

GROUP	4	FUNGICIDE
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## SUBDUE MAXX<sup>®</sup>

FUNGICIDE

Emulsifiable Concentrate

COMMERCIAL

For control of certain diseases in ornamental plants, conifers, golf course turf and turf for golf course and sod production.

For Suppression of Sudden Oak Death caused by *Phytophthora Ramorum* on those ornamentals deemed susceptible to this disease by the Canadian Food Inspection Agency (CFIA). For a completed list of the ornamental species, refer to the publication "List of Plants Regulated for *Phytophthora Ramorum* (Sudden Oak Death)," which is updated regularly. [www.inspection.gc.ca/english/plaveg/protect/dir/sodspe.shtml](http://www.inspection.gc.ca/english/plaveg/protect/dir/sodspe.shtml).

**GUARANTEE:**

Metalaxyl-M and S-isomer..... 240 g/L

**READ THE LABEL AND PAMPHLET BEFORE USING  
KEEP OUT OF REACH OF CHILDREN**

**CAUTION: EYE IRRITANT**

REGISTRATION NO. **27055**  
PEST CONTROL PRODUCTS ACT

**Syngenta Canada Inc.**  
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Telephone: 1-877-964-3682

Pamphlet

## 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.

## FIRST AID

**IN CASE OF POISONING**, contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**If swallowed**, call a poison control centre or doctor **IMMEDIATELY** for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or 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 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 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.

## TOXICOLOGICAL INFORMATION

Treat symptomatically.

## PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed. Avoid inhalation of spray mist. Avoid contact with skin and eyes. Avoid contamination of food and feed and domestic or irrigation water supplies, lakes, streams and ponds.

SUBDUE MAXX<sup>®</sup> Fungicide is irritating to skin and eyes. Do not get in eyes, on skin or on clothing and avoid breathing spray. During mixing, loading, application, and clean-up and repair activities, workers must wear long sleeved shirt, long pants, chemical resistant gloves and goggles or a face shield. Change clothing after use. Wash with soap and water after use. Avoid application when weather conditions favour drift from treated areas. Do not eat, drink or smoke while mixing or during application. Keep out of bodies of water. Do not use or store near an open flame.

Do not apply in such a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area being treated during application.

With the exception of sod production, do not re-enter treated turf areas (including golf course fairways, tees, greens and nearby approaches) until treated surfaces are dry. For sod farms, do not re-enter treated areas for 12 hours.

Do not enter or allow worker entry for 24 hours following application to ornamentals and conifers. Outdoor nursery conifers are not to be transplanted by hand for 12 days following application and greenhouse nursery conifers are not to be transplanted by hand for 25 days following application.

Workers shall be given oral warning of the re-entry interval. If early re-entry into treated areas is required, workers must wear long pants, a long-sleeved shirt, chemical resistant gloves and boots, and a hat.

## **ENVIRONMENTAL PRECAUTIONS**

Avoid application when weather conditions favour drift from the treated areas.

This product is moderately toxic to wild mammals, which may consume food which contains residues of Metalaxyl-M and S-isomer.

Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

### **Environmental Hazards:**

The use of this product may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sandy soil) or the water table is shallow. 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 (e.g. compacted or fine-textured soils such as clay). In order to minimize risk to the environment from the use of this product, do not use on coarse textured gravelly soils, soils with less than 2% organic matter, or in areas where the water table may be high.

Avoid application of this product when heavy rain is forecast.

TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

**DO NOT APPLY BY AIR.**

## DISPOSAL AND DECOMTAMINATION

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.

### CONTAINER DISPOSAL:

#### For recyclable containers:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,  
CALL 1-800-327-8633 (FASTMED)***

## GENERAL INFORMATION

SUBDUE MAXX Fungicide is a systemic fungicide for use on ornamentals grown in nurseries, conifers grown in nurseries, golf course turf and turf for golf course and sod production. SUBDUE MAXX Fungicide is readily absorbed through the roots of plants providing protection against attack from diseases caused by *Pythium* and *Phytophthora* by working from inside the plants under all weather conditions.

SUBDUE MAXX must be applied preventatively, before disease symptoms are evident, to be effective.

### Rotational Crops

Do not plant any crop which is not registered for use with Metalaxyl-M and S-isomer in Metalaxyl-M and S-isomer treated soil for a period of 12 months.

## USE LIMITATIONS

Experience has shown that strains of fungus resistant to Metalaxyl-M and S-isomer may develop. Failure to control the disease will result in crop damage and/or yield losses. Since the occurrence of resistance cannot be foreseen, Syngenta accepts no responsibility for any loss of or damage to, crops resulting from the failure of SUBDUE MAXX Fungicide to control the resistant fungus strains. If high levels of disease appear, consult the government specialist immediately. Do not use SUBDUE MAXX Fungicide for control of downy mildew diseases on the crops listed on this label. Use only as a soil application except for disease control in turf.

## 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) medium classification. Boom height must be 60 cm or less above the crop or ground.

### Buffer zones:

Use of the following spray methods or equipment DOES NOT require a buffer zone: hand-held or backpack sprayer, spot treatment, inter-row hooded sprayer, soil drench and soil incorporation. The buffer zones specified in the table below for metalaxyl are required between the point of direct application and the closest downwind edge of sensitive freshwater and terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Methods of application	Crop	Buffer Zones (metres) Required for the Protection of:	
		Freshwater Habitat of Depths:	Terrestrial habitat
		Less than 1 m	
Field sprayer <sup>1</sup>	Turf	1	1

<sup>1</sup>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 coneshaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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.

Avoid spray overlap, or crop injury may result.

### Mixing Instructions

#### SUBDUE MAXX Fungicide Only

Fill the spray tank 1/2 - 3/4 full with water, add the proper amount of SUBDUE MAXX Fungicide. Then add the rest of the water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

For banded applications, calculate the amount of SUBDUE MAXX Fungicide needed as follows:

$$\frac{\text{band width in cm}}{\text{row width in cm}} \times \text{broadcast rate per hectare} = \text{amount needed per hectare}$$

### Tank Mixtures - Pesticides:

SUBDUE MAXX Fungicide can be tank mixed with PRIMO MAXX<sup>®</sup> Turf Growth Regulator. Read the PRIMO MAXX label and follow the precautionary statement and directions for use.

1. Always check the compatibility of PRIMO MAXX tank mix using a jar test with proportionate amounts of SUBDUE MAXX Fungicide and the water before mixing in the spray tank.
2. Provide sufficient jet or mechanical agitation during filling and application to keep the tank mix uniformly suspended.
3. Fill tank at least 1/2 full of clean water.
4. Add SUBDUE MAXX Fungicide first then PRIMO MAXX next.
5. Do not leave tank mix combinations in the spray tank for prolonged periods without agitation. Mix and apply them the same day.

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.

## ORNAMENTALS

Use SUBDUE MAXX Fungicide on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, for control of damping-off, and root and stem rot diseases caused by *Pythium* and *Phytophthora*. SUBDUE MAXX Fungicide may be applied as a soil drench or incorporated into a soil mix for subsequent seeding or transplanting of ornamentals. Ensure that the growing media of container-grown plants is moist prior to a drench application of SUBDUE MAXX Fungicide. If soil surface applications are made indoors, irrigate within 1-2 days to ensure product reaches the root zone. If soil surface applications are made to plants grown in an outdoor nursery or landscape, irrigate with at least 1.5 cm of water if rainfall does not occur within 7 days.

<b>Foliage Plants</b> Aglaonema, Aphelandra, Dieffenbachia, Peperomia, Philodendron Pothos, Schefflera, Sedum, Sempervivum, Zygocactus	<b>SOIL MIX:</b> Thoroughly mix 5 mL of SUBDUE MAXX Fungicide with each m <sup>3</sup> of soil mixture.
<b>Bedding Plants</b> Ageratum, Algerian ivy, Artemisia, Aster, Begonia, Caladium, Carnation, Chrysanthemum, Coleus, English Ivy, Daisy (Shasta), Foxglove, Gaillardia, Geranium, Impatiens, Marigold, Pansy, Petunia, Phlox, Pinks, Primrose, Prostrate Rosemary, Salvia, Snapdragon, Verbena, Vinca, Zinnia	<b>SOIL MIX at Seeding and at Transplanting:</b> Thoroughly mix 5 mL with each m <sup>3</sup> of soil mixture.
	<b>DRENCH at Seeding and Transplanting:</b> Mix 24 mL with 1000 L of water and apply 5 L of solution per m <sup>2</sup> .
<b>Flowers</b> Gloxinia	<b>DRENCH at Transplanting:</b> Mix 40 mL with 1000 L of water and apply 5 L of solution per m <sup>2</sup> . May cause phytotoxicity.

## CONIFERS IN NURSERIES

SUBDUE MAXX Fungicide provides control of *Phytophthora* root rot of conifers. Outdoor nursery conifers are not to be transplanted by hand for 12 days following application and greenhouse nursery conifers are not to be transplanted by hand for 25 days following application.

<b>Conifers in Nurseries</b>	
Seedbeds and Plug-Plantings 2-0 Bare Root Transplants	Apply 1.2 L SUBDUE MAXX Fungicide in at least 200 L of water per hectare in the spring.  For small areas mix 12 mL product/100 L water and apply 100 L solution/100 m <sup>2</sup> .

If soil surface applications are made indoors, irrigate within 1-2 days to ensure product reaches the root zone. If soil surface applications are made to plants grown in an outdoor nursery irrigate with at least 1.5 cm of water if rainfall does not occur within 7 days.

### **TURF ON GOLF COURSE: greens, tee off and nearby approaches**

SUBDUE MAXX Fungicide provides control of *Pythium* blight and *Pythium* damping-off in golf course turf. Within the rate shown below for turf, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and shortest interval specified. DO NOT make more than 3 applications of SUBDUE MAXX Fungicide per season.

<b>Established Turf</b> <i>Pythium</i> Blight	Apply as a preventative treatment at a rate of 16 to 32 mL SUBDUE MAXX Fungicide in 10 to 20 L of water per 100 square metres. Re-treat at 10 - 21 day intervals if required. During periods of prolonged conditions favourable for disease development use 16 to 32 mL on a 7-14-day schedule.
<b>Newly Seeded Areas</b> <i>Pythium</i> Damping-Off <i>Pythium</i> Blight	Apply 16 to 32 mL SUBDUE MAXX Fungicide in 20 - 40 L of water per 100 square metres immediately after seeding. Irrigate with 1-2 cm of water. Re-treat at 7 - 14 day intervals if conditions remain favourable for disease.  Note: For long-term control of <i>Pythium</i> when using seed treated with the active ingredient contained in SUBDUE MAXX Fungicide, make an application of SUBDUE MAXX Fungicide 7-10 days after seeding.

NOTES: (1) For *Pythium* control apply another registered fungicide which does not contain Metalaxyl-M and S-isomer at least once per season.

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

The DIRECTIONS FOR USE for this product for the use(s) described below were developed by persons other than Syngenta Canada Inc. and accepted for registration by Health Canada under the URMULE program. Syngenta Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop(s) listed on below.

Accordingly, the User assumes all liability arising, and agree to hold Syngenta Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use(s) described below.

### **TURF FOR GOLF COURSE AND SOD PRODUCTION - FOR CONTROL OF *PYTHIUM* ROOT ROT**

SUBDUE MAXX Fungicide provides control of *Pythium* root rot on turf for golf course and sod production. Not for use on other institutional and commercial lawns, sports fields, parks, municipal grounds and cemeteries.

<b>Site</b>	<b>Pest</b>	<b>Application rates/Comments</b>
Golf course (greens, tee off and nearby approaches) and Sod production	<i>Pythium</i> root rot	Apply as a drench at a rate of 1.6 – 3.2 L/ha in 1000 – 2000 L water/ha as a drench.  Apply when disease symptoms first occur.  Do not make more than one application per season.

### **GREENHOUSE, CONTAINER AND FIELD GROWN WOODY ORNAMENTAL PLANTS (INCLUDING CONIFERS) IN NURSERIES AND LANDSCAPES - FOR SUPPRESSION OF *PHYTOPHTHORA RAMORUM***

SUBDUE MAXX Fungicide provides suppression of *Phytophthora ramorum* on woody ornamentals grown in the greenhouse, containers, field grown and in nurseries and landscape plantings as well as conifers grown in nurseries and plantations.

<b>Site</b>	<b>Pest</b>	<b>Application rates/Comments</b>
Woody Ornamentals (greenhouse, container, field grown, nurseries, landscape plantings) Apply only to susceptible woody ornamental species indicated on the CFIA website shown on the front panel.	<i>Phytophthora ramorum</i> - Sudden oak death	<p><b>Field grown stock and landscapes</b> Foliar application: Mix 7.8-15.6 mL of product in 100 L of water and spray to runoff.</p> <p><b>For indoor and outdoor container grown ornamentals</b> <u>Drench at seedling:</u> Mix 24 mL with 1000 L of water and apply 5 L of solution per m<sup>2</sup>. <u>Drench at transplanting:</u> Mix 40 mL with 1000 L of water and apply 5 L of solution per m<sup>2</sup>. May cause phytotoxicity.</p> <p>Do not make more than 3 applications per season.</p> <p>Repeat if necessary at 2-3 month intervals.</p> <p>Apply SUBDUE MAXX prior to infection by <i>Phytophthora ramorum</i>. Preventive applications have been shown to be more efficacious than post-infection applications with <i>Phytophthora ramorum</i>.</p> <p>Use in a rotational program with other products labelled for <i>Phytophthora</i> control in ornamental plants as a strategy for resistance management.</p> <p>SUBDUE MAXX has been tested on a large number of woody ornamental plants, however, not all species have been tested for phytotoxicity. It is recommended that the user test a small sample before applying to the entire crop.</p>



Fungicide may be applied as a soil drench or incorporated into a soil mix for subsequent seeding or transplanting of ornamentals. Ensure that the growing media of container plants is moist prior to a drench application of SUBDUE MAXX Fungicide. If soil surface applications are made to plants grown in an outdoor nursery or landscape, irrigate with at least 1.5 cm if water if rainfall does not occur within 7 days.

Outdoor nursery conifers are not to be transplanted by hand for 12 days following application and greenhouse nursery conifers are not to be transplanted by hand for 25 days following application.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, please note that SUBDUE MAXX Fungicide contains a Group 4 fungicide. Any fungal population may contain individuals naturally resistant to Metalaxyl-M and S-isomer and other Group 4 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

### **To delay fungicide resistance:**

Where possible, rotate the use of SUBDUE MAXX Fungicide or other Group 4 fungicides with different groups that control the same pathogens.

Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

Monitor treated fungal populations for resistance development.

If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.

For further information or to report suspected resistance, contact company representatives at 1-877-SYNGENTA (1-877-964-3682) or at [www.syngenta.ca](http://www.syngenta.ca).

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