

Table 7. Toxicity information for some pesticides commonly used in small fruits[†].

Trade Name ^(tm)	Common Name	Manufacturer	EPA Reg #	Signal Word	REI	Crops (PHI)
INSECTICIDES/MITICIDES						
Acramite	bifentate	Uniroyal	400-503	Caution	12 hrs	S(1), G(14)
*Agri-mek	abamectin	Syngenta	100-898	Warning	12 hrs	S(3), G(21)
*Asana	esfenvalerate	DuPont	352-515	Warning	12 hrs	B(14)
Aza-Direct	azadirachtin	Gowan	71908-1-10163	Caution	4 hrs	S(0), B(0), R(0), G(0)
Biobit	<i>Bacillus thuringiensis</i>	Valent	73049-54	Caution	4 hrs	S(0), R(0), G(0)
*Brigade	bifenthrin	FMC Corp.	279-3108	Warning	4 days ^a	S(0), R(3)
*Capture	bifenthrin	FMC Corp.	279-3069	Warning	4 days ^a	R(3)
Confirm	tebufenozide	Dow AgroSciences	707-238	Caution	4 hrs	B(14), R(14)
*Danitol	fenprothrin	Valent	59639-35	Warning	24 hrs	S(2), G(21)
*Diazinon	diazinon	Various	Various	Caution ^r	24 hrs	S(5), G(28)
Dipel	<i>Bacillus thuringiensis</i>	Valent	73049-39	Caution	4 hrs	S(0), B(0), R(0), G(0)
Dibrom	naled	Amvac	5481-479	Danger/Poison	48-72hrs	S(1), G(3)
*Guthion	azinphos methyl	Bayer CropScience	264-733	Danger/Poison	2-21 days ^b	S(5), B(7), R(14), G(21)
Imidan	phosmet	Gowan	10163-169	Warning	24 hrs	B(3), G(14)
Kelthane	dicofol	Dow AgroSciences	62719-414	Danger ^r	48 hrs	S(3), G(7)
*Lannate	methomyl	DuPont	352-342	Danger ^r	2 - 7 days ^{**}	S(3), B(3), G(14)
*Lorsban	chlorpyrifos	Dow AgroSciences	62719-220	Warning	24 hrs	S(21)
M-Pede	insecticidal soap	Dow AgroSciences	53219-6	Warning	12 hrs	S(0), B(0), R(0), G(0)
Malathion	malathion	Various	Various	Warning	12hrs	S(3), B(1), R(1), G(3)
Phaser	endosulfan	Bayer CropScience	264-638	Danger/Poison	24 hrs	S(4), B(PH), G(7)
PyGanic	pyrethrins	MGK Co.	1021-1771	Caution	12 hrs	S(0), B(0), R(0), G(0)
Pyrellin	pyrethrins/rotenone	Webb Wright Corp.	30573-2	Caution	12 hrs	S(0), B(0), R(0), G(0)
Pyrenone	pyrethrins	Bayer CropScience	432-1033	Caution	12 hrs	S(.5), B(.5), R(.5), G(.5)
Savey	hexythiazox	Gowan	10163-250	Caution	12 hrs	S(3), R(3)
Sevin	carbaryl	Various	Various	Caution	12 hrs	S(7),B(7), R(7), G(7)
*Sniper	azinphos methyl	UAP - Platte	34704-691	Danger/Poison	2-21 days ^b	S(5), B(7), R(14), G(21)
Spintor	spinosad	Dow AgroSciences	62719-294	Caution	4 hrs	S(1), B(3),R(1), G(7)
Stylet Oil (JMS)	Paraffinic oil	JMS Flower Farms	65564-1	Caution	4 hrs	S(0), B(0), R(0), G(0)
Surround	kaolin	Engelhard Corp.	70060-14	Caution	4 hrs	B, R, G ^b
Thiodan	endosulfan	Universal Crop Protection		1386-338-72693	Warning	48 hrs S(4)
Vallero	cinnamaldehyde	Emerald BioAgriculture	58866-12-65626	Caution	4 hrs	S(0), B(0), R(0), G(0)
*Vendex	hexakis	Griffin	1812-413	Danger/Poison	48 hrs	S(1), G(28)
FUNGICIDES						
Abound	azoxystrobin	Syngenta	100-1098	Caution	4 hrs	B(0), G(14)
Armcarb	potassium bicarbonate	Helena	5905-541	Caution	4 hrs	S(0), B(0), R(0), G(0)
Aliette	fosetyl-aluminum	Bayer CropScience	264-516	Caution	12 hrs	S(0), B(0), R(60)
Bayleton	triadimefon	Bayer CropScience	3125-320	Caution	12 hrs	G(14)
Bravo Ultrex	chlorothalonil	Syngenta	50534-201-100	Danger	12hrs	B(42)
Cabrio	pyraclostrobin	BASF	7969-187	Caution	24 hrs	S(0), B(0), R(0)
Captan	captan	Various	Various	Danger	4 days ^{***}	S(0), B(0), G(0)
Dithane	mancozeb	Dow AgroSciences	707-241	Caution	24 hrs	G(66)
Elevate	fenhexamid	Arvesta	66330-35	Caution	12 hrs	S(0), B(0), R(0), G(0)
Elite	tebuconazole	Bayer CropScience	264-749	Warning	12 hrs	G(14)
Ferbam	ferbam	UCB Chemical Corp.	45728-7	Caution	24 hrs	G(7)
Flint	trifloxystrobin	Bayer CropScience	264-777	Caution	12 hrs	G(14)
Kaligreen	potassium bicarbonate	Nichimen America	70231-1	Caution	4 hrs	S(1), B(1), R(1),G(1)
Kocide	copper hydroxide	Griffin	1812-334	Danger	24 hrs	S(0), B(0), R(0)
Kumulus	sulfur	Micro Flo Co.	51036-352	Caution	24 hrs	S(0), B(0), R(0), G(0)
Lime Sulfur	calcium polysulfide	UAP - West	34704-321	Danger	48 hrs	B(0), R(0)
Manzate	mancozeb	Griffin	1812-415	Caution	24 hrs	G(66)
Nova	sythane	Dow AgroSciences	62719-411	Warning ^r	24 hrs	S(0), R(0), G(14)
Oxidate	hydrogen dioxide	Biosafe Systems	70299-2	Danger	0	S(0), B(0), R(0), G(0)
Procure	triflumizole	Uniroyal	400-431	Caution	12 hrs	S(1), G(7)
Quadris	azoxystrobin	Syngenta	100-1098	Caution	4 hrs	S(0),
Ridomil	mefenoxam	Syngenta	100-801	Caution	48 hrs	S(30), B(30), G(45)
Ronilan	vinclozolin	BASF	7969-85	Caution	12 hrs	R(9)
Rovral	iprodione	Bayer CropScience	264-453	Caution	24 hrs	S(PB), B(0), R(0), G(7)
Rubigan	fenarimol	Gowan	62719-134	Warning ^r	12 hrs	G(30)
Serenade	<i>Bacillus subtilis</i>	AgraQuest	69592-7	Caution	4 hrs	B(0), G(0)
Stylet Oil (JMS)	paraffinic oil	JMS Flower Farms	65564-1	Caution	4 hrs	S(0), B(0), R(0), G(14)
Sulfur	sulfur	Various	Various	Caution	24 hrs	S(0), B(0), R(0), G(0)
Switch	cyprodinil/fludioxonil	Syngenta	100-953	Caution	12 hrs	S(0)

GENERAL INFORMATION

Table 7. Toxicity information for some pesticides commonly used in small fruits[†].

Trade Name ^(m)	Common Name	Manufacturer	EPA Reg #	Signal Word	REI	Crops (PHI)
FUNGICIDES CONTINUED ...						
Syllit	dodine	UAP - Platte	55260-5-34704	Danger	48 hrs	S(14)
Thiolux	sulfur	UAP West	100-835	Caution	24 hrs	S(0), B(0), R(0), G(0)
Thiram	thiram	UCB Chem Corp.	45728-24	Caution	24 hrs	S(3)
Topsin-M	thiophanate-methyl	Cerexagri	4581-403	Caution	12 hrs	S(1)
Trilogy	neem oil	Certis USA	70051-2	Caution	4 hrs	S(0), B(0), R(0), G(0)
Vanguard	cyprodinil	Syngenta	100-828	Caution	12 hrs	G(7)
Ziram	ziram	Cerexagri	4581-140	Danger	48 hrs	B(ns), G(21)
HERBICIDES						
Casoron	dichlobenil	Uniroyal	400-168	Caution	12 hrs	B(ns), G(ns)
Dacthal	DCPA	Amvac Chem. Co.	5481-490	Caution	12 hrs	S(ns)
Devrinol	napropamide	United Phosphorus Inc.	100-1035-70506	Caution	12 hrs	S(ns), B(ns), R(ns), G(ns)
Formula 40	2,4-D	Nufarm Americas	228-357	Danger	48 hrs	S(ns)
Fusilade	fluzafob	Syngenta	100-1070	Caution	12 hrs	S(nb), B(nb), R(nb), G(nb)
Gallery	isoxaben	Dow AgroSciences	62719-145	Caution	12 hrs	B(nb), R(nb), G(nb)
Goal	oxyfluorfen	Dow AgroSciences	62719-424	Danger	24 hrs	S(pp), G(nb)
*Gramoxone Extra	paraquat	Syngenta	10182-280	Danger	24 hrs	S(21), B(21), R(21), G(ns)
Karmex	diuron	Griffin	1812-362	Caution	12 hrs	B(ns), R(ns), G(ns)
*Kerb	pronamide	Dow AgroSciences	707-159	Caution	24 hrs	B(ns), R(ns), G(ns)
Poast	sethoxydim	BASF	7969-58	Warning	12 hrs	S(7), B(30), R(45), G(50)
Princep	simazine	Syngenta	100-526	Caution	12 hrs	B(pf), R(pf), G(pf)
Rely	glufosinate ammonium	Bayer CropScience	264-652	Warning	12 hrs	G(14)
Roundup	glyphosate	Monsanto	524-445	Warning	12 hrs	B(14), R(14), G(14)
Scythe	pelargonic acid	Dow AgroSciences	53219-7	Warning	12 hrs	S(0), B(0), R(0), G(0)
Select	clethodim	Valent	59639-3	Warning	24 hrs	S(4), B(nb)
Sinbar	terbacil	Dupont	352-317	Caution	12 hrs	S(70), B(70), R(70)
Solicam	norflurazon	Syngenta	100-849	Caution	12 hrs	B(60), R(60), G(60)
Surflan	oryzalin	Dow AgroSciences	62719-112	Caution	24 hrs	B(ns), R(ns), G(ns)
Touchdown	sulfosate	Syngenta	100-1117	Caution	12 hrs	B(30), R(30), G(30)

^{††}See below for description of toxicity class and signal word.

^{†††}potassium salts of fatty acids

^hno preharvest interval is required but application close to harvest is not recommended because of persistent residues.

^hREI varies up to 21 days for different crops and different activities. Check the label.

ns= phi not specified, may be dictated by use pattern; nb=for use on non-bearing fields; pp=labeled for pre-plant applications; pf=labeled for pre-fruit formation application;

TOXICITY CATEGORY	SIGNAL WORDS* REQUIRED ON LABEL	ORAL LD ₅₀ (MG/KG)	PROBABLE LETHAL ADULT HUMAN DOSE
I Highly Toxic	DANGER and POISON, plus skull and crossbones symbol	0 to 50	A few drops to 1 tsp
II Moderately Toxic	Warning	50 to 500	1 tsp to 2 tsp
III Slightly Toxic	Caution	500 to 5,000	1 oz to 1 pint (1 lb)
IV Almost non-toxic	Caution	more than 5,000	1 pint (1 lb)

***Please Note** : certain products may use signal words which do not correlate with LD₅₀ ratings due to some special property of the chemical. For example, chlorothalonil has a very low toxicity (LD50 10,000 mg/kg) yet had DANGER and WARNING signal words on many of its formulations, due to a possibility of an extreme allergic reaction in some people.