolachlor	<b>Dual Magnum</b>	H	acetanilide	slight	low	low
S-metolachlor/benoxacor	<b>Dual II Magnum</b>	H	acetanilide	slight	low	low
sethoxydim	<b>Poast Ultra</b>	H	cyclohexanedione	slight	low	slight
simazine	<b>Princep Nine-T, Simadex, Simazine</b>	H	triazine	slight	low	slight
spinosad	<b>Success, Entrust</b>	I	naturalyte	mod	slight	slight
spinetoram	<b>Delegate</b>	I	naturalyte	mod	slight	slight
sulfur	<b>Microscopic Sulfur</b>	F	Sulfur	slight	low	low
terbacil	<b>Sinbar</b>	H	Uracil	slight	low	slight
thifensulfuron-methyl	<b>Pinnacle</b>	H	Sulfonylurea	low	slight	low
thifensulfuron-methyl/tribenuron-methyl	<b>Refine Extra</b>	H	Sulfonylurea	low	low	low
thiophanate-methyl	<b>Easout, Senator</b>	F	benzimidazole	slight	slight	slight
trifluralin	<b>Treflan, Rival, Bonanza 400</b>	H	dinitroaniline	slight	low	low
Triflusuron-methyl	<b>Upbeet</b>	H	Sulfonylurea	low	slight	slight
vinclozolin	<b>Ronilan</b>	F	dicarboximide	slight	slight	low
zineb	<b>Zineb</b>	F	dithiocarbamate	low	low	low

Relative toxicity of pesticides based on acute oral, dermal and bee LD <sub>50</sub>			
Acute Toxicity	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Bee LD <sub>50</sub>
High	less than 50 mg/kg	less than 200 mg/kg	< 2 ug/bee
Moderate	50 to 500 mg/kg	200 to 2,000 mg/kg	2 – 10.99 ug/bee
Low	500 - 5000 mg/kg	2,000 – 5,000 mg/kg	11 – 100 ug/bee
Slight to Non-toxic	>5000 mg/kg	>5,000 mg/kg	>100 ug/bee

Reference: EXTOWNET (<http://extownet.orst.edu/pips/ghindex.html> )