Subdue® GR

GRANULAR FUNGICIDE

For the control of certain diseases in ornamentals, turf, nonbearing citrus, conifers, and non-bearing deciduous fruit and nut trees in nurseries

Active Ingredients:
(R)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester 0.97%
Related Compounds 0.03%

Other Ingredients:	*99.00%*
Total:	*100.00%*

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use on back of bag.

EPA Reg. No. 100-794

EPA Est. 5905-GA-01

NCP 794B-M2B 1199

Product ID. 53181

25 POUNDS
NET WEIGHT

NOVARTIS

NCP 130-794B-M2B

Subdue® GR

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire **Directions for Use** and the **Conditions of Sale and Warranty** before using this product. If terms are not acceptable, return the unopened product container at once.

CONDITIONS OF SALE AND WARRANTY

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Novartis Crop Protection, Inc. or the Seller. All such risks shall be assumed by the Buyer.

Novartis warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions for Use** subject to the inherent risks referred to above. **Novartis makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Novartis or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product.** Novartis and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing **Conditions of Sale and Warranty**, which may be varied only by agreement in writing signed by a duly authorized representative of Novartis.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter treated areas without footwear until dust has settled. There is no restricted-entry interval (REI) requirement.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without protective clothing until dust has settled.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR DISEASE CONTROL OR CROP INJURY.

GENERAL INFORMATION

Subdue GR is a systemic fungicide for use in ornamentals; turf; nonbearing citrus grown in nurseries and as landscape plantings; conifers grown in nurseries and plantations, including Christmas trees; and nonbearing deciduous fruit and nut trees in nurseries.

Notes: (1) Subdue GR is a systemic fungicide having a specific mode of action. Use of Subdue GR could result in development of insensitive strains of fungi. Development of insensitivity cannot be predicted. Therefore, Novartis cannot assume liability for crop damage resulting from insensitive strains of fungi. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible Subdue GR insensitive strains of fungi which may occur. (2) To help decrease the chance of downy mildew insensitivity, do not use Subdue GR for control of downy mildew diseases, except for use in turf. Use Subdue GR only as a soil application for control of soil-borne diseases.

Calibration Instructions

It is important to calibrate the granule applicator before use. Even after calibration, it is best to check the actual application rate under your operating conditions. Application rates can vary due to changing moisture conditions, equipment wear, normal variation in product bulk density, and particle size distribution.

Generally, calibrating a granule applicator can be done by following these simple steps:

1. Mark off a known area, usually 1,000 sq. ft.
2. At normal walking speed, simulate an application over the 1,000 sq. ft. area and record the time taken to accomplish this.
3. Fill the applicator hopper with product. Set the applicator meter at a random setting.
4. Operate the applicator for the amount of time obtained in step 2 and collect the output of granules in a plastic bag, catch pans, or other collection device.
5. Weigh the granules collected in ounces and compare this weight with the required application rate in ounces per 1,000 sq. ft. from the product label. Repeat steps 1-4 until the correct meter setting is found that will deliver the required application rate.

Application Instructions

For banded applications, calculate the amount of Subdue GR needed as follows:

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

ORNAMENTALS

For control of damping-off, and root and stem rot diseases caused by Pythium and Phytophthora, use Subdue GR on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, and for professional use on ornamentals grown for indoor and outdoor landscaping. Use this product either as a soil surface application or soil mix on ornamentals at the time of seeding and transplanting. **Within a rate range given for a specific group of ornamentals, 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 the shortest interval.**

When applying Subdue GR to the soil surface, irrigate with enough water to completely wet the root zone after application. Do not exceed recommended rates or apply more frequently than directed, or plant injury may occur.

Notice to User: Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for tolerance to Subdue GR. Neither the manufacturer nor the seller has determined whether or not Subdue GR can be used safely on ornamentals and nursery plants not specified on this label. The professional user should determine if Subdue GR can be used safely prior to commercial use. In a small area, test the recommended rates for a particular group of unlabeled plants, i.e., foliage plants, bedding plants, etc., for plant tolerance prior to widespread use.

When applying Subdue GR as a soil mix, components in the soil mix should be dry and free of lumps to ensure thorough mixing of the granules throughout the media. When making subsequent applications at the designated intervals, other registered Subdue formulations may be used. Refer to the respective product label for rates, precautions, and limitations relative to its use.

Foliage Plants Aglaonema, Aphelandra, Dieffenbachia, Peperomia, Philodendron*, Pothos, Schefflera, Sedum, Sempervivum, Zygocactus	**SOIL SURFACE APPLICATION:** Distribute 8-40 oz. uniformly over 1,000 sq. ft. of bed or bench area. Irrigate with enough water to thoroughly wet the root zone after application. Repeat applications at 2 to 3-month intervals, if necessary. *On Philodendron, use 12-60 oz./1,000 sq. ft. *Precaution: To minimize the potential for injury to Pothos, do not use more than 22 oz. and do not apply more frequently than once every 3 months.* **SOIL MIX:** Thoroughly mix 1.6-8 oz./cu. yd. of soil or soil mix. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. After a 2 to 3-month interval, Subdue GR may be reapplied as a soil surface application.
Bedding Plants Ageratum, Algerian Ivy, Artemisia, Aster, Begonia, Caladium, Carnation, Chrysanthemum, Coleus, Daisy, English Ivy, Foxglove, Gaillardia, Geranium, Impatiens, Marigold, Pansy, Petunia, Phlox, Pinks, Primrose, Prostrate Rosemary, Salvia, Snapdragon, Verbena, Vinca, Zinnia	**SOIL SURFACE APPLICATION: At Transplanting (Soil 2-3 inches deep):** Uniformly apply 6-30 oz. to 1,000 sq. ft. of bed area. Irrigate with enough water to thoroughly wet soil after application. Repeat applications at 1 to 2-month intervals, if necessary. Do not apply rates of 22 oz. more than once every 6 weeks. **SOIL MIX: At Seeding and at Transplanting:** Thoroughly mix 1.6-8 oz./cu. yd. of soil or soil mix. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. Subdue GR may be reapplied after 6-8 weeks as a soil surface application.

Flowers African violet, Anthurium, Baby's breath, Carnation, Chrysanthemum, Columbine, Delphinium, Easter lily, Geranium, Gloxinia, Poinsettia, Rose	**SOIL SURFACE APPLICATION:** Uniformly apply 12-60 oz./1,000 sq. ft. Repeat application at 1 to 2-month intervals, if necessary. Irrigate with enough water to thoroughly wet soil after application. Do not apply rates of 37 oz. more often than every 6 weeks. *Precaution: Do not apply more than 30 oz. to Easter lilies and only make one at-planting application.* **SOIL MIX:** Thoroughly add 1.6-8 oz./cu. yd. of soil or soil mix. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. Subdue GR may be reapplied after 6-8 weeks as a soil surface application. *Precaution: Do not use a soil mix application in Easter lilies.*
Azaleas	**SOIL SURFACE APPLICATION:** Phytophthora root and crown rot – Uniformly apply 14.8-75 oz./1,000 sq. ft. of bed area. Irrigate with enough water to thoroughly wet the soil after application. Repeat applications at 2 to 4-month intervals, if necessary. **SOIL MIX:** Thoroughly mix 1.6-10 oz./cu. yd. of soil or soil mix. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. After a 2 to 4-month interval, Subdue GR may be reapplied as a soil surface application. *Precautions: (1) To minimize the potential for injury to azaleas, do not apply repeat applications at rates greater than 75 oz. closer than every 3 months, and do not exceed a total of 125 oz. in six months. (2) Use the lower rate for "Coral Bell" variety.*
Woody Ornamentals Other Than Azaleas *Aucuba japonica*, Arborvitae, Boxwood, Ceanothus, Cotoneaster, Dogwood, Ficus, "Halls" Honeysuckle, Ilex, *Juniperus* spp., Photinia, *Pieris japonica, Pinus* spp., Pittosporum, Rhododendron, White cedar, White pine, Yew	**SOIL SURFACE APPLICATION:** Uniformly apply 26-125 oz./1,000 sq. ft. Irrigate with enough water to thoroughly wet the soil after application. Repeat applications at 2 to 3-month intervals, if necessary. Do not apply rates greater than 100 oz. more often than once every 10 weeks. **SOIL MIX:** Thoroughly mix 1.6-12.5 oz./cu. yd. of soil or soil mix. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. After a 2 to 3-month interval, Subdue GR may be reapplied as a soil surface application.

CITRUS IN NURSERIES (NONBEARING)

Use Subdue GR on nonbearing citrus for control of citrus foot rot, root rot, and trunk canker caused by *Phytophthora* spp. Apply to the soil as a broadcast application under the canopy of the trees. If rain is not expected within 3 days of application, water in with 1/2 inch of irrigation. For banded applications, use the formula below for calculating the amount of Subdue GR needed per acre of trees.

Make the first application of Subdue GR at the time of planting and make 2 additional applications at 3-month intervals throughout the growing season. Apply 200 lbs./A as a broadcast or banded application to the seedbeds, liners, or bedded stock. For banded applications, use a band wide enough to cover the root systems of the plants. Calculate the amount of Subdue GR needed for a banded treatment by using the formula in the **General Information** section of the label. Follow the application with 1/2 inch of irrigation if rainfall is not expected within 3 days.

Note: Do not use in greenhouse citrus nursery stock intended for commercial fruit production.

CONIFERS IN NURSERIES AND PLANTATIONS (INCLUDING CHRISTMAS TREES)

Subdue GR provides control of Phytophthora root rot of conifers.

Seedbeds and Plug-Plantings	Uniformly apply 6-30 lbs./A (2.2-11 oz./1,000 sq. ft.) in the spring and again in the fall.
2-0 Transplants	Uniformly apply 12-60 lbs./A (4.4-22 oz./1,000 sq. ft.) in the spring and again in the fall.

Conifers in Plantations

Use of Subdue GR will aid in the control of Phytophthora root rot when used in conjunction with good cultural practices. The use of Subdue GR will not overcome poor management practices such as planting on sites that are prone to flooding or are poorly drained. Subdue GR fungicide will not revitalize trees showing moderate to severe disease symptoms.

Apply 50-250 lbs. of Subdue GR per acre (1.25-5.75 lbs./1,000 sq. ft.). Applications should be made in early spring before growth starts and in the fall before the ground freezes. Calculate the amount of Subdue GR needed for a banded treatment by using the formula in the **General Information** section of the label.

Follow the application with 1/2-1 inch of irrigation after application if rain is not expected within 3 days.

DECIDUOUS FRUIT AND NUT TREES IN NURSERIES (NONBEARING)

Subdue GR provides control of Pythium root rot and Phytophthora root, crown, and collar rot of nonbearing deciduous fruit and nut trees.

Make the first application of Subdue GR at the time of planting. Additional applications should be made at 3-month intervals throughout the growing season.

Apply 200-400 lbs. per treated acre (4.75-9.25 lbs./1,000 sq. ft.) uniformly under the canopy of the trees. Treat sufficient surface area in nurseries to cover the root zone of the trees. Use the high rate in areas known to be infested with Phytophthora.

Follow the application with 1/2-1 inch of irrigation after application if rain is not expected within 3 days.

Note: Do not apply to trees that will bear harvestable fruit within 12 months of application, or illegal residues may result.

TURF

Subdue GR controls Pythium blight and Pythium damping-off in turf, yellow tuft (downy mildew) in bluegrass, and downy mildew in St. Augustinegrass. **Within the rate range given 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.**

Established Turf Pythium Blight, Yellow Tuft, Downy Mildew	Uniformly apply as a preventive treatment at 5-25 oz./1,000 sq. ft. Re-treat at 10 to 14-day intervals during periods favorable for disease development. **Irrigate with 1/4-1/2 inch of water after application.**
Newly Seeded Areas Pythium Damping-off, Pythium Blight, Yellow Tuft, Downy Mildew	Uniformly apply 5-25 oz./1,000 sq. ft. immediately after seeding. **Irrigate with 1/4-1/2 inch of water.** Re-treat at 7 to 14-day intervals if conditions remain favorable for disease.

Precautions: To minimize the potential for insensitivity, (1) Make no more than 3 applications per season of any product in which the Subdue active ingredient is applied alone, and (2) Apply an alternate EPA-registered fungicide for Pythium control at least once during the season.

Rotational Crops

Do not plant any food crop which is not registered for use with the Subdue active ingredient in soil treated with this active ingredient for a period of 12 months.

STORAGE AND DISPOSAL

Pesticide Storage and Disposal

Store in a dry place. Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide is a violation of federal law. Pesticide that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

Container Disposal

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes eye irritation. Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention if irritation persists.

If inhaled: Move to fresh air.

If on skin: Wash with plenty of soap and water. Get medical attention.

Note to Physician: If ingested, induce emesis or lavage stomach. Treat symptomatically.

Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water.

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NCP 794B-M2B 1199