

# United States Environmental Protection Agency WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

MAR 1 3 2013

Eduardo Moreira Senior Regulatory Product Manager Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, NC 27419-8300

Subject:

Revised label

Product Name:

Subdue® GR

EPA Reg. No.:

100-794

Your submission:

Amendment dated March 12, 2013

OPP Decision Number: 475163

Dear Mr. Moreira:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable.

One copy of the label stamped "Accepted" is enclosed for your records. Please submit one copy of the final printed label before the product is released for shipment.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at westin.robert@epa.gov.

Sincerely.

Hope Johnson

Acting Product Manager (21)

Fungicide Branch

Registration Division (7504P)

Enclosure

## Subdue® GR

# Granular Fungicide

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

Active Ingredient:

Mefenoxam*		1.0%
Other Ingredients:	·	99.0%
Total:		100.0%

\*CAS Nos. 70630-17-0 and 69516-34-3

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. No. 67572-GA-1

Product of Switzerland Formulated in the USA

Product ID 53181

SCP 794B-L2H 0909

25 pounds Net Weight



MAR 13 2013'

Under the Federal Insecticide. Fungicide. and Redenticide Ast. as amended, for the posticide

	FIRST AID	
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
lf on skin	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
Have the product container or label with you when calling a poison control center or		
doctor, or going for treatment.		
HOT LINE NUMBER		
For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),  Call		
1-800-888-8372		

## PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

# **CAUTION**

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

# Personal Protective Equipment (PPE)

## Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- · Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into 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.

## **Groundwater Advisory Statement**

Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.



#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE)

RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

# 6/17

#### **DIRECTIONS FOR USE**

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

Subdue GR must be used only in accordance with the directions on this label or on EPA approved supplemental labeling.

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

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, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE); notification to workers, 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 or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours. Exception: If the product is soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plant, soil, or water is:

- Coveralls
- Chemical–resistant gloves made of any waterproof material
- Shoes plus socks

#### 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 or allow others to enter treated areas without protective clothing until dust has settled.

#### PRODUCT 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.

Resistance Management Recommendations: 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. 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.

The active ingredient in Subdue GR is mefenoxam, a Group 4 fungicide (phenylamide). Some disease pathogens are known to have developed resistance to fungicides used repeatedly for their control. To prevent the development of insensitive strains of fungi to mefenoxam/metalaxyl, apply Subdue GR in an alternation program with fungicides that are not in Group 4 and to which pathogen resistance has not developed. Do not make more than two sequential applications of Subdue GR before alternating with a non-Group 4 fungicide for soil-borne diseases. When Subdue GR is applied to control foliar diseases, alternate every other application with a non-Group 4 fungicide.

Maximum usage when applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum seasonal total for the active ingredient as stated on the label of the product containing the lowest seasonal total on that crop.

#### **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. feet.
- 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:

band width in inches row width in inches

X br

broadcast rate

amount needed

per acre per acre

#### **ORNAMENTALS**

Subdue GR is a systemic fungicide that controls diseases caused by downy mildew fungi and damping-off, root and stem diseases caused by Pythium and Phytophthora's spp. Apply Subdue GR to ornamentals grown in greenhouses, lath and shade-houses, outdoor field and container nurseries (including non-bearing fruit and nut trees), conferent plantations, interiorscapes and in commercial and residential landscapes. Apply Subdue GR as a soil surface application or as a pre-potting growing media.

Soil and Growing Media Surface Application: When applying Subdue GR to the soil, surface, irrigate with enough water to completely wet the root zone after application.

not exceed specified rates or apply more frequently than directed, or plant injury may occur.

Growing Media Incorporation Treatment: When incorporating Subdue GR into growing media, the mix should be dry and free of lumps to ensure thorough mixing of the granules throughout the media. When making subsequent applications at designated intervals, other registered Subdue formulations may be applied. Refer to the respective product label for rates, precautions, and limitations relative to its use.

Rate Selection: Within a rate range given for a specific group of ornamentals, use lower rates for young plants with shorter crop production times and higher rates for plants with longer crop production times. Under severe disease conditions, use the highest rate and the shortest reapplication interval.

**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 specified rates for a particular group of unlabeled plants, i.e., foliage plants, bedding plants, etc., for plant tolerance prior to widespread use.



# **Foliage Plants**

Aglaonema
Aphelandra
Dieffenbachia
Peperomia
Philodendron\*
Pothos
Schefflera
Sedum
Sempervivum
Zygocactus

Soil or Growing Media Surface

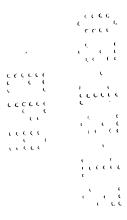
Application: Distribute 8-40 oz. uniformly over 1,000 sq. ft. of bed or bench area. Irrigate with enough water to thoroughly wet the root zone after application. Repeat applications at 2 to 3-month intervals, if necessary.

\*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./1,000 sq. ft. and do not apply more frequently than once every 3 months.

# **Growing Media Incorporation**

Treatment: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-8 oz./cu. yd. in growing media. 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 or Growing Media Surface Application:

Uniformly apply 6-30 oz. to 1,000 sq. ft. of bed area. For control of downy mildew use 30 oz./1,000 sq. ft. 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./1,000 sq. ft. more than once every 6 weeks.

# **Growing Media Incorporation**

**Treatment:** Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-8 oz./cu. yd. in growing media. 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 or Growing Media 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

Precaution: Do not apply more than 30 oz./1,000 sq. ft. to Easter lilies and only make one at-planting application.

oz. more often than every 6 weeks.

**Growing Media Incorporation** 

Treatment: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly add 1.6-8 oz./cu. yd. in growing media. 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 pre-potting growing media mix application in Easter lilies.



#### **Azaleas**

# Soil or Growing Media Surface Application:

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.

#### **Growing Media Incorporation**

**Treatment:** Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-10 oz./cu. yd. in growing media. 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./1,000 sq. ft. at application intervals less than every 3 months, and do not exceed a total of 125 oz./1,000 sq. ft. 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

llex

Juniperus spp.

Photinia

Pieris japonica

Pinus spp.

Pittosporum

Rhododendron

White cedar

White pine

Yew

Soil and Growing Media 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./1,000 sq. ft. more frequently than every 10 weeks.

#### **Growing Media Incorporation**

Treatment: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-12.5 oz./cu. yd. in growing media. 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 surface as a broadcast application under the canopy of the trees. For best efficacy, ½ inch of irrigation or rainfall is required within 24 hours after application. For banded applications, use the formula in the Product Information Section of the label to calculate 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 soil surface application broadcast or banded to the seedbeds, liners, or bedded stockers 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 **Product Information** section of the label.

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. For best efficacy, ½ inch of irrigation or rainfall is required within 24 hours after application.

Seedbeds and	Soil Surface Application: Uniformly apply 6-30 lbs./A
Plug-Plantings	(2.2-11 oz./1,000 sq. ft.) in the spring and again in the fall.
2-0 Transplants	Soil Surface Application: 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.

Soil Surface Application: Apply 50-250 lbs. of Subdue GR per acre (1.25-5.75 lbs./1,000 sq. ft.) to the soil surface. 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 **Product Information** section of the label.

# DECIDUOUS FRUITS AND NUTS IN NURSERIES (NONBEARING)

Subdue GR provides control of Pythium root rot and Phytophthora root, crown, and collar rot of nonbearing deciduous fruits and nuts.

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. For best efficacy, 1/2 inch of irrigation or rainfall is required within 24 hours after application.

Soil Surface Application: Apply 200-400 lbs. per treated acre (4.75-9.25 lbs./1,000 sq. ft.) uniformly to the soil surface 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.

**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, Pythium damping-off and yellow tuft (downy mildew) in turfgrasses. 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	Soil Surface Application: Uniformly apply as a preventative treatment at 12.5-25 oz./1,000 sq. ft.
Pythium Blight	Retreat at 10 to 14-day intervals during periods
Yellow Tuft	favorable for disease development.
Downy Mildew	
Newly Seeded Areas	Soil Surface Application: Uniformly apply 12.5-25 oz./1,000 sq. ft. immediately after seeding. <b>Irrigate</b>
Pythium Damping-Off	with 1/4-1/2 inch of water after application. Re-
Pythium Blight	treat at 7 to 14-day intervals if conditions remain
Yellow Tuft	favorable for disease.
Downy Mildew	

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

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment.

#### Storage

Store in a dry, secure place.

#### **Pesticide Disposal**

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 Handling**

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling or dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay 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.

Subdue®, the ALLIANCE FRAME, the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

©2010 Syngenta

For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, North Carolina 27419-8300

SCP 794B-L2H 0909

SUB GR 794 MAS 0909 AMEND-C 0213-CLEAN – sw – 3/12/13 000100-00794.20130204C.SUBDUE\_GR-AMEND-C-0213-CLEAN.PDF

