

SEP 28 2012

Micah T Reynolds
Consultant to Natural Industries, Inc
Technology Sciences Group, Inc
1150 18th Street NW, Suite 1000
Washington, DC 20036

Dear Mr Reynolds

Subject Actinovate Soluble
EPA Reg No 73314-1
Application for an amendment dated October 11, 2011

On October 11, 2011, you submitted an amendment to revise the label of the subject product Label revisions were made to

- 1) Combine the previous five sublabels into two for greenhouse/nursery/turf grass/agricultural and residential uses,
- 2) Clarify statements in the directions for use section for nematode control,
- 3) Add sting and citrus nematodes as controlled pests

The labeling amendment referred to above under the Federal Insecticide, Fungicide, and Rodenticide Act 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 A stamped copy of the approved product label is enclosed for your records

Please submit two copies of your final printed label to the Agency prior to release of the product for shipment If you have any questions, please contact Alan Reynolds of my staff at (703) 605-0515 (e-mail reynolds alan@epa gov)

Sincerely,

Kimberly Nesci, Acting Branch Chief
Microbial Pesticides Branch (7511P)
Biopesticides and Pollution Prevention Division

CONCURRENCES

SYMBOL	Enclosure	7511P	7511P	7511P				
SURNAME		Reynolds	Nesci	Nesci				
DATE		9/26/12	9/27/12	9/28/12				

(Note to Reviewer [bracketed text] is optional or alternate wording, (parenthetical text) is informational)

ACTINOVATE® SOLUBLE

Sublabel A Greenhouse, Nursery, Turf Grass and Agricultural Use
Sublabel B Residential/Home & Garden Use
Optional Label Claims

EPA Reg No 73314-1

EPA Establishment No 73314-TX-001

Manufactured by

Natural Industries Inc

12320 Cutten Road

Spring TX 77066

Questions? (888) 261-4731

ACCEPTED

SEP 28 2012

Under the Federal Insecticide Fungicide,
and Rodenticide Act as amended, for
the pesticide registered under

EPA Reg No 73314-1

(Note to Reviewer [bracketed text] is optional or alternate wording (parenthetical text) is informational)

SUBLABEL A Greenhouse, Nursery, Turf Grass and Agricultural Use

(Front Panel)

ACTINOVATE® SOLUBLE

(Alternate Brand Names Actinovate® SP, Actinovate® AG, ActinoGro®, ActinoGro® TURF, Actinovate® Lawn & Garden and Actinovate® For Lawn & Garden ActinoGrow ActinoGrow T & O, Quell, Nemator, Knot Shot, ActinoStar NemaLogic ActinoX)

ACTIVE INGREDIENT

Streptomyces lydicus WYEC 108* 00 0371%

OTHER INGREDIENTS 99 9629%

TOTAL 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](http://www.aapfco.org/metals.htm)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See [back] [side] [other] panel for [first aid] [additional precautionary statements] [and directions for use]



US Patent Number 5 403 584

EPA Reg No 73314-1

EPA Establishment No 73314-TX-001

Manufactured by Natural Industries Inc

Natural Industries Inc

12320 Cutten Road

Spring Texas 77066

Questions? (888) 261-4731

Net Contents

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(Back Panel)

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals CAUTION Avoid contact with skin eyes or clothing
Avoid breathing dust or spray mist Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using the toilet

Personal Protective Equipment (PPE)

Applicators and other handlers must wear

- Long-sleeved shirt and long pants
- 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 If no such instructions for washables use detergent and hot water Keep and wash PPE separately from other laundry

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

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 If gloves are worn wash the outside of gloves before removing As soon as possible wash thoroughly and change into clean clothing

ENVIRONMENTAL HAZARDS

For terrestrial uses 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

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DIRECTIONS FOR USE

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

For early entry into 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 wear

- Coveralls
- Chemical-resistant gloves (made of any waterproof material)
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses of 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

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PRODUCT INFORMATION

Actinovate® Soluble is a biological fungicide for the suppression/control of plant diseases such as root rot and damping-off fungi; turf diseases such as brown patch, summer patch, dollar spot, and the suppression/control of foliar fungal pathogens. When used as a soil drench or as a seed treatment, soil borne fungi suppressed/controlled include *Fusarium*, *Rhizoctonia*, *Pythium*, *Phytophthora*, *Phytophthora omnivorum* (Cotton Root Rot), *Aphanomyces*, *Monosporascus*, *Armillaria*, *Sclerotinia*, *Gaeumannomyces*, *Postia*, *Verticillium*, *Geotrichum*, and *Gaeumannomyces graminis*. The active ingredient in Actinovate® Soluble colonizes the root system and protects it from harmful fungi. When used as a [foliar] [preventative] spray, Actinovate® Soluble effectively suppresses/controls foliar diseases such as Powdery and Downy Mildew, *Botrytis*, *Monilinia*, *Anthraco*, Greasy Spot, *Sclerotinia*, *Alternaria*, and *Erwinia*.

Actinovate® Soluble is also an effective biological nematicide for use against root nematodes such as Root Knot (*Meloidogyne*), Citrus (*Tylenchulus semipenetrans*) and Sting. The Actinovate Soluble microorganism produces metabolites that are destructive to the nematode egg, thereby reducing their population in the soil and root zone of plants.

Actinovate® Soluble is also effective against Walnut Blight (*Xanthomonas arboricola pv juglandis*), Bacterial Spot (*Xanthomonas perforans*), Citrus Canker (*Xanthomonas axonopodis pv citri*), Southern Blight (*Sclerotium rolfsii*), Angular Leaf Spot (*Xanthomonas fragariae*), Charcoal Rot (*Macrophoma phaseolina*), Club Root (*Plasmodiophora brassicae*), Bacterial Blast (*Pseudomonas syringae*), Rice Blast (*Magnaporthe grisea*), Sheath Spot (*Rhizoctonia oryzae*), Rice Stem Rot (*Sclerotium oryzae*), and Peach Leaf Curl (*Taphrina deformans*).

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 drench will become hardier, more vigorous, and will have a robust and protected root system.

INTEGRATED PEST MANAGEMENT (IPM)

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

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USE RATE DETERMINATION

Carefully read and follow all label directions use rates and restrictions For best results apply Actinovate® Soluble prior to or in the early stages of disease development For proper foliar application determine the number of [acres] [square feet] to be treated the specified label use rate and select the appropriate gallonage to give thorough and uniform coverage of all plant parts to be protected For proper soil application determine the number of [acres] [square feet] to be treated the specified 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 Maintaining moist soil after application will enable the product to perform as expected 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

Actinovate® Soluble can be applied 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 most chemical fungicides insecticides and fertilizers If tank mixes are desired observe the most restrictive 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 Do not apply soil fumigants to areas treated with Actinovate® Soluble If fumigants must be applied to the soil all fumigant active ingredient must be completely dissipated prior to applying Actinovate® Soluble

Application Timing

Apply Actinovate® Soluble throughout the growing season from early spring to late fall (when soil temperature is above 45°F) on ornamentals greenhouse nursery crops and production agriculture crops listed in the Crops on Which Actinovate® Soluble May be Used section Note Since Actinovate® Soluble contains live spores of a microbe best results will be obtained if the product is used prior to disease onset 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 active ingredient has dissipated

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Application Uses

Actinovate® Soluble is a biological fungicide and nematicide for use as a soil application (drench and in-furrow) seed treatment cutting or bare rooted transplant dip ornamental bulb crop soak or dusting treatment and foliar application for ornamentals all greenhouse and nursery crops landscape plants including tree seedlings for transplanting to the field and production agriculture crops listed in the Crops on Which Actinovate® Soluble May be Used section

GREENHOUSE, NURSERY, ORNAMENTAL LANDSCAPE OR INTERIORESCAPE SOIL APPLICATION

For indoor and outdoor applications including field stock and field grown cut flowers

For preventative suppression/control of *Pythium Rhizoctonia Phytophthora Fusarium Verticillium* and *Sclerotinia* on greenhouse nursery landscape and interiorscape crops

Soil 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) or until soil in pot (or root ball of plant) is completely saturated just prior to run off For smaller quantities Use 1 teaspoon of Actinovate® Soluble per 2 gallons of water to create solution and apply as above

Application to Soil At Blending Anytime prior to planting incorporate Actinovate Soluble into potting soil as a spray during blending Use 1 5-4 oz of Actinovate Soluble in an appropriate amount of water per yard of soil

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 most chemical fungicides insecticides and fertilizers as well as other biological products See the Compatibility section for additional details

Cutting or Bare Rooted Transplant Dip

Dip cuttings or transplants in Actinovate® Soluble dry powder or in a solution of 6-18-oz Actinovate® Soluble and 50 gallons water Let soak for up to three hours prior to planting Plant treated cuttings or transplants in potting mix or soil in the usual manner

GREENHOUSE, NURSERY, ORNAMENTAL LANDSCAPE AND INTERIORESCAPE FOLIAR SPRAYS

For indoor and outdoor applications including field stock and field grown cut flowers

For preventative suppression/control of Powdery Mildew Downy Mildew *Botrytis Phytophthora* *Sclerotinia* *Xanthomonas Pseudomonas* and *Alternaria* on greenhouse nursery landscape and interiorscape plants 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

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Crop size spray equipment and local practices will determine the volume of water needed Spray to wet but do not allow run-off

For smaller quantities Use 1 teaspoon of Actinovate® Soluble per gallon of water as a dilution and apply as above

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 suggestions

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 Dilute in enough water to completely cover 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 in 10-200 gallons of water at a rate of 6-12 oz of Actinovate® Soluble per acre

Dusting Prior to planting or shipping evenly dust bulbs at a rate of 2-6 oz of Actinovate® Soluble per 100 lbs of bulbs

GREENHOUSE VEGETABLES AND HERBS

For suppression of *Pythium Phytophthora Rhizoctonia Verticillium Fusarium Sclerotinia Botrytis Alternaria Anthracnose Xanthomonas Pseudomonas* Powdery Mildew and Downy Mildew on all greenhouse vegetable and herb crops listed in the section Crops on which Actinovate® Soluble May be Used

Soil Drench Use 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

Application to Soil At Blending Anytime prior to planting incorporate Actinovate Soluble into potting soil as a spray during blending Use 1 5-4 oz of Actinovate Soluble in an appropriate amount of water per yard of soil

Hydroponics systems Use 0 5-1 5 oz per 1 000 square feet of growing area

Foliar Spray 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 practices will determine the volume of water needed Spray to wet but do not allow run-off

For smaller areas or quantities

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Use the dilution rate of 1 teaspoon of Actinovate® Soluble per gallon of water as a dilution and apply to plants as above

For amount of product to use in a given area use 1-2 teaspoons (4-8 grams) dissolved in an appropriate amount of water per 1 000 sq ft of growing area

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 suggestions

AGRICULTURE PRODUCTION

For soil treatment and seed treatment for the suppression/control of *Fusarium Rhizoctonia Pythium Phytophthora Phymatotrichum omnivorum (cotton root rot) Aphanomyces Monosporascus Armillaria Sclerotinia Gaeumannomyces Postia Verticillium and Geotrichum*

For foliar treatment of Powdery and Downy Mildew *Botrytis Monilinia Anthracnose Greasy Spot Sclerotinia Alternaria Xanthomonas Pseudomonas Taphrina deformans Magnaporthe grisea and Erwinia*

Soil Treatment At Planting

Use at planting in-furrow seeding or transplant Apply 1-12 oz of Actinovate® Soluble in 10-200 gallons of water per acre Refer to the Crops On Which Actinovate® Soluble May Be Used section for crop-specific application rates

Soil Treatment Through Irrigation

Actinovate® Soluble may be used in drip overhead or other irrigation systems listed in the Chemigation section at any stage of plant growth as a soil treatment Apply 1-12 oz of Actinovate® Soluble in 10-200 gallons of water per acre See Chemigation section for additional information and Crops On Which Actinovate® Soluble May Be Applied section for crop-specific application rates

Seed Treatment

For treatment of all food, fiber, forestry, and ornamental seeds for greenhouse, nursery, or field production Seed Spray or Slurry Coating Apply this product through mist-type commercial seed treatment equipment slurry or other comparable methods that provide thorough coverage of treated seed Prior to planting dissolve 2-18 oz of Actinovate® Soluble in 4oz of water per acre of seed and spray directly on seed Hopper Box Dry Coating Apply directly to seed as a dry coating at a rate of 2-18 oz per acre of seed Apply as to insure even coating of product on seeds

(Note to Reviewer [bracketed text] is optional or alternate wording (parenthetical text) is informational)

Do not use treated seed for food or feed purposes or process for oil Treat only those seeds needed for immediate use minimizing the interval between treatment and planting Do not store excess treated seeds beyond planting time

Seed treatment on agricultural establishment in hopper-box planted box or other seed-treatment application at or immediately before planting is within the scope of WPS while commercial treatment of seeds in not within the scope

Foliar Treatment

Use 1-12 oz of Actinovate® Soluble in 10-150 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 Actinovate® Soluble can be used in all types of spray equipment including aerial applications

Avoiding spray drift at the application site is the responsibility of the applicator The interaction of many equipment and weather-related factors determines the potential for spray drift The applicator and grower/treatment coordinator are responsible for considering all of these factors when making decisions

If aerial application is desired mix appropriate amount of Actinovate® Soluble and water in tank Apply as a normal spray

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 of Actinovate® Soluble per 100-lbs of bulbs corms tubers rhizomes or seeds

Cutting or Bare Rooted Transplant Dip

Dip cuttings or transplants in Actinovate® Soluble dry powder or in a solution of 6-18-oz Actinovate® Soluble and 50 gallons water Let soak for up to three hours prior to planting Plant treated cuttings or transplants in potting mix or soil in the usual manner

Crops On Which Actinovate® Soluble May Be Used

Crops	Soil Drench Rate	Foliar Spray Rate
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Crops	Soil Drench Rate	Foliar Spray Rate
<p>Agronomic Field and Row Crops Wheat buckwheat cotton canola safflower sunflower succulent and dry peas peanuts soybeans and other agronomic field and row crops</p> <p>Alfalfa Hay and Forage Alfalfa clover vetch trefoil</p> <p>Small Grains rye rice sorghum millet and other small grains</p> <p>Corn Popcorn seed corn sweet corn and other corn crops</p>	<p>1-3 oz of Actinovate® Soluble per acre</p> <p>Applied in furrow</p>	<p>3-12 oz of Actinovate® Soluble per acre</p> <p>Reapply every 7-14 days</p> <p>For best results use with a spreader-sticker</p>
<p>Potatoes All types of Irish potatoes sweet potatoes and other potatoes</p>	<p>3-12 oz of Actinovate® Soluble per acre Applied in furrow over treated seed pieces or as a side dressing</p>	<p>3-12 oz of Actinovate® Soluble per acre</p> <p>Reapply every 7-14 days</p> <p>For best results use with a spreader-sticker</p>
<p>Cucurbit Vegetables cucumbers melons gourds squash cantaloupe and other cucurbits</p> <p>Fruiting Vegetables Eggplant sweet peppers hot peppers tomatoes tomatillos and other fruiting vegetables</p> <p>Herbs, Spices and Mints Sage rosemary thyme peppermint dill basil oregano and other herbs and spices</p> <p>Leafy Vegetables and Cole Crops Broccoli Brussels 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 edamame succulent and dry peas</p>	<p>3-12 oz of Actinovate® Soluble per acre</p>	<p>3-12 oz of Actinovate® Soluble per acre</p> <p>Reapply every 7-14 days</p> <p>For best results use with a spreader-sticker</p>
<p>Small Grains Rice*</p> <p>Root/Tuber and Bulb Crops Garlic onions sugarbeet carrot ginger ginseng horseradish turnip 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> <p>Strawberry</p>	<p>3-12 oz of Actinovate® Soluble per acre</p>	<p>3-12 oz of Actinovate® Soluble per acre</p> <p>Reapply every 7-14 days</p> <p>For best results use with a spreader-sticker</p>

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Crops	Soil Drench Rate	Foliar Spray Rate
<p>Asparagus</p> <p>Citrus Orange grapefruit lemon tangerine tangelo lime pummelo and other citrus crops</p> <p>Grape Wine grapes table grapes raisins and other grape crops</p> <p>Hops</p> <p>Pome Fruit Apple crabapple pear quince mayhaw and other pome fruit</p> <p>Stone Fruit Apricot cherry nectarine peach plum prune and other stone fruit</p> <p>Tree Nuts Almond pistachio pecan walnut filberts and other tree nuts</p> <p>Tropical Fruits Avocado mango papaya and other tropical fruits</p> <p>Bananas / Plantains</p> <p>Watercress*</p> <p>Mushrooms</p> <p>Ginseng</p> <p>Olives</p> <p>All Crops Grown For Seed</p>		

* Spray only when there is not standing water in bed

AGRICULTURE PRODUCTION – NEMATICIDE USE

Actinovate Soluble can be applied anytime during the crop life to control/suppress nematodes For best results apply Actinovate Soluble in three phases 1) To the soil prior to planting 2) To the soil at transplant or seeding and 3) Through irrigation or soil application throughout the season Refer to the Crops On Which Actinovate® Soluble May Be Used section for crop-specific application rates

Prior To Planting

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10-14 days prior to planting use 1-6 oz of Actinovate Soluble per acre as a soil treatment to the rows or beds to where the crop will be seeded or planted Reapply every 1-2 weeks prior to planting Product may be applied during tilling row preparation or to undisturbed ground

Soil Treatment Post-Plant

Use at planting and apply to transplant or in furrow to the seed Apply 1-6 oz of Actinovate® Soluble in 10-200 gallons of water per acre directly to the soil around the seed or transplant's root zone Reapply every 30-60 days throughout the crop growing season If pest pressure is evident reapply every 1-2 weeks until control is achieved

Soil Treatment Through Irrigation

Actinovate® Soluble may be used in drip overhead or other irrigation systems listed in the Chemigation section at any stage of plant growth as a soil treatment Apply 1-6 oz of Actinovate® Soluble in 10-200 gallons of water per acre directly to the root zone of the plant Reapply every 1-6 weeks See Chemigation section for additional information and Crops On Which Actinovate® Soluble May Be Applied section for crop-specific application rates

TURF GRASS AND TURF LANDSCAPE APPLICATIONS

For the prevention suppression and aiding in control of nematodes and landscape foliar and soil diseases (Powdery and Downy Mildew *Botrytis Rhizoctonia Fusarium Verticillium Pythium and Phytophthora*) and turf grass diseases (Brown Patch Take-all Patch *Pythium* blight Dollar Spot Powdery Mildew Rusts and Molds)

Application Uses

Actinovate® Soluble can be applied to turf grass including uses on golf courses sod farms home lawns home landscapes office buildings apartment complexes cemeteries sports fields and other such sites Actinovate® Soluble can also be applied to outdoor ornamental plants used for landscaping around homes buildings golf courses sports fields and cemeteries

APPLICATION INSTRUCTIONS

GOLF COURSE TEES, GREENS AND FAIRWAYS, COMMERCIAL AND RESIDENTIAL LAWNS, SOD FARMS, ATHLETIC FIELDS PARKS, CEMETERIES AND SIMILAR SITES

Soil Drench Application Mix Actinovate® Soluble with appropriate amount of water (2-4 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

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Apply maintenance applications of 18 oz per acre every 4 to 8 weeks through season or until soil temperatures reach 45°F or less If nematode pest pressure is evident reapply every 1 to 3 weeks until control is achieved

A soil surfactant is recommended to best move the solution to the root zone of the turf Consult manufacturer for product recommendations

Foliar Disease 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 1 25-oz of Actinovate® Soluble in 5 gallons of water per 1 000 sq ft of turf grass For maintenance application use 0 5-oz of Actinovate® Soluble in 5 gallons of water per 1 000 sq ft of turf

See application chart below for more detailed application instructions

**APPLICATION CHART FOR GOLF COURSE, (FAIRWAYS ROUGHS GREENS TEES)
COMMERCIAL, LAWNS RESIDENTIAL LAWNS, CEMETERIES, PARKS (AND SIMILAR SITES)
ATHLETIC FIELDS, SOD FARMS, SEED PRODUCTION, AND OTHER TURF**

Actinovate Soluble has no Pre-Harvest Interval Under moderate to severe disease pressure increase rates and reduce spray intervals or use in a tank mix or rotational program with other registered fungicides

Turf and grass type	Disease	Rate	Application Instructions
Bluegrass Bentgrass Bermuda grass (Common & Hybrid) Dichondra Fescue Orchard grass Poa Annua St Augustine Ryegrass Zoysia Mixtures and other grasses or ornamental turf	Brown patch <i>Rhizoctonia solani</i> Take All Patch <i>Gaeumannomyces graminis</i> Dollar Spot <i>Lanzia spp</i> <i>Moellerodiscus spp</i> (formerly <i>Sclerotinia homeocarpa</i>) Powdery Mildew <i>Erysiphe graminis</i> Rust <i>Puccinia spp</i> Anthracnose <i>Colletotrichum graminicola</i> Grey Leaf Spot <i>Pyricularia</i>	18-54 oz/acre (12-36 grams per 1 000 sq ft)	Drench Applications Mix 18-54 oz Actinovate® Soluble with appropriate amount of water (100-150 gallons per acre) Consider use of a soil surfactant to best move the solution to the root zone of the turf Consult manufacturer for product suggestions <i>Initial Application or Problem Areas</i> Apply at a rate of 54 oz of Actinovate® Soluble per acre of turf grass when soil temperatures are above 45°F <i>Maintenance</i> Apply at a rate of 18 oz of Actinovate® Soluble per acre of turf grass every 7-24 days through season or until soil temperatures reach 45°F or less Spray Applications Mix 18-54 oz of Actinovate® Soluble with appropriate amount of water (50-150 gallons per acre of turf grass) Apply at <i>initial application or maintenance rates</i> as above in early morning or evening on wet turf Water in immediately after application with sprinklers for 3-6 minutes Consider use of a soil surfactant to best move the solution to the root zone of the turf Consult manufacturer for product suggestions Continue applications at 7-24 day intervals through

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	<p><i>gnsea</i> Slime Molds <i>Mucilaga</i> <i>and Physarum</i> Gray snow mold (<i>Typhula</i> <i>spp</i>) Pink snow mold (<i>Microdochium</i> <i>nivale</i>)</p>		<p>season or until soil temperatures fall to 45°F or lower</p> <p><u>For Smaller Quantities</u> <i>Initial Application or Problem Areas</i> Use 1 25 oz (36 grams) of Actinovate® Soluble in 5 gallons of water per 1 000 sq ft of turf grass <i>Maintenance</i> Use 0.5 oz (14 grams) of Actinovate® Soluble in 5 gallons of water per 1 000 sq ft of turf grass Consider use of a soil surfactant to best move the solution to the root zone of the turf Consult manufacturer for product suggestions Continue applications at 7-24 day intervals through season or until soil temperatures fall to 45°F or lower</p>
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LANDSCAPE (ORNAMENTALS, VEGETABLE GARDENS, GARDEN FRUIT TREES) AND INTERIORSCAPES

For the prevention suppression and aiding in control of nematodes and diseases (Powdery and Downy Mildew *Botrytis Rhizoctonia Fusarium Verticillium Pythium and Phytophthora*) and turf grass diseases (Brown Patch Take-all Patch *Pythium* blight Dollar Spot Powdery Mildew Rusts and Molds)

For Root Diseases and Root Damaging Nematodes in Transplants, Installations and Established Plants Dissolve 1-2 teaspoons per 2 gallons of water to create a solution Apply solution to soil around plants root system until soil is saturated without creating a run-off Apply to plant before during or after transplant

For Foliar Diseases Dissolve 1-2 teaspoons per 2 gallons of water and apply in order to acquire thorough uniform coverage See application chart below for more detailed application instructions

APPLICATION CHART FOR SOIL DRENCH & FOLIAR SPRAY ON LANDSCAPE & INTERIORSCAPES

Actinovate Soluble has no Pre-Harvest Interval

Under moderate to severe disease pressure increase rates and reduce spray intervals or use Actinovate Soluble in a tank mix or rotational program with other registered fungicides

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Crops	Foliar Disease	Soil Diseases	Rate	Application Instructions
<p>Interiorscape plants and trees</p> <p>Outdoor landscape ornamental plants, fruit trees, and vegetable gardens</p>	<p>Black spot of rose <i>Diplocarpon rosea</i></p> <p>Botrytis <i>Botrytis cinerea</i></p> <p>Downy Mildew <i>Peronospora</i> spp</p> <p>Leaf spots <i>Alternaria</i> spp</p> <p>Powdery mildew <i>Erysiphe</i> spp <i>Oidium</i> spp <i>Podosphaera</i> spp <i>Sphaerotheca</i> spp</p> <p>Phytophthora spp</p> <p>Rust <i>Puccinia</i> spp</p> <p>Fireblight <i>Erwinia</i></p>	<p>Pythium spp</p> <p>Phytophthora spp</p> <p>Fusarium spp</p> <p>Rhizoctonia spp</p> <p>Theleliopsis spp</p> <p>Verticillium spp</p> <p>Sclerotinia</p>	<p>3-12 oz/100 gal (1-2 tsp /2 gal)</p>	<p>Foliar Spray Apply Actinovate Soluble at rates ranging from 3-12 oz of product in 100 gallons of water per acre Make applications on a 3 to 14-day schedule Begin applications when conditions favor disease development prior to the onset of disease</p> <p>When conditions favor severe disease development shorten the spray interval or use a higher rate Spray plants thoroughly wet to run off</p> <p>Soil Application Apply Actinovate Soluble at rates ranging from 4-6 oz of product in 100 gallons of water Apply as a soil drench to base of plant and/or root ball until soil is saturated without run-off Reapply every 4-12 weeks depending on disease pressure</p>

[GREENHOUSE AND NURSERY] [TURF] [GOLF COURSE] [FIELD] CHEMIGATION

General Requirements

- Apply Actinovate® Soluble at 1-12 oz per 10-200 gallons of water depending on desired application
- Apply Actinovate® Soluble only through 1) overhead boom and mist-type systems 2) sprinklers such as impact or micro-sprinklers central pivot lateral move end tow side wheel roll traveler solid set or hand-move systems 3) pressurized drench (flood) or drip (trickle) systems 4) micro irrigation such as spaghetti tube or individual tube irrigation 5) hand-held calibrated irrigation equipment such as hand-held wand with injector and 6) 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
- If you have questions about calibration you should contact State Extension

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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

Requirements for Chemigation Systems Connected to Public Water Systems

- 1) 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
- 2) Chemigation systems connected to public water systems must contain a functional reduced-pressure zone back flow 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 There shall be a complete physical break (air gap) between the flow 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
- 3) The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection
- 4) 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
- 5) 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
- 6) 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
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment
- 8) Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it
- 9) Application of the product may be made continuously for the duration of the water application or can be applied at the end or after the water application

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- 10) To mix in supply tank fill tank half way with water and add product Stir until completely dissolved Fill tank with remaining amount of water
- 11) Use product with 10-200 gallons of water per acre Use enough water so as not to create excessive leaching or run off

Sprinkler Chemigation Requirements

- 1) 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
- 2) The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump
- 3) 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
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops
- 5) 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
- 6) 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
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment
- 8) Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it
- 9) Application of the product may be made continuously for the duration of the water application or can be applied at the end or after the water application
- 10) To mix in supply tank fill tank half way with water and add product Stir until completely dissolved Fill tank with remaining amount of water
- 11) Use product with 10-200 gallons of water per acre Use enough water so as not to create excessive leaching or run off

(Note to Reviewer [bracketed text] is optional or alternate wording, (parenthetical text) is informational)

Drip Chemigation Requirements

- 1) 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
- 2) The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump
- 3) 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
- 4) The system must contain functional inter-locking controls to automatically shut off the pesticide injection pump when the water pump motor stops
- 5) 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
- 6) 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
- 7) Use of a supply tank is recommended. Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it.
- 8) Application of the product may be made continuously for the duration of the water application or can be applied at the end or after the water application
- 9) To mix in supply tank fill tank half way with water and add product. Stir until completely dissolved. Fill tank with remaining amount of water
- 10) Use product with 10-200 gallons of water per acre. Use enough water so as not to create excessive leaching or run off

Flood Chemigation Requirements

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops
- 2) Systems utilizing a pressurized water and pesticide injection system must meet the following requirements
 - a) 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

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- b The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump
 - c 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
 - d The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops
 - e 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
 - f 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
- 3) Use of a supply tank is recommended. Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it
 - 4) Application of the product may be made continuously for the duration of the water application or can be applied at the end or after the water application
 - 5) To mix in supply tank fill tank half way with water and add product. Stir until completely dissolved. Fill tank with remaining amount of water
 - 6) Use product with 10-200 gallons of water per acre. Use enough water so as not to create excessive leaching or run off

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STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage and 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 To avoid wastes use all material in this container by application according to label directions If wastes cannot be avoided offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments by industry)

Container Handling Non-refillable container Do not reuse or refill this container

Completely empty [liner] [bag] by shaking and tapping sides and bottom to loosen clinging particles Empty residue into application equipment Then offer for recycling if available or dispose of in a sanitary landfill or by incineration If [drum] [pail] is contaminated and cannot be reused dispose of it in the manner required for its [liner] [bag] (OR)

Completely empty bag into application equipment then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration (OR)

Clean container promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or mix tank Fill the container ¼ full with water and recap Shake for 10 seconds Pour rinsate into application equipment or mix tank or store rinsate for late use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration (OR)

Clean container promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or mix tank Fill the container ¼ full with water Replace and tighten closures Tip container on its side and roll it back and forth ensuring at least one complete revolution for 30 seconds Stand the container on its end and tip it back and forth several times Turn the container over onto its other end and tip it back and forth several times Pour rinsate into application equipment or mix tank or store rinsate for late use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration

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LIMITED WARRANTY/DISCLAIMER

Seller warrants that this product complies with the specifications expressed on this label. To the extent consistent with applicable law, Seller makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for the intended purpose. To the extent consistent with applicable law, Seller's liability for default, breach or failure under this law shall be limited to the amount of the purchase price. To the extent consistent with applicable law, Seller shall have no liability for consequential damages.

[Best if Used by] [Use By]

[LOT] [Batch] [No] [NUMB]

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Sublabel B Residential Home & Garden Use

(FRONT PANEL)

ACTINOVATE® SOLUBLE

(ALTERNATE BRAND NAME ACTINOVATE® FOR LAWN AND GARDEN, ACTINOVATE® LAWN AND GARDEN)

ACTIVE INGREDIENT

Streptomyces lydicus WYEC 108* 00 0371%

OTHER INGREDIENTS 99 9629%

TOTAL 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](http://www.aapfco.org/metals.htm)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See [back] [side] [other] panel for [first aid] [additional precautionary statements] [and directions for use]

US Patent Number 5 403 584

EPA Reg No 73314-1

EPA Establishment No 73314-TX-001

Manufactured by

Natural Industries Inc

12320 Cutten Road

Spring Texas 77066

Questions? (888) 261-4731

Net Contents

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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals CAUTION Avoid contact with skin eyes or clothing
Avoid breathing dust or spray mist Wash thoroughly with soap and water after handling and before
eating drinking chewing gum using tobacco or using the toilet Remove and wash contaminated
clothing before reuse

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

Environmental Hazards To protect the environment do not allow pesticide to enter or run off into storm
drains drainage ditches gutters or surface waters Applying this product in calm weather when rain is
not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off
the treatment area Rinsing application equipment over the treated area will help avoid run off to water
bodies or drainage systems

DIRECTIONS FOR USE

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

PRODUCT 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 homes greenhouses and home landscapes

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 will have a robust and
protected root system

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DISEASES CONTROLLED/SUPPRESSED

Soil Diseases (When applied as a drench) (When watered in)

*Root Rot and Damping Off in ornamentals & vegetables

(*Pythium Phytophthora Rhizoctonia Fusarium* et al)

*Turf Brownpatch (*Rhizoctonia*)

*Turf Dollarspot (*Sclerotinia*)

*Turf Take-all Patch (*Gaeumannomyces graminis*)

Club Root (*Plasmodiophora brassicae*)

Gray Snow mold (*Typhula spp*)

Pink Snow mold (*Microdocium nivale*)

Foliar Diseases (When applied as a spray) (When sprayed)

*Powdery and Downy Mildew

*Grey Mold (*Botrytis*)

*Black Spot (*Diplocarpon rosae*)

*Leaf Spots and Rusts

*Fire Blight (*Erwinia*)

Walnut Blight (*Xanthomonas arboricola* pv *juglandis*)

Bacterial Spot (*Xanthomonas perforans*)

Citrus Canker (*Xanthomonas axonopodis* pv *citri*)

Bacterial Blast (*Pseudomonas syringae*)

Peach Leaf Curl (*Taphrina deformans*)

APPLICATION DIRECTIONS (HOW TO APPLY)

SOIL APPLICATION

Dissolve 1-2 teaspoons (4-8 grams) of Actinovate® Soluble per 2 gallons of water to create a solution

For more severe disease pressure or likelihood of disease pressure use higher label rate 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 Apply Actinovate® Soluble at any stage of the crop life For best results apply as early as possible such as at seeding transplant or potting stage Reapply every 2-12 weeks as needed Apply product with watering can hose-end sprayer or similar devices

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FOLIAR SPRAY

Dissolve 1-2 teaspoons (4-8 grams) of Actinovate® Soluble per 2 gallons of water to create solution. For more severe disease pressure or likelihood of disease pressure use higher rates. 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 suggestions. (Examples of spreader-stickers include Weather Shield®, Agri-2®, Plant Camel® and yucca extract.)

HYDROPONICS AND INDOOR GARDEN USE

For Root Rot Diseases

Dissolve Actinovate Soluble directly into nutrient water tank. Use ½ -1 teaspoon per gallon (6-12 oz per 100 gallons). Reapply each time nutrient water is changed. Actinovate Soluble may also be applied to each plant's root system individually. To do this dissolve ½ -1 teaspoon into a gallon of water to create solution. Apply solution as a watering directly to the plant's base so as to water in to the roots. Reapply every 2-6 weeks.

For Foliar Diseases

Use as directed under above section titled Foliar Spray.

LAWN TREATMENT

Use direct watering a Pump-Up Sprayer or Hose-End Sprayer to apply solution until soil is saturated. Reapply at maintenance rate every 4-8 weeks. For best results use a wetting agent such as yucca extract, Coco-Wet®, Plant Camel® 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 suggestions.

Direct Lawn Watering

Mix 10 teaspoons of product in 5 gallons of water and apply to 1,000 sq ft of lawn. Thoroughly soak turf so as to move the solution to the root system. Avoid excess run-off or leaching.

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Pump-Up Sprayer Lawn Application

Initial Application Mix 2 teaspoons Actinovate® Soluble per gallon of water to create spray solution Apply spray solution at 1 gallon per 200 sq ft of lawn Thoroughly soak turf so as to move the solution to the root system Avoid excess run-off or leaching

Maintenance Application Use 0.5 teaspoons Actinovate® Soluble per gallon of water to create spray solution Apply spray solution at 1 gallon per 200 sq ft of lawn Thoroughly soak turf so as to move the solution to the root system Avoid excess run-off or leaching

HOSE-END SPRAYER SETTINGS FOR LAWNS

Make a liquid concentrate from the Actinovate® Soluble powder as follows

Initial Application

Area Covered	Actinovate®	Water	Hose-end Setting
200 sq ft	2 tsp	4 oz	4 oz
1 000 sq ft	9 tsp	20 oz	4 oz

Maintenance Application

Area Covered	Actinovate®	Water	Hose-end Setting
200 sq ft	0.5 tsp	4 oz	4 oz
1 000 sq ft	3 tsp	20 oz	4 oz

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

PESTICIDE STORAGE Store in a dry cool area inaccessible to children and out of direct sunlight and away from heat sources Keep from overheating and freezing Optimum storage temperature is 40°F to 85°F

PESTICIDE DISPOSAL AND CONTAINER HANDLING Nonrefillable container Do not reuse or refill this container **If empty** Place in trash or offer for recycling if available **If partly filled** Call your local solid waste agency or (800) 858-7378 (National Pesticide Information Center) for disposal instructions Never place unused product down any indoor or outdoor drain

LIMITED WARRANTY/DISCLAIMER

Seller warrants that this product complies with the specifications expressed on this label To the extent consistent with applicable law Seller makes no other warranties and disclaims all other warranties express or implied including but not limited to warranties of merchantability and fitness for the intended purpose To the extent consistent with applicable law Sellers liability for default breach or failure under

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this law shall be limited to the amount of the purchase price To the extent consistent with applicable law
Seller shall have no liability for consequential damages

[Best if Used by] [Use By]

[LOT] [Batch] [No] [NUMB]

OPTIONAL LABEL CLAIMS

- Biological Fungus Control
- For Use In Organic Farming
- For Organic Production
- For Organic Gardening
- For Organic Lawn Care
- For Use in Organic Production
- Biological Fungicide
- Controls soil-borne plant diseases such as *Pythium Rhizoctonia Phytophthora Verticillium and Fusarium*
- 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 Brown Patch Dollar Spot and Take-all Patch
- Use on Roses Vegetables Fruits Flowering Plants Trees and Shrubs
- Fungicide that attacks harmful garden diseases
- Controls/Suppresses foliar diseases such as Powdery Mildew Rust Grey Mold Black Spot and Botrytis
- Controls Damping Off and Root Rot
- 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
- Easy tear opening
- Concentrated Powder

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- Re-Sealable [pouch] [bag]
- For use with [hose-end] [sprayer] [pump up sprayer] [water can]
- Fight lawn & garden diseases such as Summer patch dollar spot damping off and root rot
- For use on turfgrass and outdoor ornamental plants interiorscapes and gardens on or around sites such as golf courses residential & commercial lawns athletic fields parks cemeteries sod farms and similar locations
- Controls/suppresses soil-borne plant diseases such as root rots Damping Off Brown Patch Summer Patch and Dollar Spot
- For use on all major agricultural crops including alfalfa (hay forage) bean (all types) cereals corn (all types) oilseeds (canola sunflower safflower peanut etc) peanut peas (dry fresh sweet) potato soybean and sugarbeet
- Controls/suppresses soil-borne plant diseases damping-off and root diseases caused by *Pythium Rhizoctonia Phytophthora Sclerotinia Verticillium Fusarium* when applied according to label directions
- Controls/Suppresses Foliar Disease such as Powdery Mildew Downy Mildew *Botrytis Sclerotinia Monilinia Alternaria Erwinia* when applied according to label directions
- 100% water soluble formula
- For Suppression of Walnut Blight (*Xanthomonas arboricola pv Juglandis*) Bacterial Spot (*Xanthomonas perforans*) Citrus Canker (*Xanthomonas axonopodis pv citri*) Club Root (*Plasmodiophora brassicae*)
- Biological Nematicide
- Actinovate Soluble is approved for organic use under the guidelines of the USDA
- NOP logo

