

Table D.1
Agricultural Chemicals Highly Toxic to Bees – Do Not Apply to Blooming Crops or Bees

ACTIVE INGREDIENT	RESIDUAL TOXICITY	ACTIVE INGREDIENT	RESIDUAL TOXICITY
2, 4-D		Fonfos	
Abamectin/Avermectrin	3 days	Formetanate HCl	14 hours
Acephate	> 3 days	Gamma-cyhalothrin	> 1 day
Azinphos-Methyl	4 days	Imidacloprid	1 day
<i>Beauveria bassiana</i>	> 1 day	Lambda-cyhalothrin	>1 day
Bendiocarb	> 1 day	Lindane	
Bifenthrin	> 1 day	Malathion	3 days for emulsifiable concentrate; 6 days for ultra low volume sprays
Carbaryl	14 days for dusts; 7 days for wettable powders	Methamidophos	5 days
Carbofuran	14 days	Methidathion	3 days
Chloropicrin*		Methomyl	1 day
Chlorpyrifos	7 days	Methyl bromide*	
Clothianidin		Methyl parathion	1 day for emulsifiable concentrate; 8 days for micro-encapsulated
Cyfluthrin	> 1 day	Mevinphos	
Cypermethrin	3 days	Naled	5 days
Cyromazine	> 1 day	Novaluron	
Diazinon	2 days	Oxamyl	2 day
Dichlorvos	>1 day	Oxydemeton-methyl	< 2 hours
Dicrotophos		Permethrin	3 days
Diflubenzuron		Phosmet	5 days
Dimethoate	> 3 days	Pirimiphos-methyl	9 hours
Disulfoton	13 hours	Propoxur	1 day
Endosulfan	3 days	Pyridaben	> 8 hours
Esfenvalerate	1 day	Resmethrin	
Ethion		Spinosad	> 1 day
Fenitrothion		Spirodiclofen	
Fenthion		Tetrachlorvinphos	1 day
Fenoxycarb	1 day	Thiamethoxam	
Fenpropathrin	> 1 day	Thiodicarb	> 8 hours
Fenvalerate	1 day	Zeta-cypermethrin	> 1 day
Fipronil	> 1 day		

* Kills ground-nesting bees