

## ALTERNATIVES TO NEONICOTINOIDS INSECTICIDES FOR USE IN NURSERIES

The following list of insecticides was compiled in order to provide applicators with a list of alternatives to the use of neonicotinoids for insect pest control in nurseries. This list is not exhaustive and is subject to change based on existing, and future regulatory changes, as well as scientific data. Although these insecticides do not contain neonicotinoids, some of the active ingredients are still highly toxic to pollinators. If at any time you are unsure about the use of one of these products, contact the Oregon Department of Agriculture at 503.986.4713, or the National Pesticide Information Center (NPIC), at 1.800.858.7378 (Italics denote restricted use pesticides)

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
1600 X-CLUDE FORMULA 2	499-539	PYRETHRINS	0.50%	IRAC	3	WHITMIRE MICRO-GEN RESEARCH LABS	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	<2 hours RT, can vary with formulation and application rate [1]
ACARITOUCH -OTSUKA AGRITECHNO CO-	11581-3	PROPYLENEGLYCOL MONOLAURATE	70.81%			OTSUKA AGRITECHNO CO LTD	Carbohydrates	No bee toxicity statement on label	No Residual Toxicity Information Available
ACEPHATE 90 PRILL - AG & FIRE ANT INSECTICIDE	66222-123	ACEPHATE (ORGANOPHOSPHATE)	90.00%	IRAC	1	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
ACEPHATE 90 WDG	34704-1051	ACEPHATE (ORGANOPHOSPHATE)	90.00%	IRAC	1	LOVELAND PROD./CROP PROTECTION SVCS	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
ACEPHATE 97 DF	85678-26	ACEPHATE (ORGANOPHOSPHATE)	97.00%	IRAC	1	REDEAGLE INTERNATIONAL LLC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
ACEPHATE 97% PRILLS	83222-31	ACEPHATE (ORGANOPHOSPHATE)	97.00%	IRAC	1	DIRECT AG SOURCE -R3 AG-	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
ACEPHATE 97UP INSECTICIDE	70506-8	ACEPHATE (ORGANOPHOSPHATE)	97.00%	IRAC	1	UNITED PHOSPHORUS INC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
AGRISOLUTIONS BRACKET 90 WDG WATER DISPERSIBLE GRANULES	84229-7-1381	ACEPHATE (ORGANOPHOSPHATE)	90.00%	IRAC	1	WINFIELD SOLUTIONS LLC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
AGRISOLUTIONS BRACKET 97	5481-8978-1381	ACEPHATE (ORGANOPHOSPHATE)	97.40%	IRAC	1	WINFIELD SOLUTIONS LLC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
AGRISOLUTIONS DIMATE 4E INSECTICIDE	19713-231-9779	DIMETHOATE (ORGANOPHOSPHATE)	43.50%	IRAC	1	WINFIELD SOLUTIONS LLC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Up to 3 days ERT, can vary with formulation and application rate [1]
AGRISOLUTIONS DIMATE 4E SYSTEMIC INSECTICIDE	9779-273	DIMETHOATE (ORGANOPHOSPHATE)	43.50%	IRAC	1	WINFIELD SOLUTIONS LLC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Up to 3 days ERT, can vary with formulation and application rate [1]
AKARI 5SC MITICIDE/INSECTICIDE	71711-4-67690	FENPYROXIMATE	5.00%	IRAC	21	SEPRO CORPORATION	Pyrazole	Fenpyroximate is practically nontoxic to bees and wasps when fenpyroximate is applied to listed crops according to the label directions	No Residual Toxicity Information Available
AMAZIN 1.2% ME PLUS -OMRI-	5481-559	AZADIRACHTIN	1.20%	IRAC	un	AMVAC CHEMICAL CORP.	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
AMBUSH 25W INSECTICIDE	5481-502	PERMETHRIN	25.00%	IRAC	3	AMVAC CHEMICAL CORP.	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
AMBUSH INSECTICIDE	5481-549	PERMETHRIN	25.60%	IRAC	3	AMVAC CHEMICAL CORP.	Pyrethroid	This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
AMVAC ORTHENE TURF TREE & ORNAMENTAL 97 SPRAY	5481-8978	ACEPHATE (ORGANOPHOSPHATE)	97.40%	IRAC	1	AMVAC CHEMICAL CORP.	Organophosphate	This product and its degradate are highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT <i>can vary with formulation and application rate</i> [1]
AMVAC ORTHENE TURF TREE & ORNAMENTAL WSP	5481-8971	ACEPHATE (ORGANOPHOSPHATE)	75.00%	IRAC	1	AMVAC CHEMICAL CORP.	Organophosphate	This product and its degradate are highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT <i>can vary with formulation and application rate</i> [1]
ARIA INSECTICIDE	279-3287	FLONICAMID	50.00%	IRAC	9	FMC CORP - AG PRODUCTS GROUP	Pyridincarboxamids	No bee toxicity statement on label	Possible effects on honey bees, more research needed [1]
ARTIC 3.2 EC INSECTICIDE	1381-187	PERMETHRIN	36.80%	IRAC	3	WINFIELD SOLUTIONS LLC	Pyrethroid	This product and its degradate are highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
AVATAR INSECTICIDE	81964-2-81943	ACEPHATE (ORGANOPHOSPHATE)	75.00%	IRAC	1	PHOENIX ENVIRONMENTAL CARE	Organophosphate	This product and its degradate are highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT <i>can vary with formulation and application rate</i> [1]
AZA-DIRECT BIOLOGICAL INSECTICIDE	71908-1-10163	AZADIRACTIN	1.20%	IRAC	un	GOWAN CO.	Botanical: IGR	No bee toxicity statement on label	Toxic to Bees <2 hours RT <i>can vary with formulation and application rate</i> [1]
AZAGUARD BOTANICAL INSECTICIDE/NEMATOCIDE	70299-17	AZADIRACTIN	3.00%	IRAC	un	BIOSAFE SYSTEMS	Botanical: IGR	No bee toxicity statement on label	Toxic to Bees <2 hours RT <i>can vary with formulation and application rate</i> [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
AZAMAX AG 0.6	71908-5-81268	AZADIRACTIN	0.60%	IRAC	un	PARRY AMERICA	Botanical: IGR	No bee toxicity statement on label	Toxic to Bees <2 hours RT <i>can vary with formulation and application rate</i> [1]
AZATIN O	70051-9-59807	AZADIRACTIN	4.50%	IRAC	un	OHP INC.	Botanical: IGR	No bee toxicity statement on label	Toxic to Bees <2 hours RT <i>can vary with formulation and application rate</i> [1]
AZATIN XL BIOLOGICAL INSECTICIDE	70051-27-59807	AZADIRACTIN	3.00%	IRAC	un	OHP INC.	Botanical: IGR	No bee toxicity statement on label	Toxic to Bees <2 hours RT <i>can vary with formulation and application rate</i> [1]
<b>BIFEN 2 AG GOLD RESTRICTED USE PESTICIDE</b>	83222-1	BIFENTHRIN	25.10%	IRAC	3	DIRECT AG SOURCE -R3 AG-	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >0.06 lb ai/acre, >1 day ERT ≤0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<b>BIFEN 25% EC INSECTICIDE / MITICIDE RESTRICTED USE PESTICIDE</b>	83520-4	BIFENTHRIN	25.00%	IRAC	3	TACOMA AG. LLC	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >0.06 lb ai/acre, >1 day ERT ≤0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
BIOBIT HP BIO INSECTICIDE WETTABLE POWDER/ORGANIC PRODUCTION [34]	73049-54	BACILLUS THURINGIENSIS SSP. KURSTAKI 1	58.20%	IRAC	11	VALENT BIOSCIENCES CORP.	Biological	This product must not be applied aerially within 1/2 mile of any habitats of threatened or endangered lepidoptera. No manual application can be made within 300 feet of any threatened or endangered lepidoptera.	No Residual Toxicity Information Available
BIOCOVER SS	34704-809	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	98.00%	FRAC	NC	LOVELAND PROD./CROP PROTECTION SVCS	Petroleum Hydrocarbon	No bee toxicity statement on label	<3 hours RT25 (can vary with formulation and application rate) [1]
BIOCOVER UL	34704-806	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	98.00%	FRAC	NC	LOVELAND PROD./CROP PROTECTION SVCS	Petroleum Hydrocarbon	No bee toxicity statement on label	<3 hours RT25 (can vary with formulation and application rate) [1]
BIOMITE	70057-1	CITRONELLA OIL	0.42%			NATURAL PLANT PROTECTION	Petroleum Hydrocarbon	No bee toxicity statement on label	<3 hours RT25 (can vary with formulation and application rate) [1]
BIOMITE	70057-1	FARNESOL	0.17%			NATURAL PLANT PROTECTION	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
BIOMITE	70057-1	GERANIOL	0.42%			NATURAL PLANT PROTECTION	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
BIOMITE	70057-1	NEROLIDOL	0.42%			NATURAL PLANT PROTECTION	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<b><i>BISECT G RESTRICTED USE PESTICIDE</i></b>	34704-957	BIFENTHRIN	0.20%	IRAC	3	LOVELAND PROD./CROP PROTECTION SVCS	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >0.06 lb ai/acre, >1 day ERT ≤0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
BONIDE CYPER EIGHT INSECT CONTROL	4-427	CYPERMETHRIN	26.00%	IRAC	3	BONIDE PRODUCTS INC	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.025 lb ai/acre, >3 days ERT, <0.025 lb ai/acre <2 hours RT can vary with formulation and application rate. Incompatible with bumble bees [1]
BONIDE INSECTICIDAL MULTI-PURPOSE INSECT CONTROL SOAP CONC	67702-11-4	POTASSIUM LAURATE	47%			BONIDE PRODUCTS INC	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
BONIDE INSECTICIDAL SOAP MULTI-PURPOSE INSECT CONTROL R-T-U /ORGANIC GARDENING	67702-13-4	POTASSIUM LAURATE	1%			BONIDE PRODUCTS INC	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
BOTANIGARD 22WP	82074-2	BEAUVERIA BASSIANA GHA	22%			LAVERLAM INTERNATIONAL CORPORATION	Microbiological	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Potentially pathogenic to honey bees, and laboratory studies suggest effects on bumble bees [1]
BOTANIGARD ES	82074-1	BEAUVERIA BASSIANA GHA	11.30%			LAVERLAM INTERNATIONAL CORPORATION	Microbiological	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Potentially pathogenic to honey bees, and laboratory studies suggest effects on bumble bees [1]
BRACKET 97 INSECTICIDE	70506-8-1381	ACEPHATE (ORGANOPHOSPHATE)	97%	IRAC	1	WINFIELD SOLUTIONS LLC	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
BRANDT SLUGGO PLUS T&O	67702-24-48813	IRON PHOSPHATE (FEPO4)	0.97%			BRANDT CONSOLIDATED	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
BRANDT SLUGGO PLUS T&O	67702-24-48813	SPINOSAD (SPINOSYN A+D)	0.07%	IRAC	5	BRANDT CONSOLIDATED	Spinosyn	No bee toxicity statement on label	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
BUG-N-SLUGGO INSECT SLUG & SNAIL BAIT /ORGANIC PRODUCTION	67702-24-70051	IRON PHOSPHATE (FEPO4)	0.97%			CERTIS USA LLC	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
BUG-N-SLUGGO INSECT SLUG & SNAIL BAIT /ORGANIC PRODUCTION	67702-24-70051	SPINOSAD (SPINOSYN A+D)	0.07%	IRAC	5	CERTIS USA LLC	Spinosyn	No bee toxicity statement on label	Highly Toxic to Bees >3 days ERT can vary with formulation and application rate [1]
CARBARYL 4L INSECTICIDE	34704-447	CARBARYL (CARBAMATE)	43.00%	IRAC	1	LOVELAND PROD./CROP PROTECTION SVCS	Carbamate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Carbaryl is highly toxic to bees. Residual toxicity varies with formulation and application rate. Bees are unlikely to be exposed to granular and bait formulations [1]
CHLORPYRIFOS 4E AG INSECTICIDE	66222-19	CHLORPYRIFOS (ORGANOPHOSPHATE)	42.50%	IRAC	1	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Organophosphate	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Organophosphate is highly toxic to bees. RT and ERT rates vary depending upon formulation and application rate. (EC 4-6 days ERT, ULV 0.05 lb ai/acre or less <2 hours RT) [1]
CINNACURE	58866-12	CINNAMALDEHYDE	30%			PROGUARD INC	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>COMPARE-N-SAVE CONC IN/OUTDOOR INSECT CONTROL RESTRICTED USE PESTICIDE</b>	228-451-84009	BIFENTHRIN	7.90%	IRAC	3	RAGAN & MASSEY INC.	Pyrethroid	This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Highly Toxic to Bees >0.06 lb ai/acre, >1 day ERT ≤0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate)
CONCERN INSECT KILLING SOAP CONC.	50932-3	POTASSIUM LAURATE	19.90%			WOODSTREAM CORP.	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
CONSERVE SC T&O	62719-291	SPINOSAD (SPINOSYN A+D)	11.60%	IRAC	5	DOW AGROSCIENCES LLC	Spinosyn	This product is toxic to bees following the 3 hours after treatment. Do not apply this pesticide to blooming, pollen-shedding, or nectar producing parts of plants if bees may forage on the plants during this time period.	Highly Toxic to Bees >3 days ERT <i>can vary with formulation and application rate</i> [1]
<b>CROPSMART PERMETHRIN 3.2 EC RESTRICTED USE PESTICIDE</b>	83772-6-85945	PERMETHRIN	36.08%	IRAC	3	CROPSMART LLC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
CRYMAX BIOINSECTICIDE	70051-86	BACILLUS THURINGIENSIS SSP. KURSTAKI 7841	40.00%	IRAC	11	CERTIS USA LLC	Microbiological	This product must not be applied aerially within 1/4 mile of any habitat of endangered or threatened Lepidoptera, No manual application can be made within 300 ft. of any threatened or endangered Lepidoptera.	No Residual Toxicity Information Available
DAMOIL DORMANT & SUMMER SPRAY OIL	19713-123	MINERAL OIL/PETROLEUM DISTILLATE KEROSENE	98.00%	FRAC	NC	DREXEL CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	<3 hours RT25 (can vary with formulation and application rate) [1]
DAZITOL CONC	61966-4-87865	CAPSAICIN	0.42%			ENGAGE AGRO USA	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>CROPSMART PERMETHRIN 3.2 EC RESTRICTED USE PESTICIDE</b>	432-1402-59807	CYFLUTHRIN	20%	IRAC	3	OHP INC.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not allow it to drift onto crops or weeds on which bees are actively foraging. Additional information may be obtained by consulting your Cooperative Extension Service.	>1 day ERT [1] Incompatible with bumble bees
DES-X INSECTICIDAL SOAP CONC /ORGANIC PRODUCTION	67702-22-70051	POTASSIUM LAURATE	47.00%			CERTIS USA LLC	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>DIAZINON 50W RESTRICTED USE PESTICIDE</b>	66222-10	DIAZINON (ORGANOPHOSPHATE)	50%	IRAC	1	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<i>DIAZINON AG500 INSECTICIDE RESTRICTED USE PESTICIDE</i>	66222-9	DIAZINON (ORGANOPHOSPHATE)	48.00%	IRAC	1	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>DIAZINON AG600 WBC INSECTICIDE RESTRICTED USE PESTICIDE</i>	66222-103-34704	DIAZINON (ORGANOPHOSPHATE)	56.00%	IRAC	1	LOVELAND PROD./CROP PROTECTION SVCS	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>DIMETHOATE 400 RESTRICTED USE PESTICIDE</i>	66222-9	DIMETHOATE (ORGANOPHOSPHATE)	43.50%	IRAC	1	LOVELAND PROD./CROP PROTECTION SVCS	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>DIMETHOATE 4E RESTRICTED USE PESTICIDE</i>	66330-223	DIMETHOATE (ORGANOPHOSPHATE)	43.50%	IRAC	1	ARYSTA LIFESCIENCE NORTH AMERICA	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
DIPEL PRO DF BIOLOGICAL INSECTICIDE DRY FLOW	73049-39	BACILLUS THURINGIENSIS SSP. KURSTAKI 1	54%	IRAC	11	VALENT BIOSCIENCES CORP.	Microbiological	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	No Residual Toxicity Information Available
DREXEL CARBARYL 4L INSECTICIDE	19713-49	CARBARYL (CARBAMATE)	43.40%	IRAC	1	DREXEL CHEMICAL COMPANY	Carbamate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	Carbaryl is highly toxic to bees. Residual toxicity varies with formulation and application rate. Bees are unlikely to be exposed to granular and bait formulations [1]
DREXEL DIMETHOATE 4EC SYSTEMIC INSECTICIDE/MITICIDE	19713-231	DIMETHOATE (ORGANOPHOSPHATE)	43.50%	IRAC	1	DREXEL CHEMICAL COMPANY	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>DURSBAN 50W IN WSP SPECIALTY INSECTICIDE RESTRICTED USE PESTICIDE</i>	62719-72	CHLORPYRIFOS (ORGANOPHOSPHATE)	50%	IRAC	1	DOW AGROSCIENCES LLC	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]



PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
EARTH OPTIONS BY RAID INSECTICIDAL SOAP -OMRI-	67702-21-4822	POTASSIUM LAURATE	1%			SC JOHNSON & SON INC	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available
EARTH-TONE INSECT CONTROL CONC.	67702-5-83598	CANOLA OIL	89.50%			ESPOMA COMPANY THE	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
EARTH-TONE INSECT CONTROL CONC.	67702-5-83598	PYRETHRINS	0.50%	IRAC	3	ESPOMA COMPANY THE	Pyrethroid	No bee toxicity statement on label	<2 hours RT, can vary with formulation and application rate [1]
EARTH-TONE INSECTICIDAL SOAP /ORGANIC PRODUCTION	67702-21-83598	POTASSIUM LAURATE	1.00%			ESPOMA COMPANY THE	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available
EARTH-TONE INSECTICIDAL SOAP CONC. /ORGANIC PRODUCTION	67702-22-83598	POTASSIUM LAURATE	47.00%			ESPOMA COMPANY THE	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available
ECO E-RASE	68186-1	JOJOBA OIL	97.50%			IJO PRODUCTS LLC	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
ECOTEC BROAD SPECTRUM INSECTICIDE & MITICIDE	48813-09001	PEPPERMINT	2.00%			BRANDT CONSOLIDATED	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
ECOTEC BROAD SPECTRUM INSECTICIDE & MITICIDE	48813-09001	ROSEMARY OIL	10.00%			BRANDT CONSOLIDATED	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
ENDEAVOR INSECTICIDE	100-913	PYMETROZINE	50%	IRAC	9	SYNGENTA CROP PROTECTION INC.	Pyridine Azomethines	Endeavor is suitable for Integrated Pest Management (IPM) programs as it has a low toxicity to beneficial insect (including honeybees and bumblebees) and mite populations.	<2 hours RT, can vary with formulation and application rate, some toxicity observed in field studies [1]
ENFORCER OVER NITE PEST CONTROL CONC	73049-154-40849	CYPERMETHRIN	26.00%	IRAC	3	ZEP COMMERCIAL SALES&SERVICE	Pyrethroid	No bee toxicity statement on label	>0.025 lb ai/acre, >3 days ERT, <0.025 lb ai/acre <2 hours RT can vary with formulation and application rate. Incompatible with bumble bees [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
ENTRUST SC	62719-621	SPINOSAD (SPINOSYN A+D)	22.50%	IRAC	5	DOW AGROSCIENCES LLC	Spinosyn	This product is toxic to bees following the 3 hours after treatment. Do not apply this pesticide to blooming, pollen-shedding, or nectar producing parts of plants if bees may forage on the plants during this time period.	3 hours RT to 1 day ERT, can vary with formulation and application rate [1]
EVERGREEN PYRETHRUM CONC	1021-2560	PYRETHRINS	5.00%	IRAC	3	MCLAUGHLIN GORMLEY KING	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply insecticide or allow it to drift onto crops or weeds on which bees are actively foraging.	<2 hours RT, can vary with formulation and application rate [1]
EVERGREEN PYRETHRUM DUST	1021-1871	PYRETHRINS	1.00%	IRAC	3	MCLAUGHLIN GORMLEY KING	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not allow it to drift onto crops or weeds on which bees are actively foraging.	<2 hours RT, can vary with formulation and application rate [1]
EVERRIS OVATION SC	66222-53-58185	CLOFENTEZINE	42%	IRAC	10	EVERRIS NA INC	Tetrazine	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>FIREBIRD PRO RESTRICTED USE PESTICIDE</b>	70506-256	BIFENTHRIN	7.90%	IRAC	3	UNITED PHOSPHORUS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not allow it to drift onto crops or weeds on which bees are actively foraging.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<b>FIREBIRD PRO INSECTICIDE RESTRICTED USE PESTICIDE</b>	81943-9	BIFENTHRIN	7.90%	IRAC	3	PHOENIX ENVIRONMENTAL CARE	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not allow it to drift onto crops or weeds on which bees are actively foraging.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with product and application rate) [1]
FIRST CHOICE NARROW RANGE 415 SPRAY OIL	34704-1025	MINERAL OIL/PETROLEUM DISTILLATE	98.00%	FRAC	NC	LOVELAND PROD./CROP PROTECTION SVCS	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
FIRST CHOICE PERMETHRIN CUTWORM BAIT	34704-1027	PERMETHRIN	0.50%	IRAC	3	LOVELAND PROD./CROP PROTECTION SVCS	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not allow it to drift onto crops or weeds on which bees are actively foraging.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
FORAY XG BIOLOGICAL INSECTICIDE	73049-46	BACILLUS THURINGIENSIS SSP. KURSTAKI 1	17.19%	IRAC	11	VALENT BIOSCIENCES CORP.	Microbiological	No bee toxicity statement on label	No Residual Toxicity Information Available
GLACIAL SPRAY FLUID	34704-849	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	98.40%	FRAC	NC	LOVELAND PROD./CROP PROTECTION SVCS	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
GNATROL	73049-11	BACILLUS THURINGIENSIS SSP. ISRAELENENSIS	6.38%	IRAC	11	VALENT BIOSCIENCES CORP.	Microbiological	No bee toxicity statement on label	No Residual Toxicity Information Available
GORDONS PRO T&O AZATROL EC INSECTICIDE	2217-836	AZADIRACTIN	1.20%	IRAC	un	PBI/GORDON CORPORATION	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
GOWAN CRYOLITE BAIT	10163-225	CRYOLITE	20%	IRAC	un	GOWAN CO.	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
GRANDEVO	84059-17	CHROMOBACTERIUM SUB STRAIN PRAA4-1 CELLS	30.00%			MARRONE BIO INNOVATIONS -TSG-	Microbiological	This product is toxic to certain nontarget terrestrial arthropods. Minimize spray drift away from target area to reduce effects to nontarget insects.	No Residual Toxicity Information Available
HEXYGON DF OVICIDE/MITICIDE	10163-251	HEXYTHIAZOX	50.00%	IRAC	10	GOWAN CO.	Thiazolidine	No bee toxicity statement on label	No Residual Toxicity Information Available
JUDO MITICIDE/INSECTICIDE	432-1280-59807	SPIROMESIFEN	45.20%	IRAC	23	OHP INC.	Tetromic Acid	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>LAMBDA SELECT RESTRICTED USE PESTICIDE</b>	86869-5	LAMBDA-CYHALOTHRIN	13.00%	IRAC	3	SELECT SOURCE	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.013 lbs/A on Alfalfa RT <sub>25</sub> 0.031 on alfalfa at RT <sub>25</sub> of 54
<b>LAMBDA-CY EC INSECTICIDE-RUP RESTRICTED USE PESTICIDE</b>	70506-121	LAMBDA-CYHALOTHRIN	11.40%	IRAC	3	UNITED PHOSPHORUS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	0.013 lbs/A on Alfalfa RT <sub>25</sub> 0.031 on alfalfa at RT <sub>25</sub> of 54
<b>LAMCAP RESTRICTED USE PESTICIDE</b>	100-1112	LAMBDA-CYHALOTHRIN	11.40%	IRAC	3	SYNGENTA CROP PROTECTION INC.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	0.013 lbs/A on Alfalfa RT <sub>25</sub> 0.031 on alfalfa at RT <sub>25</sub> of 54
LEAF LIFE GAVICIDE GREEN 415 /ORGANIC PRODUCTION	34704-1028	MINERAL OIL/PETROLEUM DISTILLATE	98.00%	FRAC	NC	LOVELAND PROD./CROP PROTECTION SVCS	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
LESCO CROSS X CHECK PLUS MULTI-INSECTICIDE RESTRICTED USE PESTICIDE	279-3206-10404	BIFENTHRIN	7.90%	IRAC	3	LESCO INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
LESCO HORTICULTURAL OIL INSECTICIDE	10404-66	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	98.80%	FRAC	NC	LESCO INC	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
LOVELAND NARROW RANGE 415 SPRAY OIL	34704-1025	MINERAL OIL/PETROLEUM DISTILLATE	98.00%	FRAC	NC	LOVELAND PROD./CROP PROTECTION SVCS	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
LOVELAND PERMETHRIN CUTWORM BAIT	34704-1027	PERMETHRIN	0.50%	IRAC	3	LOVELAND PROD./CROP PROTECTION SVCS	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
M-PEDE INSECTICIDE/FUNGICIDE -OMRI-	62719-515	POTASSIUM LAURATE	49%			DOW AGROSCIENCES LLC	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
M-PEDE	10163-324	POTASSIUM LAURATE	49.00%			GOWAN CO.	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
MALATHION 5EC	66330-220	MALATHION	56.00%	IRAC	1	ARYSTA LIFESCIENCE NORTH AMERICA	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
MASTER NURSERY PEST FIGHTER RTU YEAR-ROUND SPRAY OIL /ORGANIC GARDENING [8]	6218-78	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	1.00%	FRAC	NC	SUMMIT CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
MASTER NURSERY PEST FIGHTER YEAR-ROUND SPRAY OIL /ORGANIC GARDENING [5]	6218-71	MINERAL OIL/PETROLEUM DISTILLATE	98.80%	FRAC	NC	SUMMIT CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
MAVRİK AQUAFLOW INSECTICIDE/MITICIDE	2724-478	TAU-FLUVALINATE	22.30%			WELLMARK INTERNATIONAL	Pyrethroid	No bee toxicity statement on label	<2 hours RT 1/2 day ERT, can vary with formulation and application rate [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<i>MBC-33 SOIL FUMIGANT RESTRICTED USE PESTICIDE</i>	8853-3-11220	CHLOROPICRIN	32.80%	IRAC	8	TRICAL INC	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
<i>MBC-33 SOIL FUMIGANT RESTRICTED USE PESTICIDE</i>	8853-3-11220	METHYL BROMIDE	67.00%	IRAC	8	TRICAL INC	Organobromine	No bee toxicity statement on label	No Residual Toxicity Information Available
MBI-203 EP BIOINSECTICIDE	84059-10	CHROMOBACTERIUM SUB STRAIN PRAA4-1 CELLS	94.50%			MARRONE BIO INNOVATIONS -TSG-	Microbiological	This product is toxic to certain nontarget terrestrial arthropods. Minimize spray drift away from target area to reduce effects to nontarget insects.	No Residual Toxicity Information Available
<i>MENACE 7.9% FLOWABLE RESTRICTED USE PESTICIDE</i>	228-451	BIFENTHRIN	7.90%	IRAC	3	NUFARM AMERICAS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<i>MENACE GC 7.9% FLOWABLE RESTRICTED USE PESTICIDE</i>	228-458	BIFENTHRIN	7.90%	IRAC	3	NUFARM AMERICAS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<i>MERAZ MITICIDE WSP RESTRICTED USE PESTICIDE</i>	70506-211	FENBUTATIN-OXIDE	50%	IRAC	12	UNITED PHOSPHORUS INC	Organotin	No bee toxicity statement on label	No Residual Toxicity Information Available
<i>MESUROL 75-W RESTRICTED USE PESTICIDE</i>	10163-231	METHIOCARB (CARBAMATE)	75%	IRAC	1	GOWAN CO.	Carbamate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	No Residual Toxicity Information Available
MET52 GRANULAR BIOINSECTICIDE	70127-8	METARHIZIUM ANISOPLIAE STRAIN F52	2.00%			NOVOZYMES BIOLOGICALS INC.	Microbiological	Do not use near endangered insect habitat	No Residual Toxicity Information Available
MET52EC BIOINSECTICIDE	70127-10	METARHIZIUM ANISOPLIAE STRAIN F52	11.00%			NOVOZYMES BIOLOGICALS INC.	Microbiological	Do not use near endangered insect habitat	No Residual Toxicity Information Available
MITE-E-OIL INSECTICIDE-MITICIDE/SPRAY	5905-302	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	90.00%	FRAC	NC	HELENA CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<i>MOCAP EC NEMATICIDE-INSECTICIDE RESTRICTED USE PESTICIDE</i>	264-458	ETHOPROP	69.60%			BAYER CROPSCIENCE LP	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>MOCAP EC RESTRICTED USE PESTICIDE</i>	5481-9041	ETHOPROP	69.60%			AMVAC CHEMICAL CORP.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
MOLT-X	68539-11	AZADIRACTIN	3.00%	IRAC	un	BIOWORKS INC	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
MONTEREY HORTICULTURAL OIL	48813-1-54705	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	80%	FRAC	NC	LAWN & GARDEN PRODUCTS INC.	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
MONTEREY TURF & ORNAMENTAL INSECT SPRAY	228-459-54705	BIFENTHRIN	2.40%	IRAC	3	LAWN & GARDEN PRODUCTS INC.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<i>MSR SPRAY CONCENTRATE RESTRICTED USE PESTICIDE</i>	10163-220	OXYDEMETON METHYL	25.00%	IRAC	1	GOWAN CO.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
MYCOTROL O	82074-3	BEAUVERIA BASSIANA GHA	10.90%			LAVERLAM INTERNATIONAL CORPORATION	Microbiological	This pesticide is potentially pathogenic to bees. Do not apply where bees are actually foraging or around bee hives.	No Residual Toxicity Information Available
NATURAL GUARD INSECTICIDAL SOAP	67702-22-7401	POTASSIUM LAURATE	47.00%			VOLUNTARY PURCHASING GROUPS	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
NATURAL GUARD R-T-U INSECTICIDAL SOAP	67702-21-7401	POTASSIUM LAURATE	1%			VOLUNTARY PURCHASING GROUPS	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
NATURES CARE INSECTICIDAL SOAP	67702-21-62355	POTASSIUM LAURATE	1%			MIRACLE-GRO LAWN PROD INC	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available
NATURES CARE INSECTICIDAL SOAP1	67702-21-62355	POTASSIUM LAURATE	1%			MIRACLE-GRO LAWN PROD INC	Soap Salts	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
NEEMAZAD 1% EC INSECT GROWTH REGULATOR /ORGANIC PRODUCTION	70051-104	AZADIRACTIN	1.00%	IRAC	un	CERTIS USA LLC	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
NEEMIX 4.5 IGR	70051-9	AZADIRACTIN	4.50%	IRAC	un	CERTIS USA LLC	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
NIMBIOSYS NEEM OIL /ORGANIC PRODUCTION	84181-2	NEEM OIL COLD PRESSED	100.00%			AHIMSA ALTERNATIVE INC. THE	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
NOVASOURCE SURROUND WP CROP PROTECTANT	61842-18	KAOLIN	95.00%			TESSENDERLO KERLEY INC.	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>NUFARM CHLORPYRIFOS SPC 4 INSECTICIDE RESTRICTED USE PESTICIDE</b>	228-624	CHLORPYRIFOS	44.70%	IRAC	1	NUFARM AMERICAS INC	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<b>NuFARM LAMBDA-CYHALOTHRIN 1 EC INSECTICIDE RESTRICTED USE PESTICIDE</b>	228-708	LAMBDA-CYHALOTHRIN	13.00%	IRAC	3	NUFARM AMERICAS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	0.013 lbs/A on Alfalfa RT <sub>25</sub> 0.031 on alfalfa at RT <sub>25</sub> of 54
OMITE-30WS AGRICULTURAL MITICIDE	PROPARGITE	PROPARGITE	32%	IRAC	12	CHEMTURA CORPORATION	N/A	No bee toxicity statement on label	No Residual Toxicity Information Available
OMNI SUPREME SPRAY	5905-368	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	98%	FRAC	NC	HELENA CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>ONYXPRO INSECTICIDE RESTRICTED USE PESTICIDE</b>	279-4269	BIFENTHRIN	23.40%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
ORANGE GUARD ORNAMENTAL PLANTS	61887-3	LIMONENE	5.80%			ORANGE GUARD INC	Botanical	<b>Bee Hazard:</b> This product is toxic to bees when exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
ORNAZIN 3% EC BOTANICAL INSECTICIDE	5481-476-67690	AZADIRACTIN	3.00%	IRAC	un	SEPRO CORPORATION	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
ORTHO ECOSENSE BRAND INSECTICIDAL SOAP	67702-21-239	POTASSIUM LAURATE	1%			ORTHO GROUP	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available
ORTHO ELEMENTALS INSECTICIDAL SOAP	67702-21-239	POTASSIUM LAURATE	1%			ORTHO GROUP	Soap salts	No bee toxicity statement on label	No Residual Toxicity Information Available
ORTHO MAX -PRO-	279-3206	BIFENTHRIN	7.90%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
OVATION SC	66222-53-58185	CLOFENTEZINE	42%	IRAC	10	SCOTTS-SIERRA CROP PROTECTION CO.	Tetrazine	Do not apply when weather conditions favor drift from treated area.	No Residual Toxicity Information Available
PEDESTAL NOVALURON INSECTICIDE	66222-40-400	NOVALURON	10.00%	IRAC	15	CHEMTURA CORPORATION	Benzoylurea	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>PERM-UP 25DF INSECTICIDE RESTRICTED USE PESTICIDE</b>	70506-66	PERMETHRIN	25.00%	IRAC	3	UNITED PHOSPHORUS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
<b>PERMASTAR AG AGRICULTURAL INSECTICIDE RESTRICTED USE PESTICIDE</b>	71532-15-73006	PERMETHRIN	38.00%	IRAC	3	LG INTERNATIONAL - AMERICA- INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
<b>PERMETHRIN 3.2EC INSECTICIDE RESTRICTED USE PESTICIDE</b>	70506-9-5905	PERMETHRIN	36.80%	IRAC	3	HELENA CHEMICAL COMPANY	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]



PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
PERMETHRIN CS - CONTROLLED RELEASE INSECTICIDE	53883-282	PERMETHRIN	23.60%	IRAC	3	CONTROL SOLUTIONSü INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
<b>PERMETHRIN RESTRICTED USE PESTICIDE</b>	34704-873	PERMETHRIN	38.40%	IRAC	3	LOVELAND PROD./CROP PROTECTION SVCS	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]
PESTOUT BROAD SPECTRUM MITICIDE/INSECTICIDE	68573-09001	CLOVE OIL	20%			JH BIOTECH INC.	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
PESTOUT BROAD SPECTRUM MITICIDE/INSECTICIDE	68573-09001	COTTONSEED OIL	40%			JH BIOTECH INC.	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
PESTOUT BROAD SPECTRUM MITICIDE/INSECTICIDE	68573-09001	GARLIC OIL/POWDER	10%			JH BIOTECH INC.	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
PFR-97 20% WDG MICROBIAL INSECTICIDE /ORGANIC PRODUCTION	70051-19	ISARIA FUMOSOROSEA	20%			CERTIS USA LLC	Microbiological	No bee toxicity statement on label	No Residual Toxicity Information Available
PLASMA NEEM OIL BIOLOGICAL INSECTICIDE /ORGANIC PRODUCTION	84185-4	NEEM OIL COLD PRESSED	100%			PLASMA POWER PRIVATE LIMITED	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
<b>POUNCE 25WP INSECTICIDE RESTRICTED USE PESTICIDE</b>	279-3051	PERMETHRIN	25%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	0.5 to 2 days ERT. >5 days ERT Can vary with formulation and application rate. Incompatible with bumble bees [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
PRECISE ACEPHATE GREENHOUSE AND NURSERY SYSTEMIC INSECTICIDE	84886-2	ACEPHATE	4.00%	IRAC	1	AGRIUM ADVANCED TECHNOLOGIES (US) INC	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
PREFERAL MICROBIAL INSECTICIDE	70051-19-67690	ISARIA FUMOSOROSEA	20%			SEPRO CORPORATION	Microbiological	No bee toxicity statement on label	No Residual Toxicity Information Available
PRENTOX 5LB MALATHION SPRAY	655-777	MALATHION	57.00%	IRAC	1	PRENTISS INCORPORATED	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
PRES TRMT 1300 ORTHENE TR MICRO TOTAL RELEASE INSECT	499-421	ACEPHATE	12.00%	IRAC	1	WHITMIRE MICRO-GEN RESEARCH LABS	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
PRES TRMT 1600 X-CLUDE TIMED RELEASE PYRETHRUM	499-239	PYRETHRINS	0.30%	IRAC	3	WHITMIRE MICRO-GEN RESEARCH LABS	Pyrethroid	No bee toxicity statement on label	<2 hours RT, can vary with formulation and application rate [1]
PRES TRMT DURAGUARD ME	499-367	CHLORPYRIFOS	20%	IRAC	1	WHITMIRE MICRO-GEN RESEARCH LABS	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
PRES TRMT PYRETHRUM TR MICRO TOTAL RELEASE INSECT	499-479	PYRETHRINS	4.00%	IRAC	3	WHITMIRE MICRO-GEN RESEARCH LABS	Pyrethroid	No bee toxicity statement on label	No Residual Toxicity Information Available
PRES TRMT ULTRA-PURE OIL	69526-5-499	MINERAL OIL/PETROLEUM DISTILLATE	98.00%	FRAC	NC	WHITMIRE MICRO-GEN RESEARCH LABS	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
PREV-AM ULTRA CONTROL	72662-3	SODIUM BORATE (BORAX)	0.99%	IRAC	8	ORO AGRI INC.	Inorganic	Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks, and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.	No Residual Toxicity Information Available
PRO-MATE BIFENTHRIN TERMITICIDE/INSECTICIDE	279-3206-5905	BIFENTHRIN	7.90%	IRAC	3	HELENA CHEMICAL COMPANY	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
PROMITE 50WP MITICIDE	67690-40	FENBUTATIN-OXIDE	50%	IRAC	12	SEPRO CORPORATION	Organotin	No bee toxicity statement on label	No Residual Toxicity Information Available
PURE SPRAY GREEN CONC	69526-14	MINERAL OIL/PETROLEUM DISTILLATE	98.00%	FRAC	NC	PETRO-CANADA	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
PURESPRAY GREEN	69526-9	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	98.00%	FRAC	NC	PETRO-CANADA	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
PURESPRAY SPRAY OIL 10E	69526-5	MINERAL OIL/PETROLEUM DISTILLATE	98.00%	FRAC	NC	PETRO-CANADA	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
PYGANIC CROP PROTECTION EC 5.0 II	1021-1772	PYRETHRINS	5.00%	IRAC	3	MCLAUGHLIN GORMLEY KING	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	<2 hours RT, can vary with formulation and application rate [1]
PYGANIC DUST	1021-1871	PYRETHRINS	1.00%	IRAC	3	MCLAUGHLIN GORMLEY KING	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	<2 hours RT, can vary with formulation and application rate [1]
PYGANIC PRO	1021-1772	PYRETHRINS	5.00%	IRAC	3	MCLAUGHLIN GORMLEY KING	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	<2 hours RT, can vary with formulation and application rate [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<i>QUALI-PRO BIFENTHRIN GOLF &amp; NURSERY 7.9F RESTRICTED USE PESTICIDE</i>	66222-192	BIFENTHRIN	7.90%	IRAC	3	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	<2 hours RT, can vary with formulation and application rate [1]
<i>QUALI-PRO CHLORPYRIFOS 4E INSECTICIDE RESTRICTED USE PESTICIDE</i>	66222-19	CHLORPYRIFOS	42.50%	IRAC	1	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>QUALI-PRO LAMBDA GC-O INSECTICIDE RESTRICTED USE PESTICIDE</i>	53883-244-66222	LAMBDA-CYHALOTHRIN	9.70%	IRAC	3	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	<2 hours RT, can vary with formulation and application rate [1]
<i>R-D-20 RESTRICTED USE PESTICIDE</i>	17545-12	N-ALKYL	10%			MONTEREY AG-RESOURCES		No bee toxicity statement on label	No Residual Toxicity Information Available
R-T-U YEAR-ROUND SPRAY OIL /ORGANIC GARDENING	6218-78	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	1.00%	FRAC	NC	SUMMIT CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
RAID EARTH OPTIONS INSECTICIDAL SOAP	67702-21-4822	POTASSIUM LAURATE	1%			SC JOHNSON & SON INC	Soap Salt	No bee toxicity statement on label	No Residual Toxicity Information Available
REVENGE GRANULAR ANT BAIT	64405-2-4	BORIC ACID	5.00%			BONIDE PRODUCTS INC	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
RIMON 0.83 EC INSECTICIDE	66222-35	NOVALURON	9.30%	IRAC	15	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Benzoylurea	No bee toxicity statement on label	No Residual Toxicity Information Available
SAFER BRAND BIONEEM MULTI-PURP. INSECT&REPELL CONC.	70051-6-42697	AZADIRACTIN	0.09%	IRAC	un	WOODSTREAM CORP.	Botanical: IGR	No bee toxicity statement on label	No Residual Toxicity Information Available
SAFER BRAND INSECT KILLING SOAP CONC. II	42697-60	POTASSIUM LAURATE	49.52%			WOODSTREAM CORP.	Soap Salt	No bee toxicity statement on label	No Residual Toxicity Information Available

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<b>SCIMITAR GC INSECTICIDE RESTRICTED USE PESTICIDE</b>	100-1088	LAMBDA-CYHALOTHRIN	9.70%	IRAC	3	SYNGENTA CROP PROTECTION INC.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.013 lbs/A on Alfalfa RT <sub>25</sub> 0.031 on alfalfa at RT <sub>25</sub> of 54
SEDUCE INSECT BAIT /ORGANIC PRODUCTION	67702-25-70051	SPINOSAD (SPINOSYN A+D)	0.07%	IRAC	5	CERTIS USA LLC	Spinosyn	No bee toxicity statement on label	No Residual Toxicity Information Available
SEVIN BRAND 4F CARBARYL INSECTICIDE	264-349	CARBARYL (CARBAMATE)	43.00%	IRAC	1	BAYER CROPSCIENCE LP	Carbamate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Carbaryl is highly toxic to bees. Residual toxicity varies with formulation and application rate. Bees are unlikely to be exposed to granular and bait formulations [1]
SEVIN BRAND RP4 CARBARYL INSECTICIDE (B)	264-335	CARBARYL (CARBAMATE)	43.00%	IRAC	1	BAYER CROPSCIENCE LP	Carbamate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Carbaryl is highly toxic to bees. Residual toxicity varies with formulation and application rate. Bees are unlikely to be exposed to granular and bait formulations [1]
SEVIN BRAND XLR PLUS CARBARYL INSECTICIDE	264-333	CARBARYL (CARBAMATE)	44.10%	IRAC	1	BAYER CROPSCIENCE LP	Carbamate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Carbaryl is highly toxic to bees. Residual toxicity varies with formulation and application rate. Bees are unlikely to be exposed to granular and bait formulations [1]
SHUTTLE 15 SC MITICIDE	66330-38	ACEQUINOCYL	15.80%	IRAC	20	ARYSTA LIFESCIENCE NORTH AMERICA	Unclassified	No bee toxicity statement on label	No Residual Toxicity Information Available
SHUTTLE O MITICIDE	66330-38-59807	ACEQUINOCYL	15.80%	IRAC	20	OHP INC.	Unclassified	No bee toxicity statement on label	No Residual Toxicity Information Available
SIESTA INSECTICIDE FIRE ANT BAIT	7969-232	METAFLUMIZONE	0.06%	IRAC	22	BASF CORP	semicarbazone	No bee toxicity statement on label	No Residual Toxicity Information Available
SIROCCO MITICIDE/INSECTICIDE	400-582-59807	ABAMECTIN (AVERMECTIN B1)	2.20%	IRAC	6	OHP INC.	Microbiological	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	0.025 lb ai/acre 1-3 days ERT, ≤ 0.025 lb ai/acre 8 hours RT (can vary with formulation and application rate) [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
SLUGGO PLUS T&O	67702-24-17575	IRON PHOSPHATE (FEPO4)	0.97%			MONTEREY AG-RESOURCES	Inorganic	No bee toxicity statement on label	No Residual Toxicity Information Available
SLUGGO PLUS T&O	67702-24-17575	SPINOSAD (SPINOSYN A+D)	0.07%	IRAC	5	MONTEREY AG-RESOURCES	Spinosyn	No bee toxicity statement on label	No Residual Toxicity Information Available
SPECKoZ BIFENTHRIN TERMITICIDE/INSECTICIDE	279-3206-72113	BIFENTHRIN	7.90%	IRAC	3	SPECKOZ INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
SUFFOIL-X	48813-1-68539	MINERAL OIL/PETROLEUM DISTILLATE LIGHT	80%	FRAC	NC	BIOWORKS INC	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
SUNSPRAY ULTRA-FINE SPRAY OIL	86330-11	MINERAL OIL/PETROLEUM DISTILLATE	98.80%	FRAC	NC	HOLLY FRONTIER REFINING & MARKETING LLC	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available
<i>SUPRACIDE 2E INSECTICIDE RESTRICTED USE PESTICIDE</i>	10163-236	METHIDATHION	24.40%	IRAC	1	GOWAN CO.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
TALSTAR INSECTICIDE	279-3365	BIFENTHRIN	0.05%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
TALSTAR NURSERY GRANULAR INSECTICIDE	279-3130	BIFENTHRIN	0.20%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
TALSTAR ONE MULTI-INSECTICIDE	279-3206	BIFENTHRIN	7.90%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
<i>TALSTAR S SELECT INSECTICIDE RESTRICTED USE PESTICIDE</i>	279-3155	BIFENTHRIN	7.90%	IRAC	3	FMC CORP - AG PRODUCTS GROUP	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
TALUS 70DF IGR	71711-21-67690	BUPROFEZIN	70.00%	IRAC	16	SEPRO CORPORATION	Insect Growth Reg	No bee toxicity statement on label	No Residual Toxicity Information Available
TENKOZ ACEPHATE 97 INSECTICIDE	70506-8-55467	ACEPHATE	97%	IRAC	1	TENKOZ INC	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>TENKOZ PERMETHRIN 3.2EC INSECTICIDE RESTRICTED USE PESTICIDE</i>	70506-9-55467	PERMETHRIN	36.80%	IRAC	3	TENKOZ INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to bloom ing crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>TERR-O-GAS 57 RESTRICTED USE PESTICIDE</i>	5785-28	CHLOROPICRIN/METHYL BROMIDE	43%	IRAC	8	CHEMTURA CORPORATION / GREAT LAKES CHEM		No bee toxicity statement on label	No Residual Toxicity Information Available
<i>TERR-O-GAS 67 RESTRICTED USE PESTICIDE</i>	5785-24	CHLOROPICRIN/METHYL BROMIDE	33%	IRAC	8	CHEMTURA CORPORATION / GREAT LAKES CHEM		No bee toxicity statement on label	No Residual Toxicity Information Available
<i>TERR-O-GAS 75 RESTRICTED USE PESTICIDE</i>	5785-40	CHLOROPICRIN/METHYL BROMIDE	25%	IRAC	8	CHEMTURA CORPORATION / GREAT LAKES CHEM		No bee toxicity statement on label	No Residual Toxicity Information Available
<i>TERR-O-GAS 98 PREPLANT SOIL FUMIGANT RESTRICTED USE PESTICIDE</i>	5785-22	CHLOROPICRIN/METHYL BROMIDE	2%	IRAC	8	CHEMTURA CORPORATION / GREAT LAKES CHEM		No bee toxicity statement on label	No Residual Toxicity Information Available
TETRASAN 5 WDG MITICIDE/OVICIDE	59639-108	ETOXAZOLE	5%	IRAC	10	VALENT USA CORPORATION	Diphenyl oxazoline	No bee toxicity statement on label	3 days ERT for bumble bees [1]
TIDE ACEPHATE 90 WDG	84229-7	ACEPHATE	90.00%	IRAC	1	TIDE INTERNATIONAL USA INC	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]

PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
TOPIA INSECTICIDE	279-11001	CEDAR OIL	0.02%			FMC CORP - AG PRODUCTS GROUP	Botanical	No bee toxicity statement on label	No Residual Toxicity Information Available
TRIACT 70 FUNG/INSECT/MITICIDE	70051-2-59807	CLARIFIED HYDROPHOBIC EXTRACT OF NEEM OIL	70%			OHP INC.	Botanical	This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.	No Residual Toxicity Information Available
TRILOGY FUNGICIDE/MITICIDE/INSECTICIDE	70051-2	CLARIFIED HYDROPHOBIC EXTRACT OF NEEM OIL	70%			CERTIS USA LLC	Botanical	This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.	No Residual Toxicity Information Available
ULTIFLORA MITICIDE	10163-280	MILBEMECTIN	1.00%	IRAC	6	GOWAN CO.	Microbiological	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	Length of residual toxicity to honey bee unknown. 3 days ERT for bumble bees [1]
UP-STAR GOLD INSECTICIDE	70506-24	BIFENTHRIN	7.90%	IRAC	3	UNITED PHOSPHORUS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
UP-STAR NURSERY GRANULAR INSECTICIDE	70506-75	BIFENTHRIN	0.20%	IRAC	3	UNITED PHOSPHORUS INC	Pyrethroid	No bee toxicity statement on label	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<b>UP-STAR SC LAWN AND NURSERY INSECTICIDE/MITICIDE RESTRICTED USE PESTICIDE</b>	70506-23	BIFENTHRIN	7.90%	IRAC	3	UNITED PHOSPHORUS INC	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
<b>VENDEX SOWP MITICIDE RESTRICTED USE PESTICIDE</b>	70506-211	FENBUTATIN-OXIDE	50%	IRAC	12	UNITED PHOSPHORUS INC	Organotin	No bee toxicity statement on label	No Residual Toxicity Information Available



PRODUCT NAME	EPA	INGREDIENT	CONCENTRATION	RESISTANCE SOURCE	RESISTANCE CODE	REGISTRANT NAMES	Chemical Class	Bee Toxicity Information	Residual Toxicity (RT), and Extended Residual Toxicity (ERT) RT= The length of time the residues of the product remain toxic to bees after application. ERT= Residues are expected to cause at least 25 percent mortality for longer than 8 hours after application.
VULCAN	66222-233	CHLORPYRIFOS	39.50%	IRAC	1	MAKHTESHIM-AGAN OF NORTH AMERICAN INC.	Organophosphate	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	2 day ERT Can vary with formulation and application rate, Incompatible with bumble bees [1]
<i>WISDOM FLOWABLE RESTRICTED USE PESTICIDE</i>	5481-519	BIFENTHRIN	7.90%	IRAC	3	AMVAC CHEMICAL CORP.	Pyrethroid	This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
WISDOM NURSERY GRANULAR INSECTICIDE	5481-522	BIFENTHRIN	0.20%	IRAC	3	AMVAC CHEMICAL CORP.	Pyrethroid	No bee toxicity statement on label	>0.06 lb ai/acre, > 1 day ERT, ≤ 0.04 lb ai/acre 4-6 hours RT (can vary with formulation and application rate) [1]
XENTARI DRY FLOWABLE /ORGANIC PRODUCTION	73049-40	BACILLUS THURINGIENSIS SSP. AIZAWAI	54%	IRAC	11	VALENT BIOSCIENCES CORP.	Microbiological	No bee toxicity statement on label	No Residual Toxicity Information Available
YEAR-ROUND SPRAY OIL KILLS GARDEN INSECTS	6218-71	MINERAL OIL/PETROLEUM DISTILLATE	98.80%	FRAC	NC	SUMMIT CHEMICAL COMPANY	Petroleum Hydrocarbon	No bee toxicity statement on label	No Residual Toxicity Information Available