ACTIVE INGREDIENT:                           % By Wt.
Pythium oligandrum DV 74* .......................................................... 1%
OTHER INGREDIENTS ........................................................................... 99%
TOTAL  100%

* Contains no less than 1 X 10^5 cfu/gram

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID
If in eyes
• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
• Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
You may also contact 1-888-478-0798 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS
CAUTION
Causes moderate eye irritation.  Avoid contact with eyes or clothing. 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
• waterproof gloves
• 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 the manufacturer's instructions for cleaning / maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS
Users should:
• Remove clothing/PPE immediately if pesticides gets inside. Then wash thoroughly and put on clean clothing.
• Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS
For terrestrial uses:  Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when disposing of equipment washwaters or rinsate.
**AGRICULTURAL USE REQUIREMENTS**

**GENERAL INFORMATION**

Polyversum® is for the stimulation of plant growth**, the enhancement of plant strength** and the prevention of fungal attack. Polyversum® mobilizes the plant defense mechanisms, increasing plant resistance to pathogenic fungal attack, increasing rate of growth** and increasing overall crop strength and yield.**

Polyversum® is a microbial preparation that protects crops against soilborne fungal pathogens, promotes plant growth**, enhances plant strength**, and induces a plant defense reaction against soil and airborne pathogenic fungi.

Polyversum® can be applied as a seed dressing, pre-plant soak, overhead spray or soil drench, or irrigation application.

**Mode of Action:** The active ingredient Pythium oligandrum DV 74, colonizes the rhizosphere of treated plants. Because of its strong mycoparasitic and competitive abilities, the active ingredient suppresses the growth and antagonistic effects of many soilborne pathogenic fungi, which cause damping-off and seed, and root rots such as Phytophthora, Rhizoctonia, Fusarium spp., etc. The active ingredient also induces a defense reaction in the newly emerged plant through the stimulation of phytohormones that trigger the plant’s resistance mechanisms against diseases. *Pythium oligandrum* DV 74 does not produce any antibiotics and therefore is considered a true plant growth promoter** for the induction of plant resistance.

**PRE-HARVEST INTERVAL**

Polyversum® can be applied up to and including the day of harvest.

**MIXING INSTRUCTIONS**

**MIXING:** Dilute Polyversum® with water and apply using conventional ground spray equipment. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of Polyversum® to the tank. Finish filling the tank to the desired volume to obtain the proper spray concentration. Maintain agitation continuously while spraying. Use spray mixture within two hours of mixing. Do not allow spray mixture to stand overnight or for prolonged periods. Use large spray nozzles. For seed dressing applications, use undiluted Polyversum®.

**COMPATABILITY:** Do not mix Polyversum® with chemical fungicides. Consult other product's labels for additional information or restrictions concerning tank mixing. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Polyversum® has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations is not feasible. Prior to treating entire crop, test a small portion of the crop. Consult your Gowan Company representative for more information on Polyversum® compatibility with pesticides, surfactants and fertilizers.

**APPLICATION SITES**

Use Polyversum® on the following agricultural commodities and horticultural crops:

**Fruiting Vegetables:** eggplant, pepper and tomato.

**Leafy Vegetables:** asparagus, broccoli, cabbage, celery, collards, lettuce and spinach.

**Cucurbit Vegetables:** cantaloupe, cucumber, melon, squash, watermelon and zucchini.

**Legume Crops:** field beans, lentils, peas, peanuts, and soybeans.

**Root, Bulb, and Tuber Crops:** beets, carrots, cassava, garlic, ginger, leeks, onions, potatoes, radish, sugar beets, sweet potatoes and yams.

**Grain, Forage, Fiber and Oil Crops:** alfalfa, barley, canola, corn, cotton, hops, millet, oats, rice, rye, sesame, sorghum, sunflower, and wheat.

**Vine Crops:** grapes, kiwi and passion fruit.

**Tropical Crops:** avocado, banana, cocoa, coffee, guava, lychee nuts, mango, papaya, pineapple and plantain.
Tree Fruit Crops: grapefruit, kumquat, lemon, lime, mandarin tangerine, orange, pummel, apple, pear, apricot, cherry, nectarine, peach, plum and prune.

Berry Crops: blueberry, gooseberry, raspberry and strawberry.

Ornamental Plants grown in greenhouses and nurseries: African violet, begonia, bougainvillea, cacti, calla lily, chrysanthemum, cineraria, cyclamen, daffodil, dahlia, excum, ferns, foliage plants, fuchsia, geranium, gerbera, gloxinia, hibiscus, holiday cactus, hyacinth, hosta, iris, ivy, kalanchoe, lily, lisanthius, miniature roses, orchid, peony, phlox, and poinsettia.

Ornamental Trees and Shrubs grown in greenhouses and nurseries: alder, apple, azalea, beech, birch, blue spruce, boxwood, camellia, cedar, crabapple, cypress, dogwood, elm, ficus, fir, flowering cherry, flowering peach, eucalyptus, forsythia, gardenia, hackberry, holly, hydrangea, larch, laurel, lilac, magnolia, maple, myrtles, oak, palms, pear, pines, poplar, privet, pyracantha, rose, rhododendron, spruce, sycamore, thuia and willow.

Bedding Plants grown in greenhouses and nurseries: astor, calendula, camation, cosmos, impatiens, lobelia, marigold, nasturtium, pansy, periwinkle, petunia, snapdragon, sweet alyssum, verbena and zinnia.

Turf Grass on sod farms: bentgrass, Bermuda grass, bluegrass, centipede grass, fescue, ryegrass, and St. Augustine.

Use Polversum® to suppress / control the growth of plant diseases such as: Alternaria spp., Ascochyta spp., Botrytis cinerea, Fusarium spp., Peronosplasmapara spp., Phoma spp., Phytophthora infestans, Plasmapara viticola, Puccinia spp., Pythium spp., Rhiococnia solani, Sclerotinia sclerotiorum, Unicula necator, Verticillium spp.

APPLICATION INSTRUCTIONS

Make applications before planting and in the early stages of plant growth for control of pathogens in the soil. Reapply at 14-day intervals or per specific label directions as needed throughout the growing season for preventative control. Early treatment prevents diseases from developing.

SEED DRESSING: Use Polversum® to protect seeds from pathogenic organisms. Shake the container of Polversum® well before use as a seed dressing. Seeds with a rough texture can be dusted with or rolled in Polversum®. Excess material can be removed through a sieve.

PRE-PLANT SOAK: Use Polversum® to prevent damping-off, seed rots and plant and cutting diseases on seeds, seedlings, bulbs, transplants or cuttings prior to planting. Soak seeds, bulbs, cuttings, seedlings and plants for up to thirty minutes in a suspension of Polversum®. Prepare enough solution to ensure thorough coverage.

IRRIGATION APPLICATION: Refer to the Chemigation section of this label for complete details on application through irrigation systems. Apply through a drip (trickle) or sprinkler system only. Apply Polversum® at 14-day intervals or as needed throughout the growing season.

OVERHEAD SPRAY OR SOIL DRENCH: Apply Polversum® using conventional equipment as a root and stem spray or drench to the point of saturation. Good coverage and wetting is required. Use large spray nozzles. The amount of spray solution to apply will vary depending on the type of crop. Most row crops will require up to 100 gallons of spray per acre. Prepare enough solution based on plant density and soil conditions to ensure thorough coverage. Reapply at 14-day intervals or per specific label directions as needed throughout the growing season for preventative control.

APPLICATION RATES

Apply Polversum® as a seed dressing, as a pre-plant soak, and at least twice as a field spray after germination or planting.

SEED DRESSING: Apply Polversum® as a seed dressing at a rate of 0.1 - 3 oz. per 60-100 lbs. seed weight unless specified below for a specific crop. Seeds with a smooth surface should be moistened prior to application to improve adhesion. Immediately plant moistened, treated seeds. For dry treated seeds, plant seeds shortly after dressing.

Barley, Rye, Soybean and Wheat - For wet dressing, apply Polversum® at a rate of 17.5 oz. in 1 - 3 gallons of water / ton seed. Plant seeds immediately after dressing.

Potatoes - Apply Polversum® at a rate of 1 oz. / ton seed or bulbs. Plant shortly after dressing.

Garlic bulbs - Apply Polversum® as a bulb dressing at 1.1 lbs. / half-ton of bulbs.

Onion & leek bulbs - Apply Polversum® as a bulb dressing at 0.5 lbs. / ton of bulbs.

PRE-PLANT SOAK: Apply Polversum® as a pre-plant soak at a rate of 0.2 oz. / 3 gallons of water unless otherwise noted. Soak seeds, seedlings, bulbs, transplants or cuttings for 30 minutes. Immediately plant treated seeds and bulbs. Once planted, use remaining suspension as a stem and root drench.

Strawberry - Apply Polversum® at a rate of 0.08 oz. / 1 gallon of water.

OVERHEAD SPRAY OR SOIL DRENCH

Apply Polversum® at a rate of 1.5 - 3 oz. /acre in sufficient water to ensure thorough coverage. Apply 1st application 14 days after planting. Make repeat applications at 14-day intervals throughout the growing season. For overhead spray or soil drench rates specific to a given crop, see the table below. If your crop is not listed below, follow general directions above.
### SPECIFIC CROP APPLICATION RATES

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<th>CROPS</th>
<th>OZ/ACRE</th>
<th>NOTES</th>
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| Barely Rye Wheat    | 1.5 – 3 | For winter cereals:  
Apply 1st application in the autumn when the soil temperature is 10°C (50°F) or greater. Apply 2nd application in the spring when the soil temperature is 10°C (50°F) or greater. Apply 3rd application 30 days after spring application.  
For spring cereals:  
Apply 1st application in the spring when the soil temperature is 10°C (50°F) or greater. Apply 2nd application 30 days after spring application. |
| Canola Corn Sunflower | 1.5 – 3 | For canola:  
Apply 1st application in the autumn after shoot emergence. Apply 2nd application in the spring when the soil temperature is 10°C (50°C) or greater. Apply 3rd application 30 days after spring application.  
For corn and sunflower:  
Apply 1st application at the time of three true leaves. Apply 2nd application 30 days later. |
| Hops                | 1.5 – 3 | Apply 1st application at the beginning of vegetation growth. Make repeat applications at 14 day intervals throughout the growing season. |
| Soybeans            | 1.5 – 3 | Apply 1st application in the spring when the soil temperature is 10°C (50°F) or greater. Apply 2nd application 30 days after spring application. |
| Potatoes            | 1.5 – 3 | Apply 1st application when plants are 10 cm (4 in.) high. Apply 2nd application 14 days later. Continue applications at 14 day intervals throughout growing season. |
| Grapes              | 1.5 – 3 | Apply 1st application one week after cotyledon emergence. Make repeat applications at 14 day intervals throughout the growing season. |
| Beets               | 1.5 – 3 | Apply 1st application one week after cotyledon emergence. Make repeat applications at 21 day intervals throughout the growing season. |
| Garlic Onions Leeks  | 1.5 – 3 | Apply 1st application one week after cotyledon emergence. Make repeat applications at 14 day intervals throughout the growing season. |
| Ornamental Plants Bedding Plants | 1.5 – 3 | Apply 1st application one week after cotyledon emergence. Make repeat applications at 14 day intervals throughout the growing season. |
| Ornamental Trees    | 1.5 – 3 | Apply 1st application one week after cotyledon emergence. Make repeat applications at 14 day intervals throughout the growing season. |
| Turf Grass on Sod Farms | 1.5 – 3 | Make 1st application at the start of the growing season. Make 2nd application 14 days later. Make repeat applications at 30-day intervals throughout the growing season. |

### CHEMIGATION

**General Requirements**

1. Apply this product only through a drip (trickle) system or sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move) irrigation systems. Do not apply this product through any other type of irrigation system.

2. Crop injury or lack of effectiveness in the crop can result from non-uniform distribution of treated water.

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

4. 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.

5. 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.

**Specific 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, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

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

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.
Specific Requirements for Drip (Trickle) Chemigation
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 backflow.
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 filled with a system interlock.

Specific Requirements for Sprinkler Chemigation
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 backflow.
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 filled with a system interlock.

Application Instructions
1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
2) Determine the treatment rates as indicated in the directions for use and make proper dilutions. Product can be applied continuously or at any time during the water application.
3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.

Storage and Disposal
Do not contaminate water, food, or feed by storage or disposal.
PESTICIDE STORAGE: Store in a cool, dry place. Store in original container only. Keep container tightly closed when not in use.
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 or by industry).
CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300
For other product information, contact Gowan Company or see Material Safety Data Sheet.

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS
Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. All such risks shall be assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY’S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY’S SOLE DISCRETION.

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