

73314-1

1/7/2008

Page 1825

JAN 07 2008

Heather R. Bjornson
 Consultant to Natural Industries, Inc.
 Technology Sciences Group, Inc.
 1150 18th Street NW, Suite 1000
 Washington, DC 20036

Dear Ms. Bjornson:

Subject: Actinovate Soluble
 EPA Reg. No. 73314-1
 Application for an amendment dated August 29, 2007

On August 29, 2007, you submitted an amendment to revise the formulation and label of the subject product. The amendment request included a supplemental product chemistry volume (MRID # 472205-01) and a new CSF (basic formulation, dated August 29, 2007).

BPPD has reviewed your application and supporting materials and has determined that the new formulation and label are acceptable. As such, the amendment referred to above under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided that you submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data. The new CSF has been added to the record file for the product. A stamped copy of the approved product label is enclosed for your records.

If you have any questions, please contact Alan Reynolds of my staff at (703) 605-0515 (e-mail: reynolds.alan@epa.gov).

Sincerely,



Sheryl Reilly, Ph.D., Branch Chief
 Microbial Pesticides Branch (7511P)
 Biopesticides and Pollution Prevention Division

Enclosure

CONCURRENCES

| | | | | | | | |
|---------|----------|--|--|--|--|--|--|
| SYMBOL | 7511P | | | | | | |
| SURNAME | Reynolds | | | | | | |
| DATE | 1/7/08 | | | | | | |

2825

ACTINOVATE® SOLUBLE
(ALTERNATE BRAND NAME: ACTINOVATE® SP)
MASTER LABEL

Sublabel A Turf, Greenhouse, Nursery and Landscape Use
Sublabel B Agriculture Production Use
Sublabel C Residential Use
Optional Label Claims

ACTIVE INGREDIENT:

Streptomyces lydicus WYEC 108*00.0371%

OTHER INGREDIENTS: 99.9629%
100.0000%

*End-use product contains not less than 1×10^7 colony forming units per gram *Streptomyces lydicus* WYEC 108

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

KEEP OUT OF REACH OF CHILDREN
CAUTION

See back panel for additional precautionary statements.

US Patent Number: 5,403,584

EPA Reg. No.: 73314-1

EPA Establishment No.: 73314-TX-001

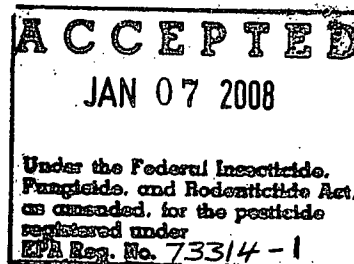
Manufactured by:

Natural Industries, Inc.

6223 Theall Road

Houston, Texas 77066

Questions? (888) 261-4731



3 8 25

Sublabel A: Turf, Greenhouse, Nursery, and Landscape Use

ACTINOVATE® SOLUBLE
(ALTERNATE BRAND NAME: ACTINOVATE® SP)

ACTIVE INGREDIENT:

Streptomyces lydicus WYEC 108*00.0371%

OTHER INGREDIENTS:99.9629%

100.0000%

*End-use product contains not less than 1×10^7 colony forming units per gram *Streptomyces lydicus* WYEC 108

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

KEEP OUT OF REACH OF CHILDREN
CAUTION

See back panel for additional precautionary statements.

US Patent Number: 5,403,584

EPA Reg. No.: 73314-1

EPA Establishment No.: 73314-TX-001

Manufactured by:

Natural Industries, Inc.

6223 Theall Road

Houston, Texas 77066

Questions? (888) 261-4731

Net Contents: 18-oz

4 8 25

PRECAUTIONARY STATEMENTS

Personal Protective Equipment (PPE): Applicators and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks. Mixer/loaders and applicators must wear a dust/mist-filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning / maintaining PPE. Keep and wash PPE separately from other laundry.

User Safety Recommendations: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. Users should remove clothing immediately if pesticide gets inside. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

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 intervals (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

For foliar application, such as foliar greenhouse, nursery, landscape and turfgrass, do not allow worker entry into treated areas during the restricted entry interval (REI) of one (1) hour or until solution has dried. Exception: If the product is soil incorporated (such as landscape, ornamental bulbs, seed coating and

drench) the Worker Protection Standard, under certain circumstances, allows workers to enter treated area if there is no contact with anything that has been treated.

PPE requirements 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 and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of the 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.

Keep unprotected persons out of treated areas until sprays have dried or dusts have settled.

General Information:

Actinovate® Soluble is a biological fungicide for the suppression/control of root rot and damping-off fungi and the suppression/control of foliar fungal pathogens. When used as a soil drench, soil borne fungi controlled include *Fusarium*, *Rhizoctonia*, *Pythium*, *Phytophthora*, *Phytomatotricum*, *Aphanomyces*, *Monosporascus*, *Armillaria*, *Sclerotinia*, *Postia*, *Verticillium*, *Geotrichum*, and other root-decay fungi. The active ingredient in Actinovate® Soluble colonizes the root system and protects it from harmful fungi. When used as a spray, Actinovate® Soluble effectively suppresses/controls foliar diseases such as Powdery and Downy Mildew, *Botrytis*, *Sclerotinia*, *Alternaria*, and others.

When applied to the soil Actinovate® Soluble also breaks down minerals and micronutrients making them more available to plants resulting in increased size and vitality. Plants and turf treated with Actinovate® Soluble as a soil drench will become hardier, more vigorous and have a robust and protected root system.

APPLICATION DIRECTIONS:

Compatibility

Actinovate® Soluble is completely soluble and does not require agitation to keep suspended in a solution. Actinovate® Soluble is compatible with chemical fungicides, insecticides and fertilizers. If tank mixes are desired, observe all directions, precautions and limitations on labeling of all products used. Actinovate® Soluble can be tank mixed or dry mixed with all chemical fungicides, insecticides, and fertilizers unless otherwise restricted. Consult manufacturer for compatibility questions.

Application Timing

Apply Actinovate® Soluble throughout the growing season from early spring to late fall on all types of turf, ornamental, except for foliar applications to greenhouse vegetable crops – apply only as pre-bloom application or after harvest. Note: Actinovate® Soluble contains live spores of a microbe that should be used prior to disease onset to obtain best results. Actinovate® SP becomes active in soil or on the plant foliage when the temperatures are above 45° F. and is not effective when temperatures remain cold. Actinovate® SP can be applied to sterilized or fumigated soil but it must be applied after sterilization or fumigation.

Application Uses:

Actinovate® Soluble is a biological fungicide for use in soil and seed coating applications (drench and in furrow) and greenhouse/nursery foliar applications in or on ornamentals, landscape plants, including tree seedlings for transplanting to the field. For foliar applications, Actinovate® Soluble can only be applied in or on all raw agricultural commodities and food and fiber crops (greenhouse use only).

GREENHOUSE, NURSERY OR INTERIORESCAPE DRENCH

Mix 4-6 oz. of Actinovate® Soluble in 100 gallons of water to create solution. Apply solution as a drench to plants/growing media at a rate of 1 gallon per cubic foot of growing media (this equates to enough solution to saturate soil without creating run-off).

For smaller quantities: Use 1 teaspoon of Actinovate Soluble per 2 gallons of water to create solution and apply as above.

Actinovate® Soluble can be applied through low pressure watering nozzles such as fan nozzles, through overhead boom type sprayers or sprinklers, hydroponics systems, injectors, flood benches or other drench watering systems. Actinovate® Soluble is compatible with chemical fungicides, insecticides, and fertilizers as well as other biological products.

Cutting or Bare Rooted Transplant Dip:

Dip cuttings or transplants in Actinovate® Soluble dry powder or in a solution of 18-oz Actinovate® Soluble and 5 gallons water. For larger trees or woody ornamental, dissolve 18-oz of Actinovate® Soluble in 50 gallons of water and let bare root plants soak in the solution for 4-12 hours prior to planting. Plant treated cuttings or transplants in potting mix or soil in the usual manner.

GREENHOUSE, NURSERY, LANDSCAPE AND INTERORSCAPE FOLIAR SPRAYS

For preventative suppression/control of powdery mildew, downy mildew, *Botrytis*, *Sclerotinia*, and *Alternaria* and other foliar diseases on indoor greenhouse crops.

Apply 6-12 oz Actinovate® Soluble per acre. Dissolve Actinovate® Soluble in 50-100 gallons of water and apply to foliage and blossoms every 7 to 14 days depending on disease pressure. Crop size, spray equipment and local practice will determine the volume of water needed. Spray to wet, but avoid run-off. Actinovate® Soluble can be applied using hand-held backpack or ground spray equipment. Clean application equipment before use of this product, and use prepared sprays within 4 hours of preparation. For best results use a non-ionic spreader-sticker in conjunction with application. Consult manufacturer or sales representative for specific product recommendations. Actinovate® Soluble can be used in all types of spray equipment including aerial applications.

For smaller quantities use 1 teaspoon per gallon of water as a dilution rate.

Ornamental Bulb Crops:

Including corms, rhizomes, tubers and seeds

Soak: Soak bulbs in solution of Actinovate® Soluble at 6 -18 oz per 100 lbs. of bulbs. Thoroughly cover all surfaces of bulbs with solution for 1 hour prior to planting).

Soil Drench: Apply to soil through irrigation or as an in-furrow seed spray at a rate of 6-12 oz per acre.

Dusting: Prior to Planting Or Shipping: Evenly dust bulbs at a rate of 2-6 oz per 100-lb of bulbs

TURF GRASS

Golf Courses, Sod Farms, Residential and Commercial Lawns:

Soil Drench Application: Mix Actinovate® Soluble with appropriate amount of water (1.8-3.6 gallons per 1000 sq. ft.)). Water in immediately after application with sprinklers for 3-6 minutes. Apply at a rate of 54-oz of Actinovate® Soluble per acre for initial application or problem areas when soil temperatures are above 45°F. Apply maintenance applications of 18 oz. per acre every 4 to 8 weeks through season or until soil temperatures reach 45°F or less. A soil surfactant is recommended to best move the solution to the root zone of the turf. Consult manufacturer for product recommendations.

Foliar Spray Application: Mix Actinovate® Soluble with appropriate amount of water (50-150 gallons per acre). Apply in early morning or evening on wet turf.

For smaller quantities:

For initial application or problem area use 3 tablespoons (36 grams) of Actinovate® Soluble in 5 gallons of per 1,000 sq. ft. of turf grass.

8 7 25

For maintenance application use 1 tablespoon (12 grams) of Actinovate® Soluble in 5 gallons of water per 1,000 sq. ft. of turf.

LANDSCAPE AND INTERIORESCAPE

For Transplants, Installations and Established Plants: Dissolve 1 teaspoon per 2 gallons of water to create a solution. Apply solution to soil around plant's root system until soil is saturated without creating a run-off. Apply to plant before, during or after transplant.

For foliar spray dissolve 1-2 teaspoons per 2 gallons of water and apply in order to acquire thorough uniform coverage. Volume of solution needed will vary with crop type and growth.

GREENHOUSE AND NURSERY CHEMIGATION

Apply Actinovate® Soluble at 4-6 oz per 100 gallons of water. Actinovate® Soluble may be applied through 1) overhead boom and mist-type systems, sprinklers such as impact or micro-sprinklers 2) pressurized drench (flood) or drip (trickle) systems 3) micro irrigation such as spaghetti-tube or individual tube irrigation, 4) hand-held calibrated irrigation equipment such as hand-held wand with injector and 5) ebb and flow systems.

Do not apply this product through any other type of irrigation system.

Plant injury or lack of effectiveness can result from non-uniform distribution of treated water. Questions concerning calibration should be directed to your State Extension Service Specialist, the equipment manufacturer or other expert.

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

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 back flow.

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

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 functional 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 functional pressure switch which 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.

If you have any questions regarding calibrations, contact equipment manufacturers, state extension specialists or other experts.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a dry, cool place out of direct sunlight and away from heat sources. Keep from overheating or freezing. Optimum storage temperature is 40° F to 85° F.

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: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying. Offer for recycling if available.

Batch Code: XXX

Limited Warranty / Disclaimer

Manufacturer warrants that this product is suited for the labeled use when applied according to label directions. Manufacturer makes no warranty of merchantability. There are no warranties that extend beyond the description on this label and in no event shall manufacturer be liable for any consequential damages.

10 8 25

Manufactured By:

Natural Industries, Inc.

6223 Theall Rd.

Houston, TX 77066

Questions? (888) 261-4731

www.naturalindustries.com

BEST IF USED BY:

LOT NUMBER:

11 8 25

SUBLABEL B: AGRICULTURE PRODUCTION USE

**ACTINOVATE® SOLUBLE
(ALTERNATE BRAND NAME: ACTINOVATE® AG)**

ACTIVE INGREDIENT:

Streptomyces lydicus WYEC 108*00.0371%

OTHER INGREDIENTS:99.9629%
100.0000%

*End-use product contains not less than 1 X 10⁷ colony forming units per gram *Streptomyces lydicus* WYEC 108

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See back panel for additional precautionary statements.

US Patent Number: 5,403,584

EPA Reg. No.: 73314-1

EPA Establishment No.: 73314-TX-001

Manufactured by:

Natural Industries, Inc.

6223 Theall Road

Houston, Texas 77066

Questions? (888) 261-4731

Net Contents: 18-oz

12 7 25

PRECAUTIONARY STATEMENTS

Personal Protective Equipment (PPE): Applicators and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks. Mixer/loaders and applicators must wear a dust/mist-filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning / maintaining PPE. Keep and wash PPE separately from other laundry.

User Safety Recommendations: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. Users should remove clothing immediately if pesticide gets inside. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

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 intervals (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

For foliar application do not allow worker entry into treated areas during the restricted entry interval (REI) of one (1) hour or until solution has dried. Exception: If the product is soil incorporated the Worker Protection Standard, under certain circumstances, allows workers to enter treated area if there is no contact with anything that has been treated.

PPE requirements 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 and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of the 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.

Keep unprotected persons out of treated areas until sprays have dried or dusts have settled.

General Information:

Actinovate® Soluble is a biological fungicide for the suppression of root rot and damping-off fungi and the suppression of foliar fungal pathogens. When used as a soil drench or seed treatment, soil borne fungi suppressed include *Fusarium*, *Rhizoctonia*, *Pythium*, *Phytophthora*, *Phymatotrichum omnivorum* (cotton root rot), *Aphanomyces*, *Monosporascus*, *Armillaria*, *Sclerotinia*, *Postia*, *Verticillium*, *Geotrichum*, and other root-decay fungi. The active ingredient in Actinovate® Soluble colonizes the root system and protects it from harmful fungi. When used as a spray, Actinovate® Soluble effectively suppresses foliar diseases such as Powdery and Downy Mildew, *Botrytis*, *Monilinia*, *Anthraco*, Greasy Spot, *Sclerotinia*, *Alternaria*, *Erwinia* and others.

When applied to the soil Actinovate® Soluble also breaks down minerals and micronutrients making them more available to plants resulting in increased size and vitality. Plants treated with Actinovate® Soluble as a soil application will become hardier, more vigorous and have a robust and protected root system.

INTEGRATED PEST MANAGEMENT (IPM)

Integrate Actinovate® Soluble into an overall disease and pest management strategy whenever fungicide use is necessary. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

USE RATE DETERMINATION –Agricultural Use

Carefully read and follow all label directions, use rates and restrictions. Actinovate® Soluble should be applied prior to or in the early stages of disease development. For proper foliar application, determine the number of acre to be treated, the recommended label use rate and select the appropriate gallonage to give thorough uniform coverage of all plant parts to be protected except for food crops. For proper soil application, determine the number of acres to be treated, the recommended label use rate and select the

appropriate gallonage to give good saturation of the soil in order for the product to establish itself on the root system. For best results apply product solution to damp soil.

Prepare only the amount of spray or soil drench solution to treat the measured area. Accurate spray equipment calibration is essential prior to use.

PREHARVEST INTERVAL – Agricultural Use

Actinovate® Soluble can be applied for soil, seed, and chemigation treatment up to and including the day of harvest

APPLICATION DIRECTIONS:

Compatibility

Actinovate® Soluble is completely soluble and does not require agitation to keep suspended in a solution. Actinovate® Soluble is compatible with chemical fungicides, insecticides and fertilizers. If tank mixes are desired, observe all directions, precautions and limitations on labeling of all products used. Actinovate® Soluble can be tank mixed and dry mixed with all chemical fungicides, insecticides, and fertilizers unless otherwise restricted. Avoid applying soil fumigants to the areas treated with Actinovate® Soluble. Consult manufacturer for compatibility questions.

Application Timing

Apply Actinovate® Soluble throughout the growing season from early spring to late fall on all types of production agriculture crops.

Note: Actinovate® Soluble contains live spores of a microbe that should be used prior to disease onset to obtain best results. Actinovate® Soluble becomes active in soil or on the plant foliage when the temperatures are above 45° F. and is not effective when temperatures remain cold. Actinovate® Soluble can be applied to sterilized or fumigated soil but it must be applied after sterilization or fumigation.

Application Uses:

Actinovate® Soluble is a biological fungicide for use in soil applications (drench and in furrow) and seed treatment in or on all raw agricultural commodities, food and fiber crops, and other agricultural production crops.

GREENHOUSE VEGETABLES AND HERBS:

For use on all greenhouse vegetable and herb crops listed in the section "Crops on which Actinovate® Soluble may be used". Drench: 4-6 oz per 100 gallons as a soil drench. For hydroponics systems use 18-54 ounces per acre (0.5-1.5 ounce per 1,000 square feet of growing area).

Foliar Spray: 6-12 oz per acre in 50-150 gallons of water. Use of a spreader-sticker (adjuvant) in conjunction with foliar application is recommended.

AGRICULTURE PRODUCTION

For soil treatment and seed treatment for the control of *Pythium*, *Rhizoctonia*, *Phytophthora*, *Fusarium*, *Verticillium*, *Phymatotrichumomnivorum* (cotton root rot) and other root decay fungi.

For foliar treatment of Powdery Mildew, *Botrytis*, *Sclerotinia*, *Monilinia*, Greasy Spot, *Alternaria*, Downy Mildew and other foliar fungi.

Soil Treatment At Planting:

Use at planting, seeding, or transplant. Apply 3-12 oz of Actinovate® Soluble dissolve in appropriate amount of water, per acre.

Soil Treatment Through Irrigation:

Actinovate® Soluble may be used in drip, overhead or other type of irrigation system at any stage of the plant growth as a soil treatment. Use 3-12 oz of Actinovate® Soluble, dissolved in enough water, per acre.

Foliar Treatment

Use 3-12 oz of Actinovate® Soluble in 20-150 gallons of water per acre. Apply initial application prior to onset of disease season. Reapply every 7-14 days depending on disease pressure and environmental conditions. For best results use a spreader-sticker (adjuvant) in conjunction with product application pre-bloom only of after harvest, when no food crop is present on the field. Actinovate® Soluble can be used in all types of spray equipment including aerial applications.

Dusting and coating of bulbs, corms, tubers, rhizomes and seeds:

Prior to Planting Or Shipping, evenly dust bulbs at a rate of 2-6 oz per 100-lb of bulbs, corms, tubers, rhizomes or seeds

16 8 25

Crops on which Actinovate® Soluble may be used

| CROPS | Soil Drench Rate | Follar Spray Rate |
|--|-------------------------|--|
| <p>Agronomic Field and Row Crops: buckwheat, corn (all types), cotton, canola, safflower, sunflower, succulent and dry peas, peanuts, soybeans and other agronomic field and row crops</p> | 3-oz per acre | <p>3-12 ounces per acre. Reapply every 7-14 days For best results use with spreader-sticker.</p> |
| <p>Alfalfa Hay and Forage: Alfalfa, clover, vetch, trefoil</p> | | |
| <p>Cucurbit Vegetables: cucumbers, melons, gourds, squash, cantaloupe, and other curcubits</p> | 3-12 oz per acre | 3-12 ounces per acre. |
| <p>Fruiting Vegetables: Eggplant, sweet peppers, hot peppers, tomatoes, tomatillos and other fruiting vegetables</p> | | <p>Reapply every 7-14 days For best results use with spreader-sticker.</p> |
| <p>Herb, Spices and Mints: sage, rosemary, thyme, peppermint, dill, basil, Oregano and other herbs and spices</p> | | |
| <p>Leafy Vegetables and Cole Crops: Broccoli, brussel sprouts, cabbage, cauliflower, celery, collards, endive, kale, kohlrabi, lettuce, mustard greens parsley, spinach and other leafy vegetable crops</p> | | |
| <p>Legume and Vegetable Crops: snap and dry beans, lentils, succulent and dry peas, peanuts, soybeans and other legume/vegetable crops</p> | | |
| <p>Small Grains: rye, sorghum, millet and other small grains</p> | | |
| <p>Root/Tuber and Bulb Crops: Garlic, onions, white potatoes, sweet potatoes, carrot, ginger, ginseng, horseradish, turnip, beets, radish and other root/tuber/bulb crops</p> | | |
| <p>Berry Crops Blueberries, blackberry, raspberry, loganberry, huckleberry, gooseberry, elderberry, currant, caneberry and other berry crops</p> | | |

Strawberry

Asparagus

Citrus

Orange, grapefruit, lemon, tangerine, tangelo, lime, pummelo and other citrus crops

Corn

Popcorn, seed corn, sweet corn and other corn crops

Grape

Wine grapes, table grapes, raisons and other grape crops

Hops

Pome Fruit

Apple, crabapple, pear, quince, mayhaw and other pome fruit

Stone Fruit

Apricot, cherry, nectarine, peach, plum, prune and other stone fruit

Tree Nuts

Almond, pistachio, pecan, walnut, filberts and other tree nuts

Tropical Fruits

Avocado, mango, papaya and other tropical fruits

Bananas/ Plantains

Watercress

Mushrooms

Turf Grass

CHEMIGATION

Apply 3-12 ounces of Actinovate® Soluble in 20-200 gallons of water per acre. Actinovate® Soluble may be applied through 1) overhead boom and mist-type systems, sprinklers such as impact or micro-sprinklers 2) pressurized drench (flood) or drip (trickle) systems 3) micro irrigation such as spaghetti-tube or individual tube irrigation, 3) hand-held calibrated irrigation equipment such as hand-held wand with injector and 5) ebb and flow systems, 6) sprinkler and drip irrigation systems including central pivot, lateral move, end tow, side wheel roll, traveler, solid set or hand move systems.

Do not apply this product through any other type of irrigation system.

18 7 25

Plant injury or lack of effectiveness can result from non-uniform distribution of treated water. Questions concerning calibration should be directed to your State Extension Service Specialist, the equipment manufacturer or other expert.

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

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 back flow.

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

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 functional 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 functional pressure switch which 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.

If you have any questions regarding calibrations, contact equipment manufacturers, state extension specialists or other experts.

19 7 25

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a dry, cool place out of direct sunlight and away from heat sources. Keep from overheating or freezing. Optimum storage temperature is 40° F to 85° F.

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: Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying. Offer for recycling if available.

Batch Code: XXX

Limited Warranty / Disclaimer

Manufacturer warrants that this product is suited for the labeled use when applied according to label directions. Manufacturer makes no warranty of merchantability. There are no warranties that extend beyond the description on this label and in no event shall manufacturer be liable for any consequential damages.

Manufactured By:

Natural Industries, Inc.

6223 Theall Rd.

Houston, TX 77066

Questions? (888) 261-4731

www.naturalindustries.com

BEST IF USED BY:

LOT NUMBER:

20 8 25

Sublabel C: Residential Use

ACTINOVATE® SOLUBLE
(ALTERNATE BRAND NAME: ACTINOVATE® LAWN & GARDEN)

ACTIVE INGREDIENT:

Streptomyces lydicus WYEC 108*00.0371%

OTHER INGREDIENTS:99.9629%

100.0000%

*End-use product contains not less than 1×10^7 colony forming units per gram *Streptomyces lydicus* WYEC 108

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>

KEEP OUT OF REACH OF CHILDREN

CAUTION

See back panel for additional precautionary statements.

US Patent Number: 5,403,584

EPA Reg. No.: 73314-1

EPA Establishment No.: 73314-TX-001

Manufactured by:

Natural Industries, Inc.

6223 Theall Road

Houston, Texas 77066

Questions? (888) 261-4731

Net Contents: 18-oz

| FIRST AID | |
|--|---|
| If inhaled: | <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • 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. | |

PRECAUTIONARY STATEMENTS

Hazards to humans and domestic animals. Caution. . Avoid breathing dust. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

Environmental Hazards: Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinseate.

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.

General Information:

Actinovate® Soluble is a biological fungicide for the suppression/control of root rot and damping-off fungi and the suppression/control of foliar fungal pathogens. The active ingredient in Actinovate® Soluble is a patented bacterium that, when applied, grows around the root system (when soil drenched) and foliage of the plant (when sprayed on). Actinovate® Soluble uses several novel modes of antifungal action to protect plants and lawns. Actinovate® Soluble may be used on all vegetables, fruits, and nuts including tomatoes, peppers, melons, carrots, broccoli, lettuce, onions, apples, pears, and walnuts in addition to annual and perennial bedding plants and flowers, roses, potted flowers, foliage plants, trees, shrubs and lawns located in residential homes, residential greenhouses and residential and commercial landscapes. Actinovate® Soluble can be applied up to and including the day of harvest.

In addition, when applied to the soil, Actinovate® Soluble also breaks down minerals and micronutrients making them more available to plants resulting in increased size and vitality. Plants and turf treated with Actinovate® Soluble as a soil drench will become hardier, more vigorous and have a robust and protected root system.

Diseases Controlled/Suppressed

Soil Diseases (When applied as a drench): _____ Foliar Diseases (When applied as a spray)

- *Root Rot and damping off in ornamentals & vegetables (Pythium, Phytophthora, Rhizoctonia, Fusarium et.al)
- *Powdery and downy mildew *Grey Mold (Botrytis)
- *Turf Brownpatch (*Rhizoctonia*) *Black Spot (*Diplocarpon rosae*)
- *Turf Dollarspot (*Sclerotinia*) *Leaf Spots and Rusts
- *Turf Take-all patch (*Gaeumannomyces graminis*) *Fire Blight (*Erwinia*)
- *And others ... *And others...

APPLICATION DIRECTIONS:

Compatibility

Actinovate® Soluble is completely soluble and does not require continuous mixing to keep suspended in a solution. Actinovate® Soluble is compatible with all fungicides, insecticides and fertilizers, unless otherwise restricted. If tank mixes are desired, observe all directions, precautions and limitations on labeling of all products used. Avoid tank mixing with bactericides. Avoid applying bactericides to the areas treated with Actinovate® Soluble.

DIRECTIONS FOR USE:

SOIL DRENCH

Dissolve 1 teaspoon (4-grams) of Actinovate® Soluble per 2 gallons of water to create solution.

Apply solution to pot, base of plant, or roots of plant by watering until soil is completely saturated without creating run-off. One cup of solution usually treats about one 6" pot or its equivalent.

For best results apply to damp soil and/or apply in conjunction with a wetting agent. Pre-dampened soil will allow the Actinovate® Soluble microorganism to work to the root system of the plant much more easily.

FOLIAR SPRAY

Dissolve 1 teaspoon (4-grams) of Actinovate® Soluble per 2 gallons of water to create solution.

Spray leaves, stems, and new shoots to runoff providing complete coverage of entire plant. For best results, apply product prior to disease development or at the first sign of infection. Repeat at 7-day intervals to protect new foliage. Under conditions of heavy rainfall, it may be necessary to reapply the product after the rain has stopped. Do not water foliage within 4 hours of application. Use a pump bottle, handheld pump, backpack or similar type of spray equipment.

For best results use a spreader-sticker (a product designed to break the surface tension of water and evenly spread it over the surface of the foliage) in conjunction with application. Consult your garden

center or dealer for specific product recommendations. (Examples of spreader-stickers include Weather Shield®, Agri-2® and yucca extract)

LAWN TREATMENT:

Dissolve Actinovate® Soluble in the appropriate amount of water to create a solution. Apply solution to soil at a rate of 5 gallons per 1,000 sq. ft. Use 3 tablespoons of Actinovate® Soluble per 1,000 sq ft for initial application or problem areas. Use 1 tablespoon per 1,000 sq. ft for maintenance every 4-8 weeks. For best results use a wetting agent, such as yucca extract, Coco-Wet®, or Mega Wet®, in conjunction with Actinovate® Soluble in order to help move product to the root system of the lawn. Consult your garden center or dealer for specific product recommendations.

LAWN APPLICATION CHART:

| Amount of Actinovate® Soluble For Initial Application/Problem Area | Amount of Actinovate® Soluble For Maintenance Application | Amount of Water | Area To Treat | Application |
|--|---|-----------------|---------------|--|
| 3 tablespoons (36 grams) | 1 tablespoon (12 grams) | 5 gallons | 1,000 sq ft. | Use watering device or hose end sprayer to apply until soil is saturated. Reapply at maintenance rate every 4-8 weeks. |

HOSE-END SPRAYER SETTINGS FOR LAWNS

| Initial Application/Problem Area | Maintenance Application | Water to Add to Sprayer Jar | Dial Setting | Area Treated |
|---|--|-----------------------------|--|--------------|
| 3 tablespoons (36 grams) of Actinovate® Soluble | 1 tablespoon (12 grams) of Actinovate® Soluble | 32-oz | 1:20 (1-oz per 20-oz) 32-oz per 5 gallons | 1,000 sq ft |
| 15 tablespoons (180 grams) of Actinovate® Soluble | 5 tablespoon (60 grams) of Actinovate® Soluble | 32-oz | 1:100 (1-oz per 100-oz) 32-oz per 25 gallons | 5,000 sq ft |

STORAGE AND DISPOSAL

STORAGE: Store in a dry, cool area inaccessible to children. Store in original container only. Keep container sealed when not in use. **CONTAINER DISPOSAL:** If empty: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. If partially filled: Call your local solid waste Agency, or 1-800-CLEANUP, for disposal instructions. Never place unused product down any indoor or outdoor drain.
Batch Code: XXX

Limited Warranty / Disclaimer

Manufacturer warrants that this product is suited for the labeled use when applied according to label directions. Manufacturer makes no warranty of merchantability. There are no warranties that extend beyond the description on this label and in no event shall manufacturer be liable for any consequential damages.

Manufactured By:
Natural Industries, Inc.
6223 Theall Rd.
Houston, TX 77066
Questions? (888) 261-4731
www.naturalindustries.com

BEST IF USED BY:

LOT NUMBER:

Label version: 9.0

OPTIONAL LABEL CLAIMS

- Biological Fungus Control.
- Controls soil-borne plant diseases such as *Pythium*, *Rhizoctonia*, *Phytophthora*, *Verticillium*, *Fusarium* and others.
- Suppresses and Controls Foliar Disease such as Powdery Mildew, Downy Mildew, Greasy Spot, *Botrytis*, *Sclerotinia*, *Monilinia*, *Alternaria*, *Erwinia*, and others.
- 100% Soluble. Will not clog machinery.
- Enhances plant vitality.
- Encourages larger root systems.
- For Greenhouse, Nursery, Interiorscapes, Agriculture and Turf
- For turf diseases such as BrownPatch, Dollar Spot and Take-all Patch
- Use on Roses, Vegetables, Fruits, Flowering Plants, Trees and Shrubs. When used as a foliar spray on vegetables and fruits, may only be applied pre-bloom or after harvest, when no food crop is present.
- Fungicide that attacks harmful garden diseases
- Controls foliar diseases such as Powdery Mildew, Rust, Grey Mold, Black Spot and more
- Controls damping off and other root rot diseases
- Aids in Turf Recovery
- For Home, Garden and Lawn Care Use
- Concentrated Formula
- Treats Up to 5,000 sq. ft. of lawn or 550 6" potted plants
- Easy To Use

