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United States Environmental Protection Agency

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

FEB 8 2004

Larry Zang Senior Regulatory Product Manager Sygenta Crop Protection, Inc. P.O. Box 18300 Greensboro, NC 27419-8300

Subject:

1.

EPA Reg. No. 100-794

Subdue® GR

Amendment dated September 2, 2003; label resubmission dated October 28, 2003

Dear Mr. Zang:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

Revise the Ingredients Statement as follows, eliminating the "related compounds":

Mefenoxam (CAS # 70630-17-0)	1.0%
Other Ingredients	<u>99.0%</u>
Mefenoxam (CAS # 70630-17-0) Other Ingredients Total 44	100.0%

AGRICULTURAL USE REQUIREMENTS: In the third paragraph, change the end of the sentence from "into the soil or off any foliage" to "into the soil and off any foliage."
page 11: Flowers/Pre-Potting Growing Media Mix. In the last paragraph in column 2

page 11: Plowers/Pre-Potting Growing Media Mix. In the last paragraph in column 2, change, "media mix mix application" to "media mix application."

4. **CITRUS IN NURSERIES (NONBEARING):** In the last line of the first paragraph, change "use the formula below for calculating...." to "use the formula in the General Information Section of the label to calculate...."

Note: A new CSF is required deleting the second CAS Number for mefenoxam.

One copy of the label stamped "Accepted with comments" is enclosed for your records. This label supercedes all labels previously accepted for this product. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

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EPA Reg. No. 100-794 Subdue® GR Page 2

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

Sincerely,

Mary L. Walles

Mary Waller Product Manager (21) Fungicide Branch Registration Division (7505C)

Enclosure

Bag

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	
(CAS No. 70630-17-0)	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. No.

Product of Switzerland

SCP 794

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pounds Net Weight

ACCEPTED with COMMENTS In EPA Letter Dated: FEB 6 2004

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FIRST AID Hold eye open and rinse slowly and gently with water for If in eyes . 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye Call a poison control center 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 mouth-to-mouth if possible Call a poison control center or doctor for further treatment • advice If on skin Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 • minutes Call a poison control center or doctor for treatment advice. • . 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:

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- 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, 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.

Groundwater Advisory Statement

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 should 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, Inc. or Seller. All such risks shall be assumed by Buyer and User, and 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. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. 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.

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DIRECTIONS FOR USE

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

Subdue GR should be used only in accordance with recommendations on this label or in separately published Syngenta supplemental labeling recommendations for this product.

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

The REI for soil surface applications is zero hours after sufficient rainfall occurs or overhead or hand held irrigation is used to thoroughly wash the product into the soil or off any foliage.

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 treated areas without protective clothing until dust has settled.

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STORAGE AND DISPOSAL

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Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited.

Pesticide Storage

Store in a dry place.

Pesticide Disposal

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 alternatives allowed by state and local authorities.

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.

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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, Syngenta 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.

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:

<u>band width in inches</u>	Х	broadcast rate	=	amount needed
row width in inches		per acre		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 pre-potting growing media 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 pre-potting growing media mix, components in the 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	SOIL SURFACE APPLICATION:
	Distribute 8-40 oz. uniformly over 1,000
Aglaonema	sq. ft. of bed or bench area. Irrigate with
Aphelandra	enough water to thoroughly wet the root
Dieffenbachia	zone after application. Repeat
Peperomia	applications at 2 to 3-month intervals, if
Philodendron*	necessary.
Pothos	
Schefflera	*On Philodendron, use 12-60 oz./1,000 sg.
Sedum	ft.
Sempervivum	
Zygocactus	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.
	Pre-Potting Growing Media Mix : 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. of pre-potting 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	SOIL SURFACE APPLICATION:
· · · · ·	At Transplanting (Soil 2-3 inches deep):

Ageratum	Uniformly apply 6-30 oz. to 1,000 sq. ft. of
Algerian Ivy	bed area. Irrigate with enough water to
Artemisia	thoroughly wet soil after application.
Aster	Repeat applications at 1 to 2-month
Begonia	intervals, if necessary. Do not apply rates
Caladium	of 22 oz. more than once every 6 weeks.
Carnation	
Chrysanthemum	Pre-Potting Growing Media Mix, At
Coleus	Seeding and at Transplanting: Apply to
Daisy	growing media mix just before planting.
English Ivy	Mix only enough for current use. Do not
Foxglove	store. Thoroughly mix 1.6-8 oz./cu. yd. of
Gaillardia	pre-potting growing media After
Geranium	transplanting, irrigate with sufficient water
Impatiens	to thoroughly wet the root zone. Subdue
Marigold	GR may be reapplied after 6-8 weeks as a
Pansy	soil surface application.
Petunia	1
Phlox	
Pinks	1
Primrose	
Prostrate Rosemary	1
Salvia	
Snapdragon	
Verbena	
Vinca	
Zinnia	

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Flowers	SOIL SURFACE APPLICATION:
	Uniformly apply 12-60 oz./1,000 sq. ft.
African violet	Repeat application at 1 to 2-month
Anthurium	intervals, if necessary. Irrigate with
Baby's breath	enough water to thoroughly wet soil after
Carnation	application. Do not apply rates of 37 oz.
Chrysanthemum	more often than every 6 weeks.
Columbine	
Delphinium	Precaution: Do not apply more than 30 oz.
Easter lily	to Easter lilies and only make one at-
Geranium	planting application.
Gloxinia	
Poinsettia	Pre-Potting Growing Media Mix: Apply
Rose	to growing media mix just before planting.
	Mix only enough for current use. Do not
	store. Thoroughly add 1.6-8 oz./cu. yd. of
	potting 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 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.
	Pre-Potting Growing Media MIx : 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. of
	pre-potting 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.

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, 	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	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.
Ficus "Halls" Honeysuckle Ilex Juniperus spp. Photinia Pieris japonica Pinus spp. Pittosporum Rhododendron White cedar White pine Yew	Pre-Potting Growing Media Mix : 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 of pre-potting 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 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 soil surface application broadcast or banded 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.

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

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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 Plug-Plantings	Soil Surface Application: 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	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 **General 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.

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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	Soil Surface Application: Uniformly apply as a preventative treatment at 12.5-25 oz./1,000 sq. ft. Re-treat at 10 to 14-day intervals during periods favorable for disease development.
Newly Seeded Areas Pythium Damping-Off Pythium Blight Yellow Tuft Downy Mildew	Soil Surface Application: Uniformly apply 12.5-25 oz./1,000 sq. ft. immediately after seeding. Irrigate with ¼-½ inch of water after application. 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.

Subdue® and the Syngenta logo are trademarks of a Syngenta Group Company

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

Product of Switzerland

Syngenta Crop Protection, Inc.

Greensboro, North Carolina 27409 www.syngenta-us.com

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