



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 13 2008

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dr. Norma C. Pangilinan
Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Subject: Amended Label for Clarity and Updates
Merit 1 G Greenhouse and Nursery Insecticide
EPA Reg. 432-1329
Your Submission date, November 15, 2007

Dear Dr. Pangilinan:

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

1. Rewrite the Precautionary Statement to read as follows: Caution: Harmful if swallowed or absorbed through skin. Avoid Contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Keep children and pets off treated area until dry.
2. The Agency's chemical resistant glove statement must replace "waterproof glove" where ever it is used on this label. The Agency's glove statement is as follows:
Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton.
3. Also add to the PPE (Applicators and other handlers must wear "Protective eye wear".
4. On page 2 of the label remove the word "General" from the title General Information or rename the section to a more acceptable term. As it now is named the Agency finds it to be too vague.
5. Change the word "should" to the word "must" on pages 4 and 5.

A stamped cop is enclosed for your records. Submit two (2) copies of your final printed labeling before you release the product for shipment. If there are questions call me at 703 305-5409.

Sincerely,



Dani Daniel
Insecticide -Rodenticide Branch
Registration Division 7505P

3/8

Merit[®] 1 G Greenhouse and Nursery Insecticide

For systemic insect control on ornamentals, fruit and nut trees, and vegetable plants in greenhouses, nurseries and interior plantscapes.

ACTIVE INGREDIENT:

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine 1.0%

OTHER INGREDIENTS: 99.0%

100.0%

EPA Reg. No. 432-1329

EPA Est. No. _____

STOP - Read the label before use.

Keep out of reach of children.

CAUTION

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-800-331-2867

FIRST AID

If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 to 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 swallowed	<ul style="list-style-type: none">• Call a poison control center 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 center or doctor.• Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.

In case of emergency call toll free the Bayer Environmental Science Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Note To Physician: No specific antidote is available. Treat the patient symptomatically.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Water-proof 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 controls statements:

- When handlers use closed systems, enclosed cabs, or aircraft 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.

ACCEPTED
with COMMENTS
In EPA Letter Dated:

FEB 13 2008

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

432-1329

User Safety Recommendations

User 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

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or 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 washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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 or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Exception: If the product is applied by drenching, 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 plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

STORAGE AND DISPOSAL

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

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.

Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If material is spilled for any reason or cause, carefully contain any spilled material to prevent non-target contamination. Do not walk through spilled material and dispose of as directed for pesticides above. Refer to Precautionary Statements on label for hazards associated with the handling of this material. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer Environmental Science Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Environmental Science Emergency Response Telephone No. is 1-800-334-7577, or contact Chemtrec at 1-800-424-9300.

GENERAL INFORMATION

MERIT 1 G Greenhouse and Nursery Insecticide is for systemic insect control on ornamentals, fruit and nut trees, and vegetable plants in greenhouses, nurseries and interior plantscapes. MERIT 1 G Greenhouse and Nursery Insecticide is a systemic product and will be translocated upward within the plant. To assure optimum effectiveness, the product must be placed by

incorporation where the roots of the plant can absorb the active ingredient. Irrigate moderately but thoroughly after application, allowing no leaching and runout from containers for at least three irrigations or 10 days whichever is longer.

Resistance: Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and recommended pest management practices for your area.

For resistance management purposes, a foliar application of any chloronicotinyl insecticide following a MERIT 1 G Greenhouse and Nursery Insecticide soil application in the same crop is not recommended.

Incorporation: Incorporation of MERIT 1 G Greenhouse and Nursery Insecticide can be achieved by cultivation, irrigation, rainfall, mechanical placement or by using mechanical soil or media mixing equipment.

Woody Perennials: Onset of protection is slower than in herbaceous species. A delay of 2 or more weeks should be expected. Longer delays may be expected with larger plants. Application should therefore be made in advance of expected insect activity.

Bark Media: Media with 30% or more bark content when treated with MERIT 1 G Greenhouse and Nursery Insecticide may confer a shorter period of protection.

APPLICATION TO GRASSY AREAS IN NURSERIES

MERIT 1 G Greenhouse and Nursery Insecticide can be used for the control of soil inhabiting pests of grassy areas of nurseries, such as northern and southern masked chafers, *Cyclocephala borealis*, *C. immaculata*, and/or *C. lurida*; Asiatic garden beetle, *Maladera castanea*; European chafer, *Rhizotrogus majalis*; green June beetle, *Cotinis nitida*; May or June beetle, *Phyllophaga* spp.; Japanese beetle, *Popillia japonica*; Oriental beetle, *Anomala orientalis*; *Euethola humilis rugiceps*; billbugs, *Sphenophorus* spp.; annual bluegrass weevil, *Listronotus maculicollis*; black turfgrass ataenius, *Ataenius spretulus*; *Aphodius* spp.; and mole crickets, *Scapteriscus* spp. MERIT 1 G Greenhouse and Nursery Insecticide can also be used for suppression of cutworms and chinchbugs. MERIT 1 G Greenhouse and Nursery Insecticide can be used as directed on nursery grass in sites such as under or around field or container grown plants, on roadways or other grassy areas in or around nurseries. MERIT 1 G Greenhouse and Nursery Insecticide cannot be used on commercial sod farms.

The active ingredient in MERIT 1 G Greenhouse and Nursery Insecticide has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Optimum control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Applications should not be made when grassy areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist. The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile. Application cannot exceed a total of 40 lbs. of product (0.4 lb. of active ingredient) per acre per year.

For systemic insect control on fruit and nut trees, and vegetable plants, greenhouse, interior plantscapes, and nursery ornamentals grown in flats, benches, beds and containers.

PEST	USE PATTERN	DOSAGE					REMARKS
		Container size (inches)	Bulk Application		Topical Application		
			Pots/cu. yd. of mix	Bulk Rate lbs/cu.yd.	Topical Rate level teaspoon	Grams/pot	
Adelgids	Herbaceous	2.0 to 3.0	4500 to 3200	7.0 to 3.5	1/8 to 1/4	0.5 to 1.0	Bulk Rate Application: Mix the required amount of MERIT 1 G Greenhouse and Nursery Insecticide per cubic yard of medium. Mix thoroughly before filling pots and transplanting. Topical Application: May be made at transplanting, repotting, or on established containerized plants. Irrigate moderately after application to move the active ingredient into the root zone. Do not allow significant leaching and runoff for at least 3 irrigations or 10 days, whichever is longer.
Aphids	Species-including vegetable plants ⁵	3.5 to 5.0	1600 to 1300	3.9 to 3.0	1/4 to 1/3	1.0 to 1.4	
Armored scale (suppression)		5.5 to 7.0	900 to 400	1.8 to 1.2	1/3 to 1/2	1.4 to 2.0	
Fungus gnats (larvae only) ¹	(one or two plants per pot)	8.0 to 10.0	200 to 160	1.0 to 0.8	1/2 to 2/3	2.0 to 2.7	
		11.0 to 12.0	80 to 60	0.8 to 0.5	2/3 to 1	2.7 to 4.1	
Japanese beetles (adults)	Herbaceous	2.0 to 3.0	4500 to 3200	9.0 to 7.0	1/4 of 1/3	1 to 1.3	
Lacebugs	Species including vegetable plants ⁵ (three or more plants per pot)	3.5 to 5.0	1600 to 1300	6.0 to 4.0	1/3 to 1/2	1.3 to 2.0	
Leaf beetles (including Elm and Viburnam leaf beetles)		5.5 to 7.0	900 to 400	2.5 to 2.0	1/2 to 2/3	2.0 to 2.7	
Leafhoppers (including glassy-winged sharpshooter)		8.0 to 10.0	200 to 160	1.5 to 1.0	2/3 to 1	2.7 to 4.1	
		11.0 to 12.0	80 to 60	1.0 to 0.8	to 1-1/2	4.1 to 6.1	
Leafminers	Woody Perennial Species						For optimum control, make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone.
Root Mealybugs ²	Containerized greenhouse and nursery ornamentals, vegetables and interiorscapes plants	1 Gallon	260 to 230	5.0 to 2.5	1-1/4 to 2-1/2	5 to 10	
Psyllids		2 Gallon	125 to 100	4.4 to 2.2	2-1/2 to 5.0	10 to 20	
Root Weevil Complex (such as Black Vine Weevil, Apopka Weevil, Citrus Root Weevil ³)		3 Gallon	70 to 60	3.3 to 1.7	3-2/3 to 7-1/3	15 to 30	
		5 Gallon	50 to 30	2.0 to 1.0	4-1/2 to 9.0	18.5 to 37	
Soft scale	Ornamental and vegetable plants ⁵	containerized plants grown in flats, on benches, or in beds	Apply 15 ounces per 1000 sq ft				Apply as a broadcast treatment and incorporate into the soil or media before planting. On established plants, irrigate moderately after application to move the active ingredient into the root zone. Minimize leaching and runoff for at least 3 irrigations or 10 days, whichever is longer.
Thrips (suppression) ⁴							
Whiteflies							
White Grub larvae (such as Japanese beetle, Chafers, European chafer, Oriental beetle, Asiatic garden beetle)			1 level tsp of MERIT 1 G = 4.1 grams 3 teaspoons =1 tablespoon				
¹ Fungus gnat larvae in the soil will be controlled by incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of MERIT 1 G from a healthy root system translocating the active ingredient up into the plant.							
² Root Mealybug control will require a thorough incorporation of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: per bulk application.							
³ Citrus Root Weevil: For use on non-bearing citrus nursery stock.							
⁴ Thrips suppression on foliage only. Thrips in buds and flowers will not be suppressed.							
⁵ Note: for use on vegetable plants intended for resale only including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.							

For use only on nursery ornamentals.			
PEST	USE PATTERN	DOSAGE	REMARKS
White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	Field and Forest Nurseries	Apply as a uniform band on either side of row using a band six (6) inches wider than the actual root ball diameter to be dug. Do not allow bands in adjacent rows to overlap. Use 45 oz. per 1000 ft. of row or 3000 sq. ft. For grub control in areas of turf, apply as a broadcast application using 45 oz. per 3000 sq. ft.	Vegetation in the area to be treated should be mowed to a height of 3 inches or less prior to application. Mowing to the lowest possible height will insure greater consistency of control. Apply May through July. For optimum control, treatment should be followed by rainfall or irrigation.

RESTRICTIONS

Do not graze treated areas or use clippings from treated areas for feed or forage.

Do not apply to soils which are water-logged, or saturated. This condition will not allow the penetration of water into the root zone of the plants.

Do not over-irrigate or allow excessive runoff to occur following an application of MERIT 1 G.

For outdoor ornamentals grown in beds or turf, applications of MERIT 1 G cannot exceed a total of 40 lb per acre per year.

On plants with a production cycle of less than one year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than one year, application may not exceed once a year.

Food Crops: Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.

For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12 month plant-back interval should be observed.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, because of manner of use and other factors beyond Bayer CropScience LP's control it is impossible for Bayer CropScience LP to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY liability whatsoever for special, incidental or consequential damages, resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

MERIT 1 G Greenhouse and Nursery Insecticide is specially formulated and sold by Bayer CropScience LP for the control of insects according to the directions on this label. The purchase price of MERIT 1 G Greenhouse and Nursery Insecticide includes a prepaid license under which purchaser agrees to employ the purchased quantity of MERIT 1 G Greenhouse and Nursery Insecticide only for the above-specified uses and to provide notice of the terms and conditions of this license to any subsequent purchaser. Uses of MERIT 1 G Greenhouse and Nursery Insecticide other than those specified on this label are not licensed through the purchase of this product.

PRODUCED FOR



Bayer Environmental Science

A Business Group of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

Merit 1 G (PENDING) 11/06/07