

2016-2982
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GROUP

1B

INSECTICIDE

[Container label]
DIMETHOATE

CYGON[®] 480-ORN
SYSTEMIC INSECTICIDE - AGRICULTURAL

Emulsifiable Concentrate - Contains Dimethoate

WARNING (Skull & Crossbones) **POISON**

KEEP OUT OF REACH OF CHILDREN

- **A Systemic Insecticide for the Control of Insects on Listed Flowering Plants, Ornamental Shrubs and Trees**
- **A Contact and Residual Insecticide for the Control of Houseflies Outdoors & in Empty Animal Quarters**

GUARANTEE: dimethoate 480 g/L

READ THE LABEL AND ATTACHED PAMPHLET BEFORE USING

SHIP and STORE BETWEEN 4°C and 30°C

REGISTRATION NUMBER 25650 PEST CONTROL PRODUCTS ACT

EMERGENCY TELEPHONE NUMBER

In case of medical emergency involving this product, call toll free, day or night, 1-800-331-3148

Registrant:

FMC Corporation

2929 Walnut Street

Philadelphia, PA 19104

USA

1-800-331-3138

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THIS PRODUCT IS NOT TO BE USED AROUND HOMES OR OTHER RESIDENTIAL AREAS SUCH AS PARKS, SCHOOL GROUNDS, AND/OR PLAYING FIELDS. IT IS NOT FOR USE BY HOMEOWNERS OR OTHER UNCERTIFIED USERS

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN

May be harmful or fatal if swallowed, inhaled or absorbed through the skin.

Concentrate material may cause eye irritation.

Avoid breathing vapours or spray mist.

Use only in well ventilated areas.

Avoid contact with skin, eyes or clothing.

Wash thoroughly after using and before eating, drinking or smoking.

Keep the following personal protective equipment immediately available for use in case of emergency (for example, a broken package, spill, or equipment breakdown): chemical-resistant coveralls, chemical-resistant gloves, chemical-resistant head gear and a respirator.

Not for use in greenhouses.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Do not apply directly to animals. Remove livestock and poultry from buildings when spraying.

Do not contaminate food or feeds.

Do not contaminate feed troughs, drinking fountains or litter.

Do not use in milk processing rooms or dwellings.

Do not mix with whitewash or apply within 2 weeks of whitewashing.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact FMC at www.fmccrop.ca.

ENVIRONMENTAL PRECAUTIONS:

This product contains a petroleum distillate, which is moderately to highly toxic to aquatic organisms.

Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

TOXIC to birds, bees and other wildlife. 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 groundcover 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 applications on crops that are highly attractive to pollinators (outdoor ornamentals excluding coniferous evergreens), or when using managed bees for pollination services:

DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.

For applications on all other crops:

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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.

TOXIC to birds, mammals and aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (for example, soils that are compacted or fine textured such as clay).

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

FIRST AID:

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

CALL A PHYSICIAN OR POISON CONTROL CENTRE IMMEDIATELY IN ALL CASES OF SUSPECTED POISONING.

IF ON SKIN: 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.

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.

TOXICOLOGICAL INFORMATION:

Dimethoate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, and runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote.

Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician.

ATROPINE IS ANTIDOTAL:

Give 1 or 2 mg of atropine sulphate intramuscularly or intravenously immediately and every 15 to 30

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minutes until full atropinization has been attained.

Pralidoxime chloride (2-PAM: PROTOPAM chloride) may be effective as an adjunct to atropine. Use according to label directions.

DECONTAMINATION:

If accidental spillage of CYGON 480-ORN SYSTEMIC INSECTICIDE should occur, scrub contaminated area immediately with a strong laundry soap solution or use household lye. Detergents are not satisfactory for this purpose. Repeated scrubbing is necessary on plain wood surfaces.

DISPOSAL PROCEDURE (Re-fillable containers):

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose. For information on 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.

DISPOSAL PROCEDURE (Disposable containers):

Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.

Follow provincial instruction for any required additional cleaning of the container prior to its disposal.

Make the empty container unsuitable for further use.

Dispose of container in accordance with provincial requirements.

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STORAGE PRECAUTIONS:

Do not use, pour, spill or store near heat or open flame.

Keep out of direct sunlight.

Ship and store between 4°C and 30°C.

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. The user assumes the risk to persons or property that arises from any such use of this product.

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READ THIS PAMPHLET BEFORE USING

FOR RATES AND TIMES OF APPLICATION SEE THE ADDITIONAL INFORMATION IN THIS PAMPHLET

HORTICULTURAL USE:

CYGON 480-ORN SYSTEMIC INSECTICIDE can be used to control various insects and scales on outdoor flowering plants, ornamental shrubs and trees.

HOUSEFLY CONTROL OUTDOORS & IN EMPTY ANIMAL QUARTERS:

CYGON 480-ORN SYSTEMIC INSECTICIDE controls houseflies for up to 6 weeks. Use a spray solution containing 200-250 mL of CYGON 480-ORN SYSTEMIC INSECTICIDE per 10 L of water. Repeat applications should be made when necessary. Good sanitation is an essential part of any effective fly control program. DO NOT use in homes.

IN DAIRY BARNS, HOG PENS, CALF BARNS, POULTRY HOUSES & OTHER FARM BUILDINGS:

Apply a residual spray to the ceilings, walls, stanchions. Thoroughly wet all fly resting areas to the point of runoff. Five to ten litres of spray will cover 100 m² of surface. For localized fly control apply spot sprays with knapsack or similar type sprayer to doorways, around windows, counters and other areas

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frequented by flies.

Do not use in milk processing rooms. Remove animals before treatment. Do not contaminate food, feed or water troughs. If feed troughs or drinking fountains are contaminated, rinse thoroughly with potable water.

FLOWERING PLANTS, ORNAMENTAL SHRUBS AND TREES

1. CYGON 480-ORN SYSTEMIC INSECTICIDE is a true systemic insecticide. A systemic insecticide is absorbed into the system of the plant upon application and, as with all systemic materials, may in specific plants cause reactions which are neither predictable nor common to all members of the species.
2. FOR PROPER TIMING of treatments for the control of specific pests on ornamental plants, consult local agricultural authorities. In general, apply adequate spray for good coverage when pests appear or when damage is first observed, unless otherwise indicated. Do not overdose or overspray.
3. EXPERIENCE has shown when dealing with species that may be injured by foliar application, soil drenches are safer on those plants for which they are recommended.
4. DO NOT USE on ornamental plants not listed. While CYGON 480-ORN SYSTEMIC INSECTICIDE may not always cause injury to species not listed, injury may occur to individual plants or local areas.
5. When IN DOUBT about plant safety it is advisable to spray a single branch or dip several leaves in the spray solution. A waiting period of 3 to 4 days will usually indicate if plant damage will result.
6. DO NOT SPRAY the following species unless you have tested single branches or leaves to ascertain safety:

American elm	Mop-head elm
Norway maple	Mock orange
Sunburst locust	Moraine honeylocust

or other ornamentals not listed in this pamphlet.
7. There has been no report of damage by CYGON 480-ORN SYSTEMIC INSECTICIDE to any of the common evergreen species grown in Canada provided recommended rates have been followed.
8. For Pest Control - birds and other wildlife in treated areas may be harmed.
9. Do not apply foliar sprays during heat of the day or when temperatures are exceedingly high.

APPLICATION DIRECTIONS FOR USE:

FIELD SPRAYER APPLICATION: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. 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 16 km/h at the application site as measured from a height of two metres off the ground. DO NOT apply with spray

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droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

AERIAL APPLICATION DIRECTIONS FOR USE:

Use special care in aerial applications where damage from drift can be greater.

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 this label. Where no rate for aerial application appears for the 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:

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 *Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core and Aerial Module*, developed by CAPCO.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Appropriate buffer zones should be established between treatment areas and aquatic systems and treatment areas and significant wildlife habitat. Do not contaminate water through spray drift or by cleaning of equipment or disposal of wastes.

Do not apply this product directly to, or otherwise permit it to come into direct contact with non-target crops or other non-target species and do not permit spray mists to drift onto them. Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that result in fine particles (mist). Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure. Apply only when there is little or no hazard from spray drift. Small quantities of the spray, which may not be visible, may contaminate and damage sensitive non-target habitat. A method must be used to detect air movement, lapse conditions, or temperature inversions (stable air) such as the use of balloons or a continuous smoke column at or near the spray site or a smoke generator on the spray equipment. If the smoke develops into layers or indicates a potential for hazardous spray drift, do not spray. Do not spray in winds exceeding 8 km/hour. Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

Do not use human flaggers.

Operator Precautions:

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

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

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The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during 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.

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Mixing/loading liquids (for all uses except forestry):

Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

Mixing/loading liquids (forestry: hemlock, spruce and balsam fir):

Use a closed system for aerial mixing/loading for forestry use (hemlock, spruce and balsam fir). Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield.

Mixing/loading liquids (forestry: Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):

During mixing, loading, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

Applying by air:

Wear cotton coveralls over long pants, and a long-sleeved shirt, shoes, plus socks.

Applying by groundboom:

During groundboom application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.

Applying by airblast:

During airblast application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.

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If a closed cab is not feasible, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and chemical-resistant headgear. Chemical resistant headgear includes so'westers, or large brimmed, water-proof hats, and hoods with sufficient neck protection. Avoid touching face or other unprotected parts of the body during application.

Applying by handheld equipment:

Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides. Limit the amount of active ingredient handled per day to 2.8 kg per person (for example, approximately 2950 L at a rate of 0.96 g a.i./L) when applying by handheld equipment.

Applying by manually-pressurized handwand or backpack (Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):

During manually-pressurized handwand, or backpack application, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister approved for pesticides. DO NOT apply using mechanically-pressurized handgun equipment. Only for use with manually-pressurized hand wands or backpack sprayers.

Applying by right-of-way sprayer:

During mixing, loading, application, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical-resistant gloves, goggles or a face shield.

Applying by soil drench, soil injection or chemigation:

Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

Product Specific Precautions:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-331-3148, or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum of 5-20 L of spray solution per hectare. Use boom pressure of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices.

RESISTANCE MANAGEMENT

For resistance management, please note that Cygon 480-ORN SYSTEMIC INSECTICIDE contains a Group 1B insecticide or acaricide. Any insect/mite population may contain individuals naturally resistant to Cygon 480-ORN SYSTEMIC INSECTICIDE and other Group 1B insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used

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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 Cygon 480-ORN SYSTEMIC INSECTICIDE or other Group 1B insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides/acaracides from a different group when such use is permitted.
- Insecticide/acaracide use should be based on an IPM program that includes scouting, 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 FMC Corporation at 1-800-331-3148 or at www.fmccrop.ca.

NOTICE TO USER:

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DIRECTIONS FOR USE:

The uses listed below are foliar sprays unless otherwise indicated: (outdoor plants only).

Do not apply to flowering plants by air.

Flowering Plants	Insects Controlled	Rate of CYGON 480-ORN SYSTEMIC INSECTICIDE		Remarks*
		10 L water	1,000 L water	
Azaleas	Lace bugs, leaf miners, mites, white flies	10 mL	1 L	Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 14 Restricted Entry Interval (REI) – 2 days To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.
Camellias	Aphids,	10 mL	1 L	<u>Foliar spray:</u> Apply 2 sprays 6 weeks apart during the

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	mites, camellia scales			<p>first year. In subsequent years make an application soon after first growth begins in the spring.</p> <p><u>Soil drench:</u> Apply CYGON 480-ORN SYSTEMIC INSECTICIDE as a soil drench around the base of plants in early spring at the rate of 60 mL in 10 L water per plant up to 2 m tall. Increase the rate proportionately for larger plants.</p> <p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 10</p> <p>Restricted Entry Interval (REI) – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Carnations	Aphids, thrips, mites	10 mL	1 L	<p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 14</p> <p>Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Day lilies	Aphids, thrips	20 mL	2 L	<p>Max Number of Applications per Year – 1</p> <p>Restricted Entry Interval (REI) – 7 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Euonymus	Aphids, scales	20 mL	2 L	<p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 14</p> <p>Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Gardenias	White flies	10 mL	1 L	<p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 14</p> <p>Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>

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Gerberas	Thrips	10 mL	1 L	<p>Max Number of Applications per Year – 1 Restricted Entry Interval (REI) – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Gladioli	Aphids, thrips	10 mL	1 L	<p>Max Number of Applications per Year – 1 Restricted Entry Interval (REI) – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Iris	Aphids, iris borers, thrips	20 mL	2 L	<p>For borer control, spray when new leaves are 12-15 cm tall.</p> <p>Max Number of Applications per Year – 1 Restricted Entry Interval (REI) – 7 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Poinsettias (outdoor plants)	Aphids, white flies, mites, mealy bugs	10 mL	1 L	<p>Max Number of Applications per Year – 1</p> <p>Restricted Entry Interval (REI) – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Roses	Aphids, leafhoppers, mites, thrips	10 mL	1 L	<p>Apply thoroughly every 4 weeks during growing season.</p> <p>Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 10 Restricted Entry Interval (REI) – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>

*Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated.

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Do not apply to ornamental trees and shrubs by air.

Ornamental Shrubs & Trees (outdoor only)	Insects Controlled	RATE of CYGON 480-ORN SYSTEMIC INSECTICIDE per		Remarks*
		10 L water	1,000 L water	
Arborvitae	Aphids, bagworms, mites	20 mL	2 L	<p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 14</p> <p>Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>
Birch	Aphids, leaf miners	5 mL	500 mL	<p><u>Foliar spray:</u> For leaf miners, apply when leaves are expanded (about mid-May); repeat the last week in June.</p> <p><u>Soil drench:</u> For full-season control CYGON 480-ORN SYSTEMIC INSECTICIDE may be used as a soil drench once in early May when the leaves start to open. Apply CYGON 480-ORN SYSTEMIC INSECTICIDE undiluted at a rate of 11mL per cm of stem basal diameter (cumulative total of all stems) evenly into small shallow holes made with a sharp instrument at the dripline of the tree or clump. Close the holes with soil. Drench thoroughly with water immediately so as to saturate the root system. One soil drench treatment in May should give control of birch leafminers for the complete season. DO NOT make more than 1 soil drench treatment per season. Soil drenches may not be effective on newly-transplanted birches where the root system is not well established. Some hybrid varieties e.g. cutleaf and silver birch may be damaged by excessive amount of CYGON 480-ORN SYSTEMIC INSECTICIDE. Therefore, apply no more than recommended dosage.</p> <p>Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Boxwood	Mites, leaf miners, mealy bugs	10 mL	1 L	<p>For leaf miners, apply in the spring when leafminers flies first appear or in early summer for control of larvae in the infested leaves.</p> <p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 14</p>

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				<p><u>Restricted Entry Intervals (REI):</u> Thinning – 7 days All other activities – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Cedar	Mites, leaf miners	20 mL	2 L	<p>For leaf miners apply in early May or late August. Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 14</p> <p><u>Restricted Entry Intervals (REI):</u> Thinning – 18 days Hand-Line Irrigation – 3 days All other activities – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Douglas fir (seed tree)	<i>Cone insects:</i> cone or gall midges, cone moths, seed chalcids, scale midges	5 L per 100 L of water Apply with mist blower.		<p>Application should be made when cones are at or near the pendant stage. Complete coverage of the cones and foliage in the cone-bearing area of the tree is important for satisfactory results. Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 10</p> <p><u>Restricted Entry Intervals (REI):</u> Seed cone harvesting – 48 days Scouting – 5 days Grading, animal control, baiting – 1 day</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>
		2.5 L per 100 L of water Apply as a wetting spray.		
Larch	Cone maggots, seed wasps	50 mL	5 L	<p>One application per season; apply within 3 weeks after pollination; sprayed to run-off on foliage; ground hydraulic sprayer or mist sprayer.</p> <p>Restricted Entry Interval (REI) – 1 day</p> <p>To protect pollinators, follow the instructions</p>

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				<p>regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Holly (English, American)	Mites, soft scales, leaf needle miners	10 mL	1 L	<p>For leaf miners apply in spring when leaf miner flies first appear or in early summer for the control of larvae in the infested leaves. Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 14 Restricted Entry Interval (REI) – 12 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Juniper	Aphids, bagworms, midges, mites	20 mL	2 L	<p>Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 14 Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>
Lilac (<i>Syringa spp.</i>)	Leaf miners	15 mL	1.25L	<p>Apply 2 sprays 6 weeks apart. Applications should be made as soon as any signs of the leaf miners appear or first application should be started in early June. Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 10 Restricted Entry Interval (REI) – 15 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Oak	Golden oak scales	20 mL	2 L	<p>Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 14</p> <p><u>Restricted Entry Intervals (REI):</u> Thinning – 18 days Hand-Line Irrigation – 3 days</p>

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				<p>All other activities – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p> <p>TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.</p>
Pine (mugho, red, Scots)	<p>Red and black-headed pine sawfly larvae</p> <p>Aphids, bagworms, European pine shoot moths, Nantucket pine tip moths, Zimmerman pine moths</p>	<p>10 mL</p> <p>20 mL</p>	<p>1 L</p> <p>2 L</p>	<p>For pine shoot moths apply in early spring and again in mid-June, thoroughly wetting branch tips.</p> <p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 14</p> <p><u>Restricted Entry Intervals (REI):</u> Thinning – 18 days Hand-Line Irrigation – 3 days All other activities – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>
Spruce (woodland use)	Seed and cone insects	104 - 208 mL	10.4 - 20.8 L	<p>Thoroughly spray cone-bearing portions of tree to point of runoff using ground hydraulic spray equipment, when strobili are closed and turning but before they reach the horizontal position. Contact your local forest pest control office for more information on timing and spray application as well as spruce species that may be treated.</p> <p>Max Number of Applications per Year – 2</p> <p>Minimum Application Interval (Days) – 10</p> <p><u>Restricted Entry Intervals (REI):</u> Seed Cone harvesting – 49 days Scouting – 5 days Hand pruning, staking, tying – 27 days Grading, animal control, baiting – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>
Sitka spruce	Sitka spruce weevils	250 mL	25 L	<p>Thoroughly spray the terminal growth to the point of runoff at the time of egg laying (usually during the first half of May).</p>

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				<p>Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 10</p> <p><u>Restricted Entry Intervals (REI):</u> Seed Cone harvesting – 49 days Scouting – 5 days Hand pruning, staking, tying – 27 days Grading, animal control, baiting – 2 days</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>
Taxus	Mites, Fletcher scales, mealy bugs	20 mL	2 L	<p>For Fletcher scales, spray at the end of June and again 10 days later when crawlers are moving. Max Number of Applications per Year – 2 Minimum Application Interval (Days) – 14</p> <p>Restricted Entry Interval (REI) – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>

* Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated.

<p>NOTE TO USER:</p> <p>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. The user assumes the risk to persons or property that arises from any such use of this product.</p> <p>NATURE OF RESTRICTION:</p> <p>Restricted Use - Aerial Application This product may be used only in the manner authorized. Consult provincial regulatory authorities about use permits which may be required.</p>			
Hemlock	Mites, scales, spruce needle miners	<p>For aircraft application use 1.5 L of CYGON 480-ORN SYSTEMIC INSECTICIDE in 5-20 L water per hectare, applied as a uniform spray of fine droplets. Application should be made as soon as larvae hatch. Max Number of Applications per Year – 1</p> <p><u>Restricted Entry Intervals (REI):</u> Thinning – 13 days All other activities – 12 hours</p> <p>To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.</p>	

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Buffer zones:

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

The buffer zones specified in Table 1 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.

Table 1 Buffer zones

Method of Application	Crop		Buffer Zones (metres) Required for the Protection of :			
			Freshwater habitat of Depth:		Estuarine/Marine habitats of Depth:	
			Less than 1m	Greater than 1m	Less than 1m	Greater than 1m
Field sprayer*	Flowering plants		3	1	4	2
Airblast	Christmas trees, ornamentals	Early growth stage	10	4	15	5
		Late growth stage	5	2	5	3
	Woodland	Early growth stage	30	20	30	25
		Late growth stage	20	10	25	15
	Sitka spruce	Early growth stage	35	25	40	30
		Late growth stage	25	20	30	20
Aerial	Shrubs and trees	Fixed wing	35	1	50	15
		Rotary wing	20	1	30	5
	Forestry hemlock, spruce, balsam fir	Fixed wing	90	1	150	15
		Rotary wing	55	1	90	2

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.