

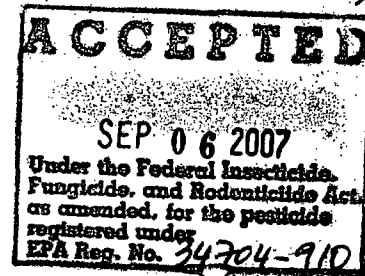
34704-910

09-06-2007

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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

EPA Reg. No. 34704-910

EPA Est. No. 72639-CA-001

NET CONTENTS: 1 U.S. GALLON (3.785 L)

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

| | |
|--------------------------------|--|
| If on skin or clothing: | <ul style="list-style-type: none"> • 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 |
| If in eyes: | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 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 |

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eye, skin or clothing. Wash thoroughly with water and soap after handling and before eating, drinking, chewing gum or using tobacco.

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.

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 ≥ 14 mils, or natural rubber ≥ 14 mils, or neoprene rubber ≥ 14 mils or nitrile rubber ≥ 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.

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

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.

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Efficacy is dependent on thorough coverage. Choose the rate below which will provide thorough coverage of vegetation.

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 | -1st application: At flowering stage. -2nd application: 2 weeks after first application. -3rd application: 7-10 days before harvest. | 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 1st 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 1st 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. | |
| Tuber Vegetables such as: Potato, Sweet potato, Yam | -1st application: At tuber initiation stage. -2nd application: 2-3 weeks after first application. -3rd application: At early bloom stage | |
| Root Vegetables such as: Carrot, Radish, Turnip, Ginseng, Horseradish, Parsley (turnip-rooted) and Sugar beet | -1st application: At plant thinning stage. -2nd application: 3 weeks after first application. -3rd application: Apply 2 weeks prior to harvest. | |
| Legume Vegetables | -1st application: Apply at the 3-5 trifoliate leaf stage. -2nd application: Apply at 5-10% each bloom. -3rd application: Apply at each pod stage, if needed. | |
| Citrus Fruits such as: Sweet orange, Lemon and Grapefruit | -1st application: At small fruit stage when fruit size is approx. 6-8 mm. -2nd application: 40 days prior to harvest. -3rd application: 20 days prior to harvest | |
| Pome/Stone Fruits such as: Apple, Apricot, Cherry, Plum, Plumcot and Peach | -1st application: At small fruit stage when fruit size is approx. 6-8 mm. -2nd application: 40 days prior to harvest. -3rd 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) | -1st application: 2 weeks prior to bloom -2nd application: 2 weeks following petal fall -3rd application: 30 days after last application -4th application: 30 days after last application | |
| Grape | -1st application: 2 weeks before bud break -2nd application: Small berry stage (4-6 mm in size). -3rd application: 40 days prior to harvest. -4th 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 | -1st application at early flowering stage -2nd application 2 weeks after 1st application -Repeat applications every two weeks | |
| Cotton | -1st application: Apply when plants are in 3-7 leaf stage. -2nd application: Apply at the pin head square stage. -3rd application: Apply at first bloom. | |
| Sorghum | -Make one application, 5-8 days after full bloom. | |
| Peanut | -1st application: Apply at the 3-5 leaf stage. - 2nd application: Apply at initial pegging. - 3rd application: Apply 14 days after second application. -4th application: Apply during pod fill. | |
| Rice | -Make one application 8 days after full bloom. | |
| Wheat | -Make one application 8 days after full bloom. | |

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 |

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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, Jujube, Kumquat, Lemon, Litchi, Longara, Mango, Orange, Peach, Persimmon, Plum, Prunus, Starfruit, Similar plants.

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

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.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. 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 when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL, THIS PRODUCT IS SOLD AS IS TO THE EXTENT ALLOWED BY APPLICABLE LAW. LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL, BUYER OR USER MUST SEND, TO THE EXTENT REQUIRED BY APPLICABLE LAW, WRITTEN NOTICE OF SUCH CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC.; ATTENTION: LAW DEPARTMENT; 7251 W. 4TH STREET; GREELEY, CO 80634.

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT ALLOWED BY APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

VALIDATE™ is a trademark of Loveland Products, Inc.

Manufactured for:



P.O. Box 1286
Greeley, CO 80632