

34704-910

02/03/2006

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Biopesticides and Pollution Prevention
Division (7511C)

1200 Pennsylvania Avenue NW
Washington, DC 20460

EPA Reg. Number:

34704-910

Date of Issuance:

2/3/06

Term of Issuance:

Unconditional

Name of Pesticide Product:

VALIDATE™

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Loveland Products, Inc.

P.O. Box 1286

Greeley, CO 80632-1286

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA Sec. 3(c)(5) provided you:

1. Submit and /or cite all data required for registration/reregistration of your product under FIFRA Sec.3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA Sec.4.
2. Revise the EPA Registration Number to read, "EPA Reg. No. 34704-910.
3. Submit three(3) copies of the revised final printed label for the record.

Signature of Approving Official:

Janet L. Andersen, Director
Biopesticides and Pollution Prevention Division

Date:

2/5/06

EPA Form 8570.6

CONCURRENCES

SYMBOL	7511C	7511C	7				
SURNAME	Peterson	Reil					
DATE	1/23/06	1/27/06					

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ACCEPTED
FEB 3 2006
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, by the pesticide registered under EPA Reg. No. 34704-910

VALIDATE™

A Plant Growth Regulator That Produces Positive Plant Growth and Development

ACTIVE INGREDIENT:

Cytokinin, as Kinetin 0.5% w/w

OTHER INGREDIENTS:..... 99.5% w/w

TOTAL 100.0% w/w

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUTIONARY STATEMENTS ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters or rinsate.

PHYSICAL OR CHEMICAL HAZARDS

This product is not compatible with strong oxidizers.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: Long sleeved shirt and long pants and shoes plus socks. Follow the 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.

Net Contents: 2.5 Gal.

EPA Reg. No. 34704-

EPA Est. No.72639-CA-001



USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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.

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 applications. For any requirements specific to your State or Tribe, consult the State or Tribal 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 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 4 hours.

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
- Chemical resistant gloves Category A, such as butyl rubber \geq 14 mils, or natural rubber \geq 14 mils, or neoprene rubber \geq 14 mils or nitrile rubber \geq 14 mils
- 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 (WPS) 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 without appropriate protective clothing until sprays have dried.

GENERAL INFORMATION

Kinetin, the active ingredient in VALIDATE™, is a plant growth hormone occurring naturally in plants. VALIDATE™ is specially formulated to affect treated plants and turf to increase cell division, cell differentiation and cell growth. Use of this product will result in quicker green up, higher photosynthesis, and improved plant quality.

CHEMIGATION

Apply this product only through the following types of irrigation systems:

1. Sprinkler including center pivot, lateral move, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems.
2. Calibrated overhead watering booms
3. Do not apply this product through any other types of irrigation systems.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems), used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. A complete physical break (air gap) must occur between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitate the pesticide supply tank throughout the application of VALIDATE™. Except for turfgrass, apply VALIDATE™ at the end of the irrigation period in a sufficient amount of water to allow proper coverage of plant or crop. Fill the supply tank one-half full with water, add the appropriate amount of VALIDATE™ to the tank and finish filling the tank with water.

SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain function-interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a function pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitate the pesticide supply tank throughout the application of VALIDATE™. Except for turfgrass, apply VALIDATE™ at the end of the irrigation period in a sufficient amount of water to allow proper coverage of plant or crop but not to exceed 8 fluid ounces of VALIDATE™ per acre per application.

Fill the supply tank one-half full with water, add the appropriate amount of VALIDATE™ to the tank and finish filling the tank with water.

Use Rates When Applying VALIDATE™:

Use 2 fl. oz. per acre when spray volumes are 15 gallons or less.

When spray volumes are greater than 15 gallons per acre, then use 13 fl. oz. per 100 gallons.

Amounts of VALIDATE to use at various Spray Volumes:

20 Gallons Per Acre = 2.6 oz. Validate

40 Gallons Per Acre = 5.2 oz. Validate

50 Gallons Per Acre = 6.5 oz. Validate

100 Gallons Per Acre = 13 oz. Validate

300 Gallons Per Acre = 39 oz. Validate

APPLICATION DIRECTIONS

Crop	Application Timing	Remarks
Brassica Vegetables such as: Broccoli, Cauliflower, Cabbage & Mustard greens	-1 st application: At flowering stage. -2 nd application: 2 weeks after first application. -3 rd application: 7-10 days before harvest.	Foliar application: Apply thoroughly until dripping. Add a non-ionic surfactant for hard to wet crops such as Cabbage.
Leafy Vegetables such as: Celery, Head lettuce, Leaf lettuce and Spinach	-Make one application 2 weeks prior to harvest.	Thorough foliar spray coverage is essential.
Cucurbit Vegetables such as: Cucumber, Muskmelon, Cantaloupe, Summer squash, Watermelon and Honeydew	-Make 1 st application at early fruiting stage. -Make 2 more applications at 2-week intervals.	Enhances the number of flowers and fruit size.
Fruiting Vegetables such as: Tomato, Pepper and Eggplant	-Make 1 st application at early flowering stage. -Make 2 more applications at 2-week intervals.	To maximize yield, apply at 2 week intervals throughout the growing season.
Corn (Sweet, Field and Popcorn)	-Make one application, 6-8 days after full bloom.	Foliar application: Apply thoroughly until dripping.
Tuber Vegetables such as: Potato, Sweet potato, Yam	-1 st application: At tuber initiation stage. -2 nd application: 2-3 weeks after first application. -3 rd application: At early bloom stage	Foliar application: Apply thoroughly until dripping.
Root Vegetables such as: Carrot, Radish, Turnip, Ginseng, Horseradish, Parsley (turnip-rooted) and Sugar beet	-1 st application: At plant thinning stage. -2 nd application: 3 weeks after first application. -3 rd application: Apply 2 weeks prior to harvest.	Foliar application: Apply thoroughly until dripping.
Legume Vegetables	-1 st application: Apply at the 3-5 trifoliate leaf stage. -2 nd application: Apply at 5-10% each bloom. -3 rd application: Apply at each pod stage, if needed.	Apply thoroughly until dripping.
Citrus Fruits such as: Sweet orange, Lemon and Grapefruit	-1 st application: At small fruit stage when fruit size is approx. 6-8 mm. -2 nd application: 40 days prior to harvest. -3 rd application: 20 days prior to harvest	Apply thoroughly until dripping.

Pome/Stone Fruits such as: Apple, Apricot, Cherry, Plum, Plumcot and Peach	-1 st application: At small fruit stage when fruit size is approx. 6-8 mm. -2 nd application: 40 days prior to harvest. -3 rd application: 20 days before harvest. If spraying to improve color, second application is not required	Use as coloring agent: 13 fl. oz. product/100 gals water, spray 30 days before harvest. For growth retardation: Use 13 fl. oz. product/100 gals water when new growth is at 3 inches.
Tree Nuts (including Almonds)	-1 st application: 2 weeks prior to bloom -2 nd application: 2 weeks following petal fall -3 rd application: 30 days after last application -4 th application: 30 days after last application	Apply thoroughly until dripping.
Grape	-1 st application: 2 weeks before bud break -2 nd application: Small berry stage (4-6 mm in size). -3 rd application: 40 days prior to harvest. -4 th application: 20 days prior to harvest. If spraying to improve color, fourth application is not required.	Use as coloring agent: 13 fl. oz. product/100 gals water, spray 30 days prior to harvest
Strawberry	-1 st application at early flowering stage -2 nd application 2 weeks after 1 st application -Repeat applications every two weeks	Apply thoroughly until dripping.
Cotton	-1 st application: Apply when plants are in 3-7 leaf stage. -2 nd application: Apply at the pin head square stage. -3 rd application: Apply at first bloom.	Apply thoroughly until dripping.
Sorghum	-Make one application, 5-8 days after full bloom.	Apply thoroughly until dripping.
Peanut	-1 st application: Apply at the 3-5 leaf stage. - 2 nd application: Apply at initial pegging. - 3 rd application: Apply 14 days after second application. -4 th application: Apply during pod fill.	Apply thoroughly until dripping.
Rice	-Make one application 8 days after full bloom.	Apply thoroughly until dripping.
Wheat	-Make one application 8 days after full bloom.	Apply thoroughly until dripping.

TURFGRASS

For Sod Grass: Apply **VALIDATE™** by ground using 20-40 gallons of water per acre. Apply 2.5 fl. oz. to 5.0 fl. oz. product in 20 gal. to 40 gals. of water, respectively, at a 1:1000 dilution rate.

For Turfgrass:

Apply **VALIDATE™** by ground according to the table below using 1-10 gallons of water per 1000 sq. ft. Use **VALIDATE™** for **turf growth suppression** at the dilution rate of 1: 1000 (1.3 fl. oz. product per 10 gals. water)

Turf	Amount (VALIDATE™/gals water/1000 sq ft)	How and when to apply
Warm Climate grasses such as: St Augustine, Bermuda, Bermuda hybrids, Centipede & similar warm season grasses	0.13 fl.oz. per gallon of water per1000 sq. ft.	Make applications at 2-week intervals during the growing season.
Dichondra	0.13 fl.oz. per gallon of water per1000 sq. ft.	Treat as above
Cool Climate grasses such as: Bluegrass, Rye, Fescue, and similar cool season grasses	0.13 fl.oz. per gallon of water per1000 sq. ft.	Treat as above

ORNAMENTALS

Greenhouse and nursery grown ornamentals

Differences in responsiveness may vary from one cultivar to another or from one set of growing conditions to another. Unless previous experience dictates otherwise, prior to widespread use, test a small number of plants from each cultivar to verify desired efficacy.

Application Rates and Timing for Foliage Plants, Bedding and Flowering Plants, Woody Ornamentals and Garden Grown Tree Fruits::

Dilute 1.3 fl. oz. of VALIDATE™ in 10 gallons of water (1:1000 dilution rate) Repeat applications at 10-14 day intervals when required. Apply the last spray 1-2 weeks prior to sale. Uniform and thorough spray coverage is necessary for best results.

Foliage Plants:

Aglaonema, Ajuga, Anthurium, Aphelandra, Caladium, Cissus, Dieffenbachia, Dracaena, Ficus, Fittonia, Gynura, Hoya, Maranta, Palms, Peperomia, Philodendron, Pilea, Pothos, Schefflera, Schlumbergera, Spathiphyllum, Syngonium, Tradescantia, Similar foliage plants.

Bedding and Flowering Plants: Abutilon, Aglais, Alyssum, Calceolaria, Canna, Carnation, Champaca, Chrysanthemum, Cineraria, Columbine, Coral Bells, Cyclamen, Dahlia, Delphinium, Dianthus, Foxglove, Fuchsia, Gardenia, Gazania, Geranium, Gladiolus, Gloxinia, Impatiens, Iris, Jasminum, Lily, Lupine, Marigold, Michelia, Monarda, Osmachus, Petunia, Poinsettia, Portulaca, Roses, Salvia, Scabiosa, Sedum, Sempervivum, Tulips, Vinca, Zinnia, Similar plants.

Woody Ornamentals

Arborvitae, Aucuba, Azalea, Boxwood, Carissa, Chinese magnolia, English Ivy, Holly, Juniper, Maple, Pine, Podocarpus, Rhododendron, Viburnum, Similar plants.

Garden Grown Tree Fruits

Apple, Asian pear, Apricot, Cherry, Fig, Guava, Grape, Jujubee, Kumquat, Lemon, Litchi, Longara, Mango, Orange, Peach, Persimmon, Plum, Prunus, Starfruit, Similar plants.

VALIDATE™ is not a fertilizer; incorporate good fertilization program practices.

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STORAGE AND DISPOSAL

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

PESTICIDE STORAGE:

Protect from freezing. Store out of direct sunlight.

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:

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY DISCLAIMER AND NOTICE

THE DIRECTIONS FOR USE OF THIS PRODUCT ARE BELIEVED TO BE ADEQUATE AND 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 DUE TO SUCH FACTORS AS WEATHER CONDITIONS, PRESENCE OR ABSENCE OF OTHER MATERIALS, OR THE MANNER OF USE OR APPLICATION, ALL OF WHICH ARE BEYOND THE CONTROL OF LOVELAND PRODUCTS, INC., THE MANUFACTURER OR SELLER. THE PRODUCTS SOLD TO YOU ARE FURNISHED "AS IS" BY LOVELAND PRODUCTS, INC., THE MANUFACTURER OR SELLER, AND ARE SUBJECT ONLY TO THE MANUFACTURER'S WARRANTIES, IF ANY, WHICH APPEAR ON THE LABELS TO THE PRODUCTS SOLD TO YOU. EXCEPT AS EXPRESSLY PROVIDED HEREIN, LOVELAND PRODUCTS, INC., THE MANUFACTURER OR SELLER MAKES NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD OR USE OF THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. EXCEPT AS EXPRESSLY STATED HEREIN, LOVELAND PRODUCTS, INC., THE MANUFACTURER OR SELLER MAKES NO WARRANTY OF RESULTS TO BE OBTAINED BY USE OF THE PRODUCT. BUYER'S OR USER'S EXCLUSIVE REMEDY, AND LOVELAND PRODUCTS, INC.'S, THE MANUFACTURER'S OR SELLER'S TOTAL LIABILITY, SHALL BE LIMITED TO DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT. NO AGENT OR EMPLOYEE OF LOVELAND PRODUCTS, INC. OR SELLER IS AUTHORIZED TO AMEND THE TERMS OF THIS WARRANTY DISCLAIMER OR THE PRODUCT'S LABEL OR TO MAKE A REPRESENTATION OR RECOMMENDATION DIFFERENT FROM OR INCONSISTENT WITH THE LABEL OF THIS PRODUCT. IN NO EVENT SHALL LOVELAND PRODUCTS, INC., THE MANUFACTURER OR SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES AND THE BUYER AND USER WAIVE ANY RIGHT THEY MAY HAVE TO SUCH DAMAGES.

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