

NOTE: the following label component is for the container label, for container sizes <6 L

Group	3	Insecticide
-------	----------	-------------

Perm-UP Emulsifiable Concentrate Insecticide

CONTAINS PERMETHRIN

Perm-UP Emulsifiable Concentrate Insecticide is to be used for the control of listed pests under each of these sites:

Crops (excluding fruit and non-food crops); fruit crops; outdoor trees and shrubs (excluding woodlands and forests); greenhouse ornamentals; inside of farm buildings and food processing plants; outdoor treatments on the exterior surfaces of listed buildings; topical applications to beef cattle, non-lactating dairy cattle, poultry and sheep; conifer seedlings grown in forestry nursery greenhouses; woodland uses (restricted uses); and for the suppression of small hive beetle (*Aethina tumida*) around honeybee colonies.

POISON

WARNING: EYE AND SKIN IRRITANT

COMMERCIAL
STORE ABOVE -12°C

ACTIVE INGREDIENT: Permethrin.....384 g/L
REGISTRATION NO. 28877 PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND LEAFLET BEFORE USING

NET CONTENTS Litre

UPL Agrosolutions Canada Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406, USA
1-800-438-6071

**FOR CHEMICAL EMERGENCY: spill, leak, fire, exposure or accident
call CHEMTREC 1-800-424-9300**

KEEP OUT OF REACH OF CHILDREN

Follow the personal protective equipment and restriction requirements for the appropriate mixer/loader and applicator scenario as described in the booklet label.

Harmful if swallowed. Causes eye and skin irritation. **DO NOT** get in eyes or on skin.

FIRST AID

IN CASE OF POISONING Contact a physician or a poison control centre **IMMEDIATELY**.

IF SWALLOWED Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF INHALED Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF ON SKIN/CLOTHING Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF IN EYES Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Contains petroleum distillate. - vomiting may cause aspiration pneumonia. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically.

STORAGE

Store in a cool, dry, well-ventilated area away from food stuffs and out of the reach of children and animals. Keep product from freezing. Store above -12° C.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTE: the following label component is for the container label, for container sizes 6 to 10 L

Group	3	Insecticide
-------	----------	-------------

Perm-UP Emulsifiable Concentrate Insecticide

CONTAINS PERMETHRIN

Perm-UP Emulsifiable Concentrate Insecticide is to be used for the control of listed pests under each of these sites:

Crops (excluding fruit and non-food crops); fruit crops; outdoor trees and shrubs (excluding woodlands and forests); greenhouse ornamentals; inside of farm buildings and food processing plants; outdoor treatments on the exterior surfaces of listed buildings; topical applications to beef cattle, non-lactating dairy cattle, poultry and sheep; conifer seedlings grown in forestry nursery greenhouses; woodland uses (restricted uses); and for the suppression of small hive beetle (*Aethina tumida*) around honeybee colonies.

POISON

WARNING: EYE AND SKIN IRRITANT

COMMERCIAL
STORE ABOVE -12°C

ACTIVE INGREDIENT: Permethrin.....384 g/L
REGISTRATION NO. 28877 PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND THIS LEAFLET BEFORE USING

NET CONTENTS Litre

UPL Agrosolutions Canada Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406, USA
1-800-438-6071

For Chemical Emergency: spill, leak, fire, exposure or accident,
call CHEMTREC 1-800-424-9300

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed. Causes eye and skin irritation. DO NOT get in eyes or on skin.

For mechanically-pressurized handheld sprayer for mists, aerosols, and fogs applications, or entering treated areas before venting, wear chemical-resistant coveralls with a chemical-resistant hood over long pants, and long-sleeved shirt, chemical-resistant gloves, socks, chemical-resistant footwear, and a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH-approved canister approved for pesticides during mixing, loading, application, clean-up and repair.

For truck-mounted mistblower or airblast applications, wear a long-sleeved shirt, long pants, chemical-resistant gloves, and a chemical-resistant hat that covers the neck (e.g Sou'Wester) during mixing, loading, application, clean-up and repair, or use a closed cab (for example, tractor cab/truck with windows rolled up).

For mechanically pressurized handgun applications, wear cotton coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, socks, and shoes during mixing, loading, application, clean-up and repair.

For other application equipment wear long pants, long-sleeved shirt, chemical-resistant gloves, shoes, and socks during mixing, loading, application, clean-up and repair, unless otherwise specified.

Gloves are not required during application within a closed cab.

FIRST AID

IN CASE OF POISONING Contact a physician or a poison control centre **IMMEDIATELY**.

IF SWALLOWED Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF INHALED Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF ON SKIN/CLOTHING Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF IN EYES Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Contains petroleum distillate. - vomiting may cause aspiration pneumonia. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically.

STORAGE

Store in a cool, dry, well-ventilated area away from food stuffs and out of the reach of children and animals. Keep product from freezing. Store above -12° C.

SPILL CLEAN-UP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag.

For spills and leaks; contain the liquid with dikes of inert material (soil, clay, kitty litter, etc.) Absorb the spill into the inert material and shovel into a sealable waste container.

On hard surfaces: Sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

On soil: Remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. For more information on the disposal of waste and the clean up of spills, contact the Provincial Regulatory Agency or the Manufacturer.

DISPOSAL

5. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
6. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
7. Make the empty container unsuitable for further use.
8. Dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label.

**Perm-UP
Emulsifiable Concentrate Insecticide**

CONTAINS PERMETHRIN

Perm-UP Emulsifiable Concentrate Insecticide is to be used for the control of listed pests under each of these sites:

Crops (excluding fruit and non-food crops); fruit crops; outdoor trees and shrubs (excluding woodlands and forests); greenhouse ornamentals; inside of farm buildings and food processing plants; outdoor treatments on the exterior surfaces of listed buildings; topical applications to beef cattle, non-lactating dairy cattle, poultry and sheep; conifer seedlings grown in forestry nursery greenhouses; woodland uses (restricted uses); and for the suppression of small hive beetle (*Aethina tumida*) around honeybee colonies.

POISON

WARNING: EYE AND SKIN IRRITANT

COMMERCIAL
STORE ABOVE -12°C

ACTIVE INGREDIENT: Permethrin.....384 g/L
REGISTRATION NO. 28877 PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND LEAFLET BEFORE USING

NET CONTENTS (0.5 to 10) Litre

UPL Agrosolutions Canada Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406, USA

1-800-438-6071

**FOR CHEMICAL EMERGENCY: spill, leak, fire, exposure or accident,
call CHEMTREC 1-800-424-9300**

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Harmful if swallowed. Causes eye and skin irritation. DO NOT get in eyes or on skin.

For mechanically-pressurized handheld sprayer for mists, aerosols, and fogs applications, or entering treated areas before venting, wear chemical-resistant coveralls with a chemical-resistant hood over long pants, and long-sleeved shirt, chemical-resistant gloves, socks, chemical-resistant footwear, and a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH-approved canister approved for pesticides during mixing, loading, application, clean-up and repair.

For truck-mounted mistblower or airblast applications, wear a long-sleeved shirt, long pants, chemical-resistant gloves, and a chemical-resistant hat that covers the neck (e.g Sou'Wester) during mixing, loading, application, clean-up and repair, or use a closed cab (for example, tractor cab/truck with windows rolled up).

For mechanically pressurized handgun applications, wear cotton coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, socks, and shoes during mixing, loading, application, clean-up and repair.

For other application equipment wear long pants, long-sleeved shirt, chemical-resistant gloves, shoes, and socks during mixing, loading, application, clean-up and repair, unless otherwise specified.

Gloves are not required during application within a closed cab.

Restricted Entry Intervals

Crop	Activity	REI ^a
apple, nectarine, peach, pear, plum, asparagus, barley, canola, flax, oats, peanuts, peas, rape, rye, snap bean, sugar beet, wheat, lentils, beet, carrot, onion, potato, turnip, radish, ginseng, horseradish, low/high bush blueberry, lettuce, pak choi, tomato, pepper, tobacco, commercial woodland, broccoli, Brussels sprouts, cabbage, cauliflower, Chinese broccoli, Chinese cabbage, conifer/tobacco seedlings, ornamentals, greenhouse tomato, greenhouse cucumber, fence rows, sunflowers, mushroom houses	all activities	12 hours
grape	girdling, turning	15 days
	tying/training, hand harvesting, leaf pulling by hand	2 days
	all other activities	12 hours
corn, sweet corn	hand detasselling, hand harvest	8 days
	all other activities	12 hours

REI = restricted entry intervals

^a If the REI for hand harvesting and the PHI are different, follow the longer of the two intervals for both the REI and PHI. If the crop is harvested mechanically, with no contact with the treated foliage or crop, follow the PHI. Some of the activities in the REI table are not routinely conducted on every farm for every crop. The REIs specified for an activity must be followed only

if that activity is being performed.

Cover crop or crop treated with Perm-UP Emulsifiable Concentrate Insecticide should not be used as green feed for animals.

Restrictions:

- As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- DO NOT apply undiluted.
- DO NOT apply to people, pets, livestock, or sources of electricity.
- DO NOT apply when people, pets, or livestock are present.
- DO NOT allow people, pets or livestock to enter treated areas until sprays have dried.
- DO NOT allow spray to drip or allow drift onto non-target surfaces.
- DO NOT apply to furniture, mattresses, linens, toys or clothing.
- In indoor areas, DO NOT apply to overhead areas or in confined spaces without appropriate respiratory and eye protection.
- In indoor areas, ventilate treated areas after application either by opening windows and doors or using fans, where required, to aid in the circulation of air. Air exchange/ventilation systems confirmed to be operational may also be used.
- For structural applications, use a coarse droplet size and low pressure spray not exceeding 345 kPa (50 psi) to avoid splashing onto non-target surfaces.
- Apply only when the potential for drift to non-target areas of human habitation and human activity is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.
- DO NOT apply as a space spray.
- Where multiple applications are allowed, treatment must only be repeated if pest problem persists or reoccurs. DO NOT exceed the application rate and number applications per year for each use. Follow the re-application interval for each use.

Aerial Application

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on the label. Where no rate for aerial application appears for specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked uneven or overlapped application, use appropriate marking devices.

Use Precautions - Aerial Application

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

DO NOT USE HUMAN FLAGGERS.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply when weather conditions favour drift from the target area. Do not spray when the wind is blowing toward a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

Operator Precautions-Aerial Application

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during the mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms. Observe buffer zones specified under **DIRECTIONS FOR USE**.

Toxic to birds.

Toxic to bees. Bees may be exposed through direct spray, spray drift, and residues on leaves, pollen and nectar in flowering crops and weeds. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in ground cover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance “Protecting Pollinators during Pesticide Spraying – Best Management Practices” on the Health Canada website (www.healthcanada.gc.ca/pollinators). Follow crop specific directions for application timing. For crops that are highly attractive to pollinators (apples, pears, nectarines, peaches, plums, canola, sunflowers), do not apply during the blooming period. For all other crops, avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland. Permethrin may impact predatory and parasitic arthropod species used in IPM programs within the treatment area. Unsprayed refugia for beneficial species of at least 1 meter from treatment area will help maintain beneficial arthropod populations.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

To reduce risk to aquatic organisms from run-off, a vegetative filter strip of at least 10 metres wide between the field edge and adjacent, downhill aquatic habitats must be observed, as specified under **DIRECTIONS FOR USE**.

Greenhouse use: Toxic to bees and other beneficial insects. May harm bees and other beneficial insects, including those used in greenhouse production. Do not apply when bees or other beneficial insects are foraging in the treatment area.

DIRECTIONS FOR USE

Perm-UP Emulsifiable Concentrate Insecticide is a synthetic pyrethroid insecticide. It is a stomach and contact insecticide with no systemic or fumigant effect. Therefore, it is very important to obtain excellent spray coverage. Apply by ground equipment only unless otherwise noted. Where multiple applications are allowed, treatment must only be repeated if pest problem persists or reoccurs. **DO NOT** exceed the application rate and number of applications per year for each use. Follow the re-application interval for each use.

Perm-UP Emulsifiable Concentrate Insecticide is to be used for the control of listed pests under each of these sites:

- a) crops (excluding fruit and non-food crops);
- b) fruit crops;
- c) outdoor trees and shrubs (excluding woodlands and forests);
- d) greenhouse ornamentals;
- e) inside of farm buildings and food processing plants;
- f) outdoor treatments on the exterior surfaces of listed buildings; and
- g) topical applications to beef cattle, non-lactating dairy cattle, poultry and sheep.
- h) conifer seedlings grown in forestry nursery greenhouses;
- i) woodland uses (restricted uses) and for the suppression of small hive beetle (*Aethina tumida*) around honeybee colonies.

A plant back interval of 60 days is required for all food/feed crops not currently listed on the label.

To protect pollinators, follow the instructions regarding bees in the ENVIRONMENTAL PRECAUTIONS section.

DO NOT allow releases, effluent or runoff from greenhouses or mushroom houses containing this product to enter lakes, streams, ponds or other waters.

Vegetative Filter Strips

A Vegetative Filter Strip (VFS) of at least 10 metres wide must be observed. The VFS is required between the field edge and adjacent, downhill aquatic habitats to reduce risk to aquatic organisms from run-off. Aquatic habitats include, but are not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

The VFS is to be composed of grasses and may also include shrubs, trees, or other vegetation. The VFS must be maintained. Additional guidance can be found on the PMRA Environmental Risk Mitigation webpages.

Both VFS and spray drift buffer zones must be observed.

Spray Drift Buffer Zones

Spray drift buffer zones are to protect terrestrial and aquatic habitats from spray drift. Spray drift buffer zones are a separate requirement from VFS which are required to mitigate risks from run-off.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 8 km/h at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Air-induction nozzles must be used for the ground application of this product. Boom height must be 60 cm or less above the crop or ground.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

Aerial application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 8 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium-coarse classification. DO NOT apply under weather conditions of less than 50% relative humidity and temperatures greater than 20°C. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

Buffer zones:

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Application Method	Crop	Buffer Zones (metres) Required for the Protection of:	
		Freshwater Habitat of Depths:	Estuarine/Marine Habitat of Depths:

			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m
Field sprayer	Blueberry		5	3	15	5
	Canola, asparagus, barley, beet, field corn, flax, lettuce, oat, onion, pea, rye, sunflower, wheat, lentil		10	5	25	10
	Chinese broccoli, horseradish, bok choy, peanut, radish, turnip		15	5	15	5
	Snap bean		15	5	20	10
	Ginseng, carrot, tobacco		20	10	25	10
	Broccoli, Brussel sprout, cabbage, cauliflower, pepper, potato, sweet corn		35	15	25	10
	Tomato		45	20	25	10
Airblast	Blueberry	Early growth stage	60	55	70	60
		Late growth stage	50	45	60	50
	Apple	Early growth stage	75	65	80	70
		Late growth stage	60	55	70	60
	Grape, nectarine, peach	Early growth stage	80	70	80	70
		Late growth stage	70	60	70	60
	Plum	Early growth stage	80	70	80	75
		Late growth stage	70	60	70	60
Pear	Early growth stage	80	70	90	80	
	Late growth stage	70	60	80	70	
Aerial	Broccoli, Cauliflower, cabbage, asparagus, barley, beets, carrots, field corn, flax, lettuce, oats, onions, peas, potato, rye, sunflower, triticale, wheat, Brussels sprouts, peppers, canola, legume vegetables: lentils	Fixed wing	800	800	800	800
		Rotary wing	700	475	800	675
	Sweet Corn	Fixed wing	800	800	800	800
		Rotary wing	800	650	800	700
	Snap bean	Fixed wing	800	800	800	800
		Rotary wing	800	650	800	750

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The buffer zones for airblast application of this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site. Buffer zones for field sprayer or aerial application CANNOT be modified using the Buffer Zone Calculator.

A) INSTRUCTIONS FOR CROPS (EXCLUDING FRUIT AND NON-FOOD CROPS):

Toxic to bees. For all crops (excluding barley, oats, rye, wheat): Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict

applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period. Follow additional restrictions below for canola and sunflower.

Perm-UP Emulsifiable Concentrate Insecticide may be applied to the following crops:

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
BEETS CARROTS CORN (excluding sweet corn) LETTUCE ONIONS SUGAR BEETS	Cutworms: Army Black Dark-sided Pale Western Red-backed White	Not applicable	180-390	Beets, Corn (excluding sweet corn), Lettuce, Onions and Sugar Beets: 7 days Carrots: 14 days	DO NOT make more than 2 applications per year. Only one of these applications can be made by air per year. Do not exceed 390 mL/Ha per season for beets, corn (excluding sweet corn), lettuce, onions and sugar beets. Do not exceed 780 mL/Ha per season for carrots.	Beets, Carrots and Sugar beets: 2 days Lettuce and Onions: 1 day Corn: 30 days	<p>Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT.</p> <p>Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.</p>
	Pale Western Cutworm			<p>Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.</p>			
LENTILS PEAS	Cutworms: Army Black Dark-sided Pale Western Red-backed White	Not applicable	180-390	7 days	DO NOT make more than 2 applications per year. Only one of these applications can be made	DO NOT apply within 7 days of harvest.	<p>Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390</p>

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
	Pale Western Cutworm				by air per year. Do not exceed 390 mL/Ha per season.		<p>mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT.</p> <p>Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.</p> <p>Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.</p>
FLAX SUNFLOWERS	Cutworms: Army Black Dark-sided Pale Western Red-backed White	Not applicable	180-390	7 days	<p>DO NOT make more than 2 applications per year.</p> <p>Only one of these applications can be made by air per year. Do not exceed 390 mL/Ha per season.</p>	Do NOT make any applications after the 5 leaf stage.	<p>Sunflowers: Toxic to bees. DO NOT apply during the crop blooming period.</p> <p>Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT.</p>

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
	Pale Western Cutworm						<p>Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.</p> <p>Sunflowers: Toxic to bees. DO NOT apply during the crop blooming period.</p> <p>Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.</p>
ASPARAGUS	Cutworms	Not applicable	180	7 days	DO NOT make more than 2 applications per year.	DO NOT apply within 2 days of harvest.	<p>DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.</p> <p>Ground Application: To control cutworms during the cutting season, make 1 broadcast application by ground to bare soil after cutting when damage is first noticed. Apply in sufficient water for good coverage. Apply in the evening or at night when cutworm activity is highest.</p>
	Cutworms: Army Black Dark-sided Pale Western Red-backed White	Not applicable	180-390		Only one of these applications can be made by air per year. Do not exceed 390 mL/ha per season.		<p>Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5</p>

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
							DAYS AFTER TREATMENT. Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.
	Pale Western Cutworm	Not applicable	180-390				Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
CANOLA (RAPE)	Crucifer Flea Beetle	Not applicable	90-180	7 days	DO NOT make more than 2 applications per year Only one of these applications can be made by air per year. Do not exceed 390 mL/Ha per season.	Do NOT make any applications after the 5 leaf stage.	<p>Toxic to bees. DO NOT apply during the crop blooming period.</p> <p>Ground Application: Apply in sufficient water for good coverage when insects are present. Application should be made when the beetles are actively feeding. For severe infestations, use 180 mL per hectare.</p> <p>Aerial Application: Application by air is permitted, provided there is no hazard of drift to other crops or to areas occupied by people or livestock. Apply specified rate in 11-35 L water/ha.</p>
	Cutworms: Army Black Dark-sided Pale Western Red-backed White		180-390				<p>Toxic to bees. DO NOT apply during the crop blooming period.</p> <p>Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT. Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.</p>

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
	Pale Western Cutworm		180-390				Toxic to bees. DO NOT apply during the crop blooming period. Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.
CABBAGE CAULIFLOWER BROCCOLI BRUSSELS SPROUTS	Cabbage Looper Imported Cabbage Worm Diamondback Moth Larvae Crucifer Flea Beetle	Not applicable	90-180	7 days	DO NOT make more than 4 applications per year. Only one of these applications can be made by air per year. Do not exceed 780 mL/Ha per season.	Cabbage, cauliflower and Brussel sprouts: 3 days Broccoli: 7 days	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply with ground application in 400-650 L of water per hectare on a 7-10 day schedule when insects or insect damage first appears. For severe infestations, use 180 mL per hectare. Add AGRAL® 90 wetting agent at 300 mL per 1000 L of water to improve wetting and coverage. May be applied up to 3 days before harvest of cabbage, cauliflower and brussels sprouts and up to 7 days before harvest of broccoli.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
	Cutworms: Army Black Dark-sided Pale Western Red-backed White		180-390				Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT. Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.
	Pale Western Cutworm		180-390				Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.
CHINESE BROCCOLI	Cabbage Looper Diamondback Moth Larvae Imported Cabbage Worm	Not applicable	90-180	7 days	DO NOT make more than 4 applications per year. Do not exceed 730 mL/ha per season.	DO NOT apply within 7 days of harvest	DO NOT APPLY BY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply with ground application in 400-675 L of water per hectare on a 7-10 day schedule when insects or insect damage first appears. Add AGRAL® 90 wetting agent at 300 mL per 1000 L of water to improve wetting and coverage. For severe infestation, use 180 mL per hectare.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
SWEET CORN	European Corn Borer Corn Earworm	Not applicable	275-375	3 days	DO NOT make more than 4 applications per year Only one of these applications can be made by air per year. Do not exceed 1,500 mL/Ha per season.	DO NOT apply within 1 day of harvest.	<p>Ground Application: Apply specified dosage in 325-450 L of water/ha using a boom and nozzle arrangement that ensures thorough spray coverage. Use the higher rate when severe insect pressure is anticipated. Spray no later than when first feeding is seen on the foliage. For second brood borers in late plantings, apply before tassels show. For control of corn earworm, direct the spray to ensure coverage of ears and silks. For application timing, follow the customary spray schedule in your region. Consult the provincial spray calendar.</p> <p>Aerial Application: Application by air is permitted, provided there is no hazard of drift to other crops or to areas occupied by people or livestock. Apply specified rate in 11-35 L water/ha.</p>
	Fall Armyworm		180				<p>Aerial or Ground Applications: See above for specific instructions. This treatment will not prevent internal cob damage if insect has penetrated ear.</p>
WHEAT BARLEY OATS RYE	Pale Western Cutworm	Not applicable	180-390	7 days	DO NOT make more than 2 applications per year Only one of these applications can be made by air per year. Do not exceed 390 mL/Ha per season.	DO NOT apply within 7 days of harvest.	<p>Ground Applications: Apply once in a specified dosage in enough water to ensure thorough coverage. Apply 180 mL/ha of product to control this insect attacking seedlings up to the 5 leaf stage. Under dry soil conditions or where cutworms are large (2.5-4 cm) use 290-390 mL/ha of product. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. Do not disturb the soil surface for 5 days after treatment. Perm-UP</p>

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
	Cutworms: Army Black Dark-sided Pale Western Red-backed White		180-390				<p>Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.</p> <p>Aerial Applications: Application by air is permitted, provided there is no hazard of drift to other crops or to areas occupied by people or livestock. Apply specified rate in 11-35 L of water/ha. Apply when wind is less than 10 km/h. Do not apply to seedlings of the crops specified here when they are larger than the 5-leaf stage. To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 290-390 mL per hectare.</p> <p>Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT. Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.</p>

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
CUCUMBER (Greenhouse)	Greenhouse Whitefly	260	-	10 days	DO NOT make more than 6 applications per year. Do not exceed 1,562 mL/Ha per season.	DO NOT apply within 1 day of harvest.	<p>Toxic to bees and other beneficial insects. May harm bees and other beneficial insects including those used in greenhouse production. Do not apply when bees or other beneficial insects are foraging in the treatment area.</p> <p>DO NOT allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.</p> <p>Ground Application: Apply to thoroughly cover all foliage.</p>
GINSENG	Cutworms – Army Black Pale Western Red-backed White Variegated	Not applicable	180-390	14 days	DO NOT make more than 2 applications per year. Do not exceed 780 mL/Ha per season.	DO NOT apply within 40 days of harvest	<p>DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply in sufficient water to give thorough coverage of the plants. Use the higher rate if the infestation is heavy; maximum of two applications per year. Apply when scouting indicates presence of cutworms.</p> <p>Under Dry conditions: Apply 295-390 mL/ha. Where cutworms are large (near full maturity – 2.5-4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest.</p>
	Four-lined Plant Bug		180-260				<p>DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application Only.</p>

<p>MUSHROOM (Mushroom house and adjacent premise areas)</p>	<p>Mushroom flies – Sciarid Phorid adults</p>	<p>Not applicable</p>	<p>65-85 mL/1000m³</p>	<p>DO NOT APPLY more than once daily.</p>	<p>DO NOT APPLY more than two applications between each break.</p> <p>Maximum of 20 applications per crop cycle (including breaks).</p> <p>DO NOT APPLY more than 63 applications in a year. Do not exceed 5.42 mL/m³ per year.</p>	<p>DO NOT APPLY within 1 day of manual or mechanical harvesting (1 day PHI).</p>	<p>For the control of sciarid and phorid adults in mushroom houses.</p> <p>DO NOT USE when air temperature is less than 12°C or greater than 30°C as this could reduce the effectiveness of Perm-UP Emulsifiable Concentrate Insecticide.</p> <p>For manual mushroom harvesting (hand picking) operations: Use (insert name of product) prior to filling, during cool down, during spawning, up to pinning and during post-production operations (between crop cycles). Make applications when there are no mushrooms above the substrate surface. The application must be such that the mushrooms will not be contacted with product during the application. If an application is required anytime when mushrooms are above the substrate surface the crop must be covered prior to application with an impermeable material to avoid direct contact to the mushrooms, for example between breaks. These restrictions are to minimize worker exposure.</p> <p>For mechanical mushroom harvesting operations: Use Perm-UP Emulsifiable Concentrate prior to filling, during cool down, during spawning, up to pinning, between breaks and during post-production operations (between crop cycles). DO NOT allow manual harvesting of mushrooms.</p> <p>Prepare the building and apply this product following these steps:</p> <ol style="list-style-type: none"> 1. Close all doors, windows and ventilators. 2. Lock or barricade all entrances, turn off pilot lights, post warning signs and take precautions to prevent persons and animals from entering the area.
---	---	-----------------------	-----------------------------------	---	--	--	---

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
							<p>3. Apply a fogging or aerosol treatment at the rate of (insert product rate) per 1 L of water per 1000 m³.</p> <p>4. Length of exposure time should be limited to one hour, and then fully ventilate the mushroom house with forced air circulation or the aid of exhaust fans to minimize surface deposits.</p> <p>Routine procedures for reducing fly populations need to be carefully followed to ensure adequate adult fly control in the mushroom crop and to reduce the necessity for pesticide applications. Consult provincial mushroom specialist for details of integrated Pest Management programs to be followed for sciarid and phorid fly control in mushroom houses.</p>
PAK-CHOI CHINESE CABBAGE	Cabbage Looper Imported Cabbage Worm Diamondback Moth Larvae	Not applicable	180	7 days	DO NOT make more than 4 applications per year. Do not exceed 730 mL/Ha per season.	DO NOT apply within 3 days of harvest	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply by ground application in 400-675 mL of water per hectare on a 7-10 day schedule when insects or insect damage first appears. Add AGRAL®90 wetting agent at 300 mL per 1000 L of water to improve wetting and coverage.
PEANUTS	Potato Leafhopper	Not applicable	180	7 days	DO NOT make more than 4 applications per year. Do not exceed 730 mL/Ha per season.	DO NOT apply within 14 days of harvest	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply by ground application in sufficient water for thorough coverage when infestation exceeds 2 leafhoppers per plant.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
PEPPERS	European Corn Borer	Not applicable	180	7 days	DO NOT make more than 4 applications per year. Do not exceed 730 mL/Ha per season.	DO NOT apply within 1 day of harvest.	Ground Application: Apply by ground application when borer is first noted between end of July to mid-September.
	Cutworms: Army Black Dark-sided Pale Western Red-backed White		180-390				Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT. Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.
POTATO	Colorado Potato Beetle Potato Flea Beetle Potato Leafhopper Tarnished Plant Bug	Not applicable	180-260	7 days	DO NOT make more than 4 applications per year. Only one of these applications can be made by air per year. Do not exceed 1,560 mL/Ha per season.	DO NOT apply within 1 day of harvest.	Ground Application: Apply in sufficient water for thorough coverage. Use the higher rate for heavy infestations. Aerial Application: Apply in 20 to 45 L of water for thorough coverage. Use the higher rate for heavy infestations. May be applied up to the day before harvest.
	Variegated (Climbing) Cutworm		180				Ground Application: Apply by ground application when insects or damage appears - usually late July or during August, depending on location. Good control is dependent on spray penetration of dense foliage.
	European Corn Borer		180				Ground Application: Apply in sufficient water for good coverage.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
							Apply when egg masses begin to hatch. Consult your crop specialists for appropriate spray schedule. Aerial Application: Application by air is permitted, provided there is no hazard of drift to other crops or to areas occupied by people or livestock. Apply specified rate in 11-35 L water/ha.
	Cutworms: Army Black Dark-sided Pale Western Red-backed White		180-390				Ground Application: To control these insects attacking seedlings (up to 5 leaves) and/or transplants of these crops, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or on muck soil, apply 295-390 mL/ha. Where cutworms are large (near full maturity - 2.5 - 4 cm) use 295-390 mL/ha. Applications should be made under warm, moist conditions in the evening or at night when cutworm activity is highest. DO NOT DISTURB THE SOIL SURFACE FOR 5 DAYS AFTER TREATMENT. Note: Perm-UP Emulsifiable Concentrate Insecticide will only control surface feeding or climbing stages of cutworms.
	Pale Western Cutworm		180-390				Aerial Application: To control this insect attacking seedlings; specifically crops meeting the criteria of seedlings up to 5 leaves, apply 180 mL/ha in sufficient water for good coverage. Under dry soil conditions or where cutworms are large (near full maturity - 2.5 to 4 cm) use 295-390 mL per hectare.
RADISH	Crucifer Flea Beetle	Not applicable	180	7 days	DO NOT make more than 4 applications	DO NOT apply within 2 days of harvest	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
					per year. Do not exceed 730 mL/Ha per season.		Ground Application: Apply by ground application when insects or insect damage appears.
HORSERADISH	Crucifer Flea Beetle	Not applicable	180	7 days	DO NOT make more than 4 applications per year. Do not exceed 730 mL/Ha per season.	DO NOT apply within 2 days of harvest	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply by ground application when insects or insect infestation appears.
SNAP BEANS	European Corn Borer	Not applicable	260	10 days	DO NOT make more than 3 applications per year. Only two of these applications can be made by air per year. Do not exceed 780 mL/Ha per season.	DO NOT apply within 7 days of harvest	Ground Application: Apply at the first sign of infestation. Aerial Application: Apply in 20 to 45 L of water at the first sign of infestation.
TOBACCO (Field)	Darksided Cutworm White Cutworm	Not applicable	175	7 days	Maximum 2 applications per year. Do not exceed 350 mL/Ha per season.	DO NOT apply within 55 days of harvest	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Make ground applications as either a cover crop treatment, soil treatment or post transplanting treatment using a total spray volume of 220-450 L per hectare using nozzle pressure of 175-350 kPa. Cutworm activity is greatest during the late evening and night. Application of Perm-UP Emulsifiable Concentrate Insecticide should be timed as close as possible to insect feeding activity.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
TOBACCO COVER CROP TREATMENT			175				DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply once to a rye or wheat cover crop when the crop is 10-15 cm high, 4 to 5 days before ploughdown. Application should also be made to fence rows and a 15 metre strip into nearby cover crop. Cover crops treated with Perm-UP Emulsifiable Concentrate Insecticide should not be used as a green feed for animals.
TOBACCO SOIL TREATMENT			175-350				DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply once 5 days before transplanting. Use the higher rate when the top 1 cm or more of soil is dry. Do not incorporate. Application should also be made to fence rows and a 15 metre strip into nearby cover crop. Do not disturb the soil surface for at least 5 days after treatment.
TOBACCO POST TRANSPLANTING TREATMENT			175			Do not apply within 55 days of harvest.	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.. Ground Application: Apply once to transplants immediately prior to anticipated cutworm feeding damage. Under conditions of severe insect pressure, applications should also be made to fence rows and a 15 metre strip into nearby cover crops.
TOMATOES (Greenhouse)	Greenhouse Whitefly	-	260	10 days	DO NOT make more than 6 applications per year. Do not exceed 1560 mL/Ha per season.	Do not apply within 1 day of harvest.	Toxic to bees and other beneficial insects. May harm bees and other beneficial insects including those used in greenhouse production. Do not apply when bees or other beneficial insects are foraging in the treatment area.

CROP(S)	PEST(S)	CONCENTRATION (mL OF PRODUCT/ 1000 L OF WATER)	PRODUCT RATE (mL OF PRODUCT/ HECTARE)	MINIMUM REAPPLICATION INTERVAL	MAXIMUM NUMBER OF APPLICATIONS PER YEAR OR CROP CYCLE	MINIMUM PREHARVEST INTERVAL	REMARKS
							DO NOT allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters. Ground Application: Apply to cover all foliage thoroughly.
TOMATOES (Field)	Colorado Potato Beetle Potato Flea Beetle Tomato Hornworm Variegated (Climbing) Cutworm	Not applicable	180-260	7 days	DO NOT make more than 5 applications per year. Do not exceed 1822 mL/Ha per season.	Do not apply within 1 day of harvest.	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply by ground application in sufficient water to give thorough coverage.
	Tomato Fruitworm (Corn Earworm)	Not applicable	260-365				DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply by ground application using the higher rate for heavy infestations. NOTE: Tomato Fruitworm that has entered the fruit will not be controlled.
TURNIP	Crucifer Flea Beetle	Not applicable	180	7 days	DO NOT make more than 3 applications per year. Do not exceed 540 mL/Ha per season.	Do not apply within 1 day of harvest.	DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Ground Application: Apply by ground application at the 2-8 leaf stage when insects or insect damage appears. DO NOT apply later than the 8-leaf stage.

B. INSTRUCTIONS FOR FRUIT CROPS:

Perm-UP Emulsifiable Concentrate Insecticide may be applied to the following fruit crops:
DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT FOR ANY FRUIT CROPS.
 Ground application only permitted. For the fruit crops listed below, mL per 1000 L is for use as a dilute foliar spray. Millilitres per hectare is for use with concentrate sprays. Follow provincial spray calendars for optimum timing of spray applications. Where a rate range is suggested use the higher rate where heavy insect pressure is anticipated. Use sufficient water for thorough coverage.

NOTE: Repeat applications are not advised in orchards where integrated pest management is in effect because severe reductions of beneficial arthropods may result.

Crop(s)	Pest(s)	Concentration (ml of product/ 1000 l of water)	Product rate (ml of product/ hectare)	Minimum reapplication interval	Maximum number of applications per year	Preharvest interval	Remarks
Apple	Winter Moth Eastern Tent Caterpillar	90-175	260-520	14 days	DO NOT make more than 3 applications per year. Of these only 2 drench and 1 foliar application are allowed per year. Do not exceed 1400 mL/Ha per season.	DO NOT APPLY less than 7 days before harvest.	Toxic to bees. DO NOT apply during the crop blooming period.
	Eyespotted Bud Moth	90-175	260-520				
	Plum Curculio White Apple Leafhopper	125-175	360-520				
	Tentiform Leafminer Green Fruitworm Apple Maggot Codling Moth Leafrollers Tarnished Plant Bug Mullein Plant Bug Lesser Appleworm	175	520				Toxic to bees. DO NOT apply during the crop blooming period. When monitoring indicates adults are active (late June to early August) apply to apple trunks as drench spray to runoff using a knapsack, handgun, or airblast sprayer. A second application may be applied 14 days later if adults continue to be present.
Apple Bark Borer Dogwood Borer	Mix 22 mL in 100 L of water with 2 L of Superior Oil.						
Blueberries (vegetative year only)	Thrips	Not applicable	180	Not applicable	DO NOT make more than 1 application per year.	Not applicable	Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.

Crop(s)	Pest(s)	Concentration (ml of product/ 1000 l of water)	Product rate (ml of product/ hectare)	Minimum reapplication interval	Maximum number of applications per year	Preharvest interval	Remarks
							Make one application between mid-May and early June when plants are 1-2 cm tall.
Pear (eastern Canada only)	Pear Psylla (adults & nymphs) Codling Moth Green Fruitworm	175	520	7 days	DO NOT make more than 2 applications per year. Do not exceed 1100 mL/Ha per season.	DO NOT APPLY less than 7 days before harvest.	Toxic to bees. DO NOT apply during the crop blooming period.
Pear (British Columbia)	Pre-Bloom Pear Psylla (over Wintering adults)	175	520	7 days	DO NOT apply more than 2 applications per year. Do not exceed 1100 mL/Ha per season.	DO NOT APPLY less than 7 days before harvest at the (520mL/ha) rate and less than 14 days before harvest at the (greater than 520mL./ha) rate.	Toxic to bees. DO NOT apply during the crop blooming period. Apply up to 1 cm green stage of pear foliage growth. DO NOT USE in B.C. for control of nymphal stages of Pear Psylla.
	Post-Bloom Pear Psylla	175-350	520-1000				
	Codling Moth	175	520				
Peaches Nectarines	Oriental Fruit Moth	90-175	275-520	14 days	DO NOT make more than 2 applications per year. Do not exceed 1040 mL/Ha per season.	DO NOT APPLY less than 7 days before harvest.	Toxic to bees. DO NOT apply during the crop blooming period.
	Plum Curculio Plant Bugs	175	520				
Plums	Plum Curculio	175	520	14 days	DO NOT make more than 2 applications per year. Do not exceed 1100 mL/Ha per season.	DO NOT APPLY less than 7 days before harvest.	Toxic to bees. DO NOT apply during the crop blooming period.
Grapes	Grape Berry Moth	175	360	7 days	DO NOT make more than 4 applications per year, with a maximum of 2 applications per year for climbing cutworm. Do not exceed 1440 mL/Ha per season.	DO NOT APPLY less than 21 days before harvest.	Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination
	Grape Leafhopper	90	175	7 days			
	Climbing Cutworm	Not applicable	180-360	7 days			

Crop(s)	Pest(s)	Concentration (ml of product/ 1000 l of water)	Product rate (ml of product/ hectare)	Minimum reapplicat ion interval	Maximum number of applications per year	Preharvest interval	Remarks
							<p>services, DO NOT apply during the crop blooming period.</p> <p>For climbing cutworms: Apply in a minimum volume of 450 L/ha. Apply at the first sign of cutworm damage in the spring. Apply spray mixture to the trunk and soil surface within a radius of 0.5 metres of the trunk base in the evening. Use low rate for small cutworms and high rate for larger cutworms (2-3 cm). Do not disturb soil for 5 days after application.</p>

C. INSTRUCTIONS FOR OUTDOOR ORNAMENTAL TREES AND SHRUBS (EXCLUDING FORESTRY AND WOODLANDS):

Toxic to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.

DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT FOR ANY ORNAMENTAL TREE OR SHRUB. Ground application only permitted.

For control of certain insect on listed ornamental trees and shrubs grown for ornamental value only (excluding woodlands and forests), including those grown in commercial nurseries.

Application Equipment: The control achieved in any spray operation depends on the care taken during application. The correct type of equipment for the job should be selected. Powered, high-pressure sprayers and mist blowers are most suitable for treating large trees (or stands of trees) that are readily accessible from the ground.

High-pressure sprayers deliver a large volume of dilute spray mixture, and a sufficient quantity should be used to wet all of the foliage. Mist blowers are designed to apply a low volume of a concentrated insecticide mixture, and only enough should be used to moisten the foliage. Handpumped sprayers are usually adequate for treating medium-sized ornamentals up to 4.5 m in height. Mix Perm-UP Emulsifiable Concentrate Insecticide as for dilute spraying.

Crop(s)	Pest(s)	Concentration (ml of product/ 1000 l of water)	(maximum) product rate (ml of product/ hectare)	Minimum reapplication interval	Maximum number of applications per year	Remarks
BALSAM FIR DOUGLAS FIR LARCH (Tamarack) PINE TREES SPRUCE	Douglas Fir Tussock Moth White Marked Tussock Moth Spruce Budworm Coneworm Open Feeding Sawflies	Not applicable	45-90	Not applicable	Make one application per year	Apply using application equipment available and dilutions suitable to equipment. Applications should be calculated and made on the basis of volume per tree to ensure proper coverage while limiting off-target spray.
OTHER CONIFEROUS TREES & SHRUBS	Douglas Fir Tussock Moth White Marked Tussock Moth Spruce Budworm (Spruce) Coneworm Open Feeding Sawflies	Not applicable	45-90	Not applicable	Make one application per year	Control of the listed insects on coniferous tree and shrub species not listed is acceptable provided the species is tested for phytotoxic effect prior to use. Spray a small, inconspicuous portion of the tree or shrub under test and wait for 24 hours to see if any adverse effects appear.
DECIDUOUS TREES & SHRUBS	Eastern Tent Caterpillar Euonymus Webworm Fall Webworm Forest Tent Caterpillar Open Feeding Aphids Gypsy moth	90	Not applicable	Not applicable	Make one application per year	Apply as a dilute spray (for mist blowers use 75 L of water). Apply when insects are first noticed.
SEEDLING TREE NURSERIES	Cutworm	Not applicable	180	21 days	DO NOT make more than 2 applications per year. Do not exceed 360 mL/Ha per season.	Application should be made under warm, moist conditions when larvae are small (up to 2.5 cm).

D. INSTRUCTIONS FOR GREENHOUSE ORNAMENTALS:

Toxic to bees and other beneficial insects. May harm bees and other beneficial insects including those used in greenhouse production. Do not apply when bees or other beneficial insects are foraging in the treatment area.

DO NOT allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

NOTE: Do not mix Perm-UP Emulsifiable Concentrate Insecticide with other pesticides, as many plant varieties may respond differently to mixtures of chemicals. On waxy leaf ornamentals, the use of a spreader sticker may improve the effectiveness of Perm-UP Emulsifiable Concentrate Insecticide.

Crop(s)	Pest(s)	Concentration (ml of product/100 l of water)	Maximum product rate	Minimum reapplication interval	Maximum number of applications/ crop cycle	Remarks
ASPIDISTRA BEGONIA BOSTON FERN CHRYSANTHEMUM CORDYLINE DIEFFENBACHIA DRACAENA	Greenhouse Whitefly	Mix 26 mL of Perm-UP Emulsifiable Concentrate Insecticide in 100 L of water.	260 mL/ha	7 days	DO NOT make more than 6 applications per year. Do not exceed 1560 mL/Ha per season.	Apply to cover all foliage thoroughly. Although no damage has been recorded, it is advisable to keep spray off open blooms in greenhouses.
FICUS FUCHSIA GERANIUM GEBERA IMPATIENS PETUNIAS PHILODENDRON POINSETTIAS ROSES SANSEVERIA SPIDER PLANTS	Chrysanthemum Leafminer	Mix 26mL of Perm-UP Emulsifiable Concentrate Insecticide in 100 L of water.				Apply using conventional spraying equipment when insect populations develop.

E INSTRUCTIONS FOR INSIDE OF FARM BUILDINGS AND FOOD PROCESSING PLANTS:

DO NOT apply in residential areas. Residential areas are defined as any use site where the general public, including children, could be exposed during or after application. For structural uses, in residential sites, this includes homes, schools, restaurants, public buildings, modes of transport in areas where passengers are present, or any other areas where the general public including children may potentially be exposed.

FARM BUILDINGS	PESTS	mL/1000 LITRES	REMARKS
Beef Barns, Dairy Barns, Poultry Houses, Stables, Food Processing Plants*, Plants such as Dairies, Feedlots	House Fly, Stable Fly	5200 (or 25 mL per 5 L)	RESIDUAL SURFACE SPRAY: Apply at the rate of 5 L per 100 m ² of surface. Do not apply directly to animals or poultry. In dairies, apply only when not in operation. Thoroughly clean all milk utensils before resuming operations. For animal housing, maximum of 12 applications/year, and a minimum RTI of 14 days. Livestock returned to treated areas cannot be slaughtered for a minimum of 7 days after the treatment was applied to the livestock facility.

*A food/feed handling establishment is a place other than private residences in which food/feed is held, processed, prepared and/or served. Non-food/feed areas of food/feed handling establishments includes garbage rooms, lavatories, floor drains to sewers, entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets, and storage for canned, bottled or packaged products. Food/feed areas of food/feed handling establishments includes areas of receiving; serving; storing of dry, cold, frozen or raw foods/feed; packaging such as canning, bottling, wrapping and boxing; preparing such as cleaning, slicing, cooking and grinding; storing edible waste and enclosed processing systems such as mills, dairies, edible oils and syrups.

F. INSTRUCTIONS FOR OUTDOOR TREATMENTS ON THE EXTERIOR SURFACES OF LISTED BUILDINGS:

How to Apply:

Spot Application: Spot application is localized to a surface area not more than 0.2 m². Spots are not to be adjoining. The combined area of spots is not to exceed 10% of the total surface area treated.

Outdoor Structural Broadcast: Outdoor broadcast application is to large outdoor structural surfaces (i.e. roofs, walls, doors, windows and foundations.).

For use at barracks, mess halls, drill halls, hangers, warehouses, equipment buildings, farm buildings and other non-residential buildings where cluster flies and spiders have become a nuisance. DO NOT treat patios, porches, decks, gazebos or play structures.

DO NOT apply in residential areas. Residential areas are defined as any use site where the general public, including children, could be exposed during or after application. For structural uses, in residential sites, this includes homes, schools, restaurants, public buildings, modes of transport in areas where passengers are present, or any other areas where the general public including children may potentially be exposed.

Pest(s)	Application method (see how to apply for further information)	Concentration (ml of product/10 l of water)	(maximum) product rate	Notes for specific pests:
Cluster Flies	Spot Outdoor Structural Broadcast	Prepare a spray mixture of 130 mL in 10 L of water.	DO NOT exceed a rate of 2.4 L of spray mixture per 100 m ² .	Cluster flies are members of the fly family (Diptera) and resemble house flies. They are distinguished by their sluggish and erratic behaviour and by wings that overlap when at rest. They derive their name from their habit of entering a building in the fall and clustering together to overwinter. The search for protected places to overwinter begins as days shorten in mid-August. Warm sunny walls draw the flies as the climate cools during this search. This offers an opportunity to control the fly population outside the building. Spray this mixture to the outside walls, including under the eaves, soffits and window trim. The effective time of application is between mid-August and the end of September depending on weather conditions.
Spiders	Spot Outdoor Structural Broadcast	Mix 130 mL in 10 L of water and spray.	DO NOT exceed 2.4 L of spray mixture per 100 m ² .	Apply to the exterior surfaces of buildings where spiders congregate especially under eaves and soffits of buildings. Apply when heavy infestations of spiders are observed.

G. INSTRUCTIONS FOR TOPICAL APPLICATIONS TO BEEF CATTLE, NON-LACTATING DAIRY CATTLE, POULTRY AND SHEEP .

1. SPRAY APPLICATION USING KNAPSACK, HANDGUN AND LOW PRESSURE SPRAYER

DAIRY CATTLE - Non-Lactating:

Do not apply within 30 days of freshening.

Leave a 7 day interval between last sprayer and slaughter.

Maximum of 2 applications/year, a minimum RTI of 8 days. Do not exceed 5 mL/animal/year.

INSECTS	RATE	APPLICATION
HORN FLIES, FACE FLIES, BLACK FLIES	Mix 125 mL with 100 L water in a sprayer.	Apply 1 to 2 L of spray per animal over whole body. For horn and face flies, do not apply more than once every two weeks. For black flies, a repeat application may be required after 8 days.
HORN FLIES, FACE FLIES	Mix 13 mL with 1 L water in a low pressure sprayer.	Apply 25 to 50 mL of spray mix per animal. Apply to face and shoulders. Do not apply more than once every two weeks.
LICE	Mix 125 mL with 400 L water in a sprayer.	Spray until entire animal is thoroughly covered. A second treatment at 14 to 21 days is recommended.
BEEF CATTLE:		
INSECTS	RATE	APPLICATION
HORN FLIES, FACE FLIES, LICE BLACK, FLIES	Mix 125 mL with 400 L water in a sprayer.	Spray until entire animal is thoroughly covered. For lice, a second treatment at 14 to 21 days is recommended. For black flies, A repeat application may be required after 8 days. Leave a seven day interval between last spray and slaughter. Do not exceed 5 mL/animal/year.
POULTRY:		
INSECTS	RATE	APPLICATION
NORTHERN, FOUL MITES	Mix 125 mL with 100 L water in a sprayer.	Apply 4 L of spray mix to each 100 birds. Spray from below to ensure thorough treatment of the vent area. Maximum of 2 applications/animal/year, a minimum RTI of 14 days. Do not slaughter within 7 days of treatment. Do not exceed 0.1 mL/animal/year.
SHEEP:		
INSECTS	RATE	APPLICATION
SHEEP KED	Mix 125 mL with 50 litres water in a sprayer.	Do not treat sick animals. Spray using knapsack and handgun until entire animal is thoroughly covered. Do not exceed a maximum of 150 mL of spray solution per animal. One application per year; treatment is in fall or winter before lambing and shearing. Do not contaminate feed or watering area. Do not apply to lambs or sheep within 1 day of slaughter. Do not exceed 0.375 mL/animal/year. Do not make more than 1 application per animal per year.

2. BACK-RUBBER/SELF-TREATMENT OILERS (Pest-Doom, Lewis)

For treatment of beef cattle in pasture or range situations with oilers placed under free or forced use conditions. Not for use with lactating dairy cattle.

BEEF CATTLE:		
BLACK FLIES	Dilute 125 mL with 10 L lightweight oil.	Calibrate self-treatment oilers so the rate per animal does not exceed 0.125 g permethrin per animal per day. Utilize a one day holding period between termination of use and slaughter.

H) INSTRUCTIONS FOR CONIFER SEEDLINGS GROWN IN FORESTRY NURSERY GREENHOUSES

Toxic to bees and other beneficial insects. May harm bees and other beneficial insects including those used in greenhouse production. Do not apply when bees or other beneficial insects are foraging in the treatment area.

DO NOT allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

Crop(s)	Pest(s)	Concentration (ml of product/ 100 l of water)	Maximum product rate (ml of product/ hectare)	Minimum reapplication interval	Maximum number of applications per crop cycle/year	Remarks
CONIFER SEEDLINGS GROWN IN FORESTRY NURSERY GREENHOUSES: Spruce Pine Cedar Yew Juniper	Strawberry Root Weevil	65 mL of Perm-UP Emulsifiable Concentrate Insecticide per 100 L of water	65	21 days	DO NOT make more than 2 applications per year. Do not exceed 130 mL/Ha per season.	Apply 65 mL of product per 100 L of water to runoff when adults emerge and before egg laying begins. One application correctly timed per year should give control of adults. A second treatment may be made 21 days after monitoring shows continued presence of adults.

D) INSTRUCTIONS FOR WOODLAND USES (RESTRICTED USES):

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

NATURE OF RESTRICTION: To be used only in the manner authorized; contact provincial regulatory authorities about use permits which may be required.

RESTRICTED USES:

WOODLAND USE: DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT. Apply by ground application only. Use in Christmas tree plantations, high valued stands used for seed production, and other high-valued woodland areas that are extensively managed. Contact provincial or federal forestry and/or fishery officials for advice before local spraying of woodlands. This product may be used in woodlands under supervision of provincial or federal forestry officials.

APPLICATION EQUIPMENT:

The control achieved in any spray operation depends on the care taken during application. The correct type of equipment for the job should be selected. Powered, high-pressure sprayers and mist blowers are most suitable for treating large trees (or stands of trees) that are readily accessible from the ground.

High-pressure sprayers deliver a large volume of dilute spray mixture, and a sufficient quantity should be used to wet all of the foliage. Mist blowers are designed to apply a low volume of a concentrated insecticide mixture, and only enough should be used to moisten the foliage. Hand-pumped sprayers are usually adequate for treating medium-sized ornamentals up to 4.5 m in height. Mix Perm-UP Emulsifiable Concentrate Insecticide as for dilute spraying. PRECAUTION: WHEN USING AS DIRECTED IN WOODLANDS, DO NOT APPLY WITHIN 100 M OF PRODUCTIVE FISHERY WATERS OR WATERFOWL HABITATS. SEE ADDITIONAL PRECAUTIONS ON THIS LABEL.

Crop(s)	Pest(s)	Concentration (ml of product/ 1000 l of water)	(maximum) product rate (ml of product/ha)	Minimum reapplication interval	Maximum number of applications per crop cycle/year	Remarks
BALSAM FIR DOUGLAS FIR LARCH (Tamarack) PINE TREES SPRUCE	Douglas Fir Tussock Moth White Marked Tussock Moth Spruce Budworm Coneworm Open Feeding Sawflies,	Not applicable	45-90	Not applicable	1 application per year	Apply using application equipment available and dilutions suitable to equipment. Make one application per year. Applications should be calculated and made on the basis of volume per tree to ensure proper coverage while limiting off-target spray.
OTHER CONIFEROUS TREES & SHRUBS	Douglas Fir Tussock Moth White Marked Tussock Moth Spruce Budworm Coneworm Open Feeding Sawflies	Not applicable	45-90		1 application per year	Control of the listed insects on coniferous tree and shrub species not listed is acceptable provided the species is tested for phytotoxic effect prior to use. Spray a small, inconspicuous portion of the tree or shrub under test and wait for 24 hours to see if any adverse effects appear.

DECIDUOUS TREES & SHRUBS	Eastern Tent Caterpillar Euonymus Webworm Fall Webworm Forest Tent Caterpillar Open Feeding Aphids	90	Not applicable		1 application per year	Apply as a dilute spray (for mist blowers use 75 L of water). Apply when insects are first noticed.
SEEDLING TREES IN FORESTATION AREAS	Cutworm	Not applicable	175		1 application per year	Application should be made under warm, moist conditions when larvae are small (up to 2.5 cm).

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than UPL Agrosolutions Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, UPL Agrosolutions Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

DIRECTION FOR USE: Suppression of Small Hive Beetle (*Aethina tumida*) around honeybee colonies.

NOTE: Permethrin is highly toxic to bees and extreme caution must be taken to avoid Perm-up contact with the bees or hive through spray, spray drift or any residual exposure on any surfaces that bees may contact. When hives are present, applications may only be made by a soil drench application. Hand pump sprayers may only be used when hives are not present and only for pre-placement cleanup of apiary. Do not contaminate any food or water source that may be in the area or apply during windy conditions. For better soil penetration and improved efficacy, cut grass or create bare soil exposure around hive prior to application.

Mix 1.16 ml product in 1 L water, and apply as a light soil drench in an area 45 – 60 cm wide in front of each hive known to have small hive beetle infestations. Applications are made in late evening, after bees become inactive. Alternatively, applications can be made as a pre-placement cleanup of the apiary, applied to ground surface 24 to 48 hours prior to hive placement.

Make a maximum of two applications per year, one in the spring and one in the fall.

The ground where application is to be made should be mowed or bare soil prior to application. Ensure no pooling of drench solution where bees could potentially collect

contaminated water. For best beekeeping practices, hives must be elevated on hive stands and a landing surface must be provided after application, such as a landing platform attached to the hive entrance. Monitoring activities as part of a good IPM strategy is recommended.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Perm-UP Emulsifiable Concentrate Insecticide contains a Group 3 insecticide. Any insect population may contain individuals naturally resistant to Perm-UP Emulsifiable Concentrate Insecticide and other Group 3 insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of Perm-UP Emulsifiable Concentrate Insecticide or other Group 3 insecticides/acaricides with different groups that control the same pests.
- Use tank mixtures with insecticides/acaricides from a different group that is effective on the target pest when such use is permitted.
- Insecticide/acaricide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact UPL Agrosolutions Canada Inc. at 1-800-438-6071.

FIRST AID

IN CASE OF POISONING Contact a physician or a poison control centre **IMMEDIATELY**.

IF SWALLOWED Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF ON SKIN/CLOTHING Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF IN EYES Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Contains petroleum distillate. - vomiting may cause aspiration pneumonia. Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically.

STORAGE

Store in a cool, dry, well-ventilated area away from feed and food stuffs and out of the reach of children and animals. Keep product from freezing. Store above-12° C.

SPILL CLEAN-UP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag.

For spills and leaks; contain the liquid with dikes of inert material (soil, clay, kitty litter, etc.) Absorb the spill into the inert material and shovel into a sealable waste container.

On hard surfaces: Sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

On soil: Remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. For more information on the disposal of waste and the clean up of spills, contact the Provincial Regulatory Agency or the Manufacturer.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label.

UPL, the UPL logo and PERM-UP are registered trademarks of a UPL Corporation Limited Group Company.

®/TM All other products are trademarks of their respective companies.

©2021 UPL Corporation Limited Group Company