86729-1

3/21/2011



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON D.C., 20460

> OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Keller and Heckman LLP c/o for Growing Alternative 1001 G Street, N.W. Washington, DC 20001

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Attention: John Dubek Regulatory Specialist

Subject: PERpose Plus<sup>™</sup> EPA Reg. No. 86729-1 Amendment Application Date: December 20, 2010 EPA Received Date: December 21, 2010

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. The Agency has no objections to clarifying certain language on your label. A stamped label is enclosed for your records.

If you have any questions concerning this letter, please contact Demson Fuller at (703) 308-8062.

Sincerely,

Marshall Swindell

Product Manager (33) Regulatory Management Branch 1 Antimicrobials Division (7510C)

# **PERpose Plus<sup>TM</sup>**

# Broad Spectrum Algaecide and Fungicide

For use in Horticulture, Agriculture, and Natural Turf Industries

PERpose Plus<sup>™</sup>, Algaecide and Fungicide is a treatment for the prevention and suppression/control of horticultural and agricultural diseases in commercial greenhouses, garden centers, landscapes, agricultural crops, nurseries, interiorscapes and professional turf care.

ACTIVE INGREDIENT:	86
Hydrogen Peroxide/Hydrogen Dioxide	
INERT INGREDIENTS:	
Total	100.00%

Keep Out of Reach of Children

# **DANGER-PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaile. (If you do not understand this label, find someone to explain it to you in detail.)

	FIRST AID
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> </ul>
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue</li> </ul>
	rinsing eye.
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or	<ul> <li>Take off contaminated clothing.</li> </ul>
clothing:	<ul> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> </ul>
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice</li> </ul>
	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or</li> </ul>
	doctor.
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
Have th	e product container or label with you when calling a poison control center
or doctor, or go:	ing for treatment. To contact a regional poison center call 1-800-2/2-1212.
IN EMERGENCI	ES CALL CHEMTREC: (800) 424-9300

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# PRECAUTIONARY STATEMENTS

# HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. **PERpose Plus<sup>TM</sup>** may be fatal if absorbed through the skin. Do not get in eyes, on skin or clothing. Do not breath vapor from concentrate. Wear protective eyewear (goggles, face shield, or safety glasses). Wear coveralls, over long sleeved shirt and long pants, socks, chemical-resistant footwear and chemical test stant gloves Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

# ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds, mammals, fish and aquatic life. Do not discharge effluent containing this 86729-1 product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. This product is highly toxic to bees and other beneficial insects exposed to direct contact on blooming crops or weeds. Do not apply this product or allow it to drift to crops where beneficial insects are part of an Integrated Pest Management strategy.

# PHYSICAL AND CHEMICAL HAZARDS

**PERpose Plus<sup>TM</sup>** is a strong oxidizing agent. Mix only with water. **PERpose Plus<sup>TM</sup>** is not combustible; however, at temperatures exceeding 156°F, decomposition releases oxygen. The oxygen released could initiate or promote combustion of other materials.

**Procedure for Leak or Spill** - Stop leak if this can be done without risk. Shut off ignition sources; no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material should not enter confined spaces

# **Personal Protective Equipment (PPE)**

Applicators and handlers must wear coveralls over long-sleeved shirt, long pants and chemical resistant foot wear, plus socks. When mixing and loading, wear a chemical resistant apron. For overhead exposure, wear chemical-resistant headgear. Also, wear protective eyewear (goggles, face shield, or safety glasses), and chemical resistant gloves. When cleaning equipment, wear a chemical resistant apron. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist fcr washables, use detergent and hot water.

# **User Safety Recommendations**

User should wash hands thoroughly with soap and water before eating, drinking, using tobacco, or using the toilet.

Users should remove clothing immediately if contaminated by pesticide. 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.

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# **DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with 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 the 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 (REI). The requirements in this paragraph apply to the uses of this product that are covered by the Worker Protection Standard.

Except as indicated below, there is a restricted entry interval (REI) of zero (0) hours for PERpose  $Plus^{TM}$ .

For interior fogging and spraying applications, there is a restricted entry interval of one (1) hour.

For field applications, do not allow reentry until sprays have dried.

Early reentry requires coveralls over long-sleeved shirt and pants, shoes with socks and waterproof gloves.

# **Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (30CFR 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.

# <u>PERpose Plus™ Algaecide and Fungicide is a treatment for the prevention and suppression/control</u> of Horticultural, Agricultural and Turf diseases, in the following locations:

Commercial	Garden centers	Nurseries	Professional turf	Interiorscapes
greenhouses			care	
Orchards	Field crops	Vineyards	Groves	Landscapes

# PERpose Plus<sup>™</sup> Algaecide and Fungicide Treats, Controls and Prevents the following diseases:

Algae	Aphanomyces	Anthracnose	Alternaria
Downy Mildew	Botrytis (grey mold)	Black Spot	Fusarium (root rot)
Erwinia	Phytophthora (blights,	Leaf Spot	Powdery Mildew
	rots)	ACCEPT	
Plasmopara	Pythium	Pseudomonas MAB 2.1 2011	Rust
Smut	Scab	Rhizodtonia 2 1 2011	Xanthomonas
Wilts & Blights	Thielaviopsis	Uncinula (powdery mildew)	Sclerotinia
		fluter fin flateri irazisii. : flataricilo <i>l</i> at. ar recenta, s	n die
		10-124 The International Contraction	1-1

# PERpose Plus<sup>TM</sup> Algaecide and Fungicide may be used on:

Ornamentals and	Nursery stock	Seeds and seedbeds	Seedlings
Agriculture crops, including	Trees	Poinsettias	Roses
vegetable crops, fruit crops,			
tobacco, etc			
Turf	Cut flowers-	-Flowering-plants	Cuttings
Bedding plant	ts	Bab	CCEPTED

# **Compatibility**

It is advisable to test a small sample of **PERpose Plus<sup>™</sup>** on plants prior to treating targe numbers, as not all plant species have been tested.

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# Reference regarding usage rates for both Horticulture and Agriculture Applications

The rates listed for application of **PERpose Plus<sup>TM</sup>**, are universal for both agriculture and horticulture use. The rates using **PERpose Plus<sup>TM</sup>** for curative results are 1:100, or1fl. oz. per gallon of clean water and 1/3 -1/4 fl. oz. per gallon of clean water used as a weekly preventative rate.

# Using PERpose Plus<sup>TM</sup> for curative measures

When using **PERpose Plus<sup>TM</sup>** curative rates, apply for 3 consecutive days drenching the entire plant, including leaves, stems stalks and the soil surface to saturation. Afterward, maintain with the preventative rate on a weekly basis for best results.

# **PERpose Plus<sup>™</sup> Algaecide and Fungicide** may be used on:

Ornamentals and	Nursery stock	Seeds and seedbeds	Seedlings
Agriculture crops, including	Trees	Poinsettias	Roses
vegetable crops, fruit crops,			
tobacco, etc			
Turf	Cut flowers	Flowering plants	Cuttings
Bedding plan	its	Bulbs	

# PERpose Plus<sup>TM</sup> Algaecide and Fungicide controls on contact

# It is not advisable to apply PERpose Plus<sup>TM</sup> in dry, extremely hot conditions.

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** <u>concentrate</u> must not be combined or mixed with any other pesticide or fertilizer. A diluted solution of **PERpose Plus<sup>TM</sup>** may be used in combination with most soluble fertilizers, although a compatibility test should be completed prior to mixing a final batch. **Solution Preparation** 

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** works best when diluted with water containing low levels of organic or inorganic materials and having a neutral PH. Rinse mixing tank thoroughly with water before mixing concentrate, or residues may cause product to lose effectiveness. **PERpose Plus<sup>TM</sup>** will readily mix with clean, neutral water and does not require additional agitation. Prepare a solution by filling the tank with the required volume of water and then add concentrate as required.

# Do not reuse already mixed solution; make fresh daily.

The **Bi-Product** of **PERpose Plus<sup>TM</sup>**, after application, is oxygen and water.

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** is not compatible and may react with residues of recent foliar applications of metal based fungicides or supplements. For best results, apply **PERpose Plus<sup>TM</sup>**, allow to dry, prior to application of metal based fungicides, or supplements.

<u>Non-metal based fungicides may be used in combination with PERpose Plus<sup>TM</sup></u>. (please see web site for compatibility list) www.agrowingalternative.com

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** is effective via direct surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. When used in accordance with label directions, diluted **PERpose Plus<sup>TM</sup>** does not produce any visible residue or deleterious effects to plant. Leaf burn may occur if **PERpose Plus<sup>TM</sup>** is used at higher than recommended application rates.

# Do not apply this product through any irrigation system unless directed by the label. Refer to Chemigation Use Directions section.

# For use on Surfaces and Equipment

**PERpose Plus<sup>™</sup> Algaecide and Fungicide** may be used as a fungicide and algaecide in conjunction with a foaming adjuvant on the following sites:

	Benches	Watering systems
Greenhouse structures		
Pots	Evaporative coolers	Storage rooms
Ventilation equipment	Floors	Other equipment, etc

# **Use Rates and Directions**

Conversion	Table		
fluid oz	milliliters	fluid oz	milliliters
1/4	7.4	2 1/2	74
1/3	9.9	4 1/3	128
1/2	15	5 1/3	158
3/4	22	6 1/4	185
1	30	10	296
1 2/3	49	23	680
2	59	128	3785

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Use **PERpose Plus<sup>TM</sup>** Algaecide and Fungicide to suppress/control fungi and slime forming algae on greenhouse structures including: glazing, plastic, benches, walkways, floors, walls, fan blades, coolers, storage rooms, ventilation ducts, watering systems, vats, tanks, bins, elevators, storage areas, food contact surfaces, process water systems, trucks and related equipment, conveyors, spray equipment. Any equipment or structures pertaining to food contact surfaces should be rinsed with potable water after treatment with **PERpose Plus<sup>TM</sup>**.

1. Sweep and remove all gross plant debris. Use power sprayer to remove loose dirt.

2. Use a dilution of 1:50 or 2.0 fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water for surfaces that have not been pre-cleaned with water to remove organic deposits. A surfactant may be added if needed.

3. Apply solution in a manner that all surfaces are thoroughly wet. Acceptable application methods are: mop, sponge, power sprayer, or misting.

4. Heavy growths of algae and fungi may have to be manually removed following application. Use a solution of **PERpose Plus<sup>TM</sup>** to wash away dead growth.

5. Reapply as often as needed to control algae and fungi.

April 27, 2010

# **Foaming application**

**PERpose Plus<sup>TM</sup>** in combination with a foaming agent on porous, irregular and steel surfaces until completely covered. Allow to dry and do not rinse. Add foaming agent only into dilute **PERpose Plus<sup>TM</sup>** solution.

# For evaporative coolers

Treat existing algae and slime contaminated surfaces with a 1 ounce **PERpose Plus<sup>TM</sup>** per gallon of cooler water. Treat cooler water every week with a dilution of rate of  $\frac{1}{3}$  fl. oz. to  $\frac{1}{4}$  fl. oz. to \frac{1}{4} fl. oz. to  $\frac{1}{4}$  fl. oz. to \frac{1}{

us™ per gallon of 4 fl oz. PERpose Z

For irrigation systems including flooded floors, flooded benches, recycled waters stends, and humidification and misting systems.

1. Treat contaminated water with a dilution or <sup>1</sup>/<sub>3</sub> fl. oz. to <sup>1</sup>/<sub>4</sub> fl. oz. PERpose Plus<sup>™</sup> per gallon of water 2. Treat clean water with a dilution of 1:10,000, or 1 gallon of PERpose Plus<sup>™</sup> concentrate per 10,000

gallons of water.

# Foot Bath Mats

Using a dilution of 3/4 fl. oz. **PERpose Plus<sup>™</sup>** per gallon of water, fill foot bath mat to capacity. Use fresh solution daily.

# **Cutting Tools**

Use a dilution of 1:100 - 1:300 or 1.0 fl. oz. to 1/3 fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water. Drench tools to ensure full coverage. Additional surfactant may be used.

# Flats, Trays and Pots

Use a dilution of 1:100 - 1:300 or 1.0 fl. oz. or 1/3 fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water. Spray until runoff. Additional surfactant may be used.

# Reference regarding usage rates for both Horticulture and Agriculture Applications

The rates listed for application of **PERpose Plus<sup>TM</sup>**, are universal for both agriculture and horticulture use. The rates using **PERpose Plus<sup>TM</sup>** for curative results are 1:100, or1fl. oz. per gallon of clean water and 1/3 -1/4 fl. oz. per gallon of clean water used as a weekly preventative rate.

# Using PERpose Plus<sup>TM</sup> for curative measures

When using **PERpose Plus<sup>TM</sup>** curative rates, apply for 3 consecutive days drenching the entire plant, including leaves, stems stalks and the soil surface to saturation. Afterward, maintain with the preventative rate on a weekly basis for best results.

# Mist Propagation of Cuttings and Plugs for both Horticulture and Agriculture Applications

Inject **PERpose Plus<sup>™</sup> Algaecide and Fungicide** into the misting system to control/suppress algal and fungal disease, before disease becomes established on plant material. Inject **PERpose Plus<sup>™</sup>** using a dilution rate of 1:1000 on a consecutive basis for four to ten days. Reduce concentration to 1:5000 and continue application throughout the propagation cycle. At the first sign of disease, adjust concentration to 1:1000 or 1 gallon of **PERpose Plus<sup>™</sup>** per 1000 gallons of water.

# Pre-plant dip treatment for both Horticulture and Agriculture Applications

Use **PERpose Plus<sup>TM</sup> Algaecide and Fungicide** in agriculture and ornamental applications, including nursery plants, seed beds, seeds, seedlings, bulbs or cuttings for the control/suppression of damping-off, root and other stem rot diseases caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Botrytis*, *Crown Rot Powdery Mildew*, *Fusarium or Thielaviopsis*.

- 1. Use a dilution rate of <sup>1</sup>/<sub>3</sub> fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of water.
- 2. Immerse plants, or cuttings, remove and allow to drain. Do not rinse.

# Soil Drench for both Horticulture and Agriculture and Turf Application

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** is effective for the control/suppression of Pythium, Phytophthora, Rhizoctonia, Fusarium and Thielaviopsis and other plant diseases. Use as a soil drench at the time of seeding or transplanting, as well as a periodic drench. **PERpose Plus**<sup>TM</sup> can also be used on potting soil and growing mediums prior to planting.

- 1. Use a dilution of 1 fl. oz. per gallon of clean water.
- 2. Apply to saturation on soil or other growing media.

# Foliar Spray Treatment in Greenhouses for both Horticulture and Agriculture Applications

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** immediately controls/suppresses platter the gens upon to a surface contact. Apply **PERpose Plus<sup>TM</sup>** to horticulture ornamentals, agricultural trops bedding plants, flowering plants, shrubs, trees and Turf. Apply solution to ensure thorough coverage and wetting of the foliage.  $\delta < 725 - 1$ 

# **Initial (Curative) Application**

- 1. Use a dilution of 1 fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water. Make fresh daily; do not re-use already mixed solution
- 2. Spray, or mist plants in early morning, or late evening. Ensure that all plant surfaces, including upper and lower foliage, stems, branches and stalks are fully wet with use solution.
- 3. Apply for one to three consecutive days. Follow directions for preventive treatment after the initial application.

# Weekly (Preventative) Treatment:

- 1. Use a dilution of <sup>1</sup>/<sub>3</sub> fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water.
- 2. Apply solution to plants by spray, mist, or fog.
- 3. Ensure that all plant surfaces, including upper and lower foliage, stems, branches and stalks are fully wet with use solutions. Spray every five to seven days as a preventative treatment.
- 4. At the first signs of disease, spray daily with 1 fl. oz. of **PERpose Plus<sup>™</sup>** per gallon of water . Treat plants for three consecutive days and then resume weekly preventative treatment.

# Foliar spray application in the field for Horticulture and Agriculture

**PERpose Plus<sup>TM</sup> Algaecide and Fungicide** controls/suppresses disease immediately upon contact with any plant surface. Ensure that all plant surfaces, including upper and lower foliage, stems, branches and stalks are fully wet with use solution.

# Initial (Curative) Application:

1. Use a dilution of 1 fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water. Make fresh daily; do not re-use already mixed solution

2. Spray or mist plants in early morning or late evening. Ensure that all plant surfaces, including upper and lower foliage, stems, branches and stalks are fully wet with use solution.

3. Apply for one to three consecutive days. Follow directions for preventive treatment after the initial application.

# Weekly (Preventative) Treatment:

- 1. Use a dilution of <sup>1</sup>/<sub>3</sub> fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water.
- 2. Apply solution to plants by spray, mist, or fog.
- 3. Ensure that all plant surfaces, including upper and lower foliage, stems, branches and stalks are
- fully wet with use solutions. Spray every five to seven days as a preventative treatment.

At the first signs of disease, spray daily with 1 fl. oz. of **PERpose Plus<sup>TM</sup>** per gallon of water. Treat plants for three consecutive days and then resume weekly preventative treatment.

# Nursery stock and cut flowers for both Horticulture and Agriculture Applications

# Apply **PERpose Plus<sup>™</sup>** to nursery stock such as:

Woody ornamentals	Bedding plants	Flowering plants
Roses	Container plants	Rhododendrons
Conifers	Azaleas	Shade trees
Agricultural crops	· ·· ··· · · · · · · · · · · · · · · ·	Natural Turf

# Cut flowers

Use **PERpose Plus<sup>TM</sup>** Algaecide and Fungicide to prevent Botrytis, Downy Mildew and Powdery Mildew on flowers in transit or cold storage. Apply post-harvest.

Use ¼ fl. oz. of **PERpose Plus<sup>™</sup>** per gallon of clean water. Spray flowers after grading and prior to storage or shipment. Repeat weekly for flowers in storage.

#### Bare root nursery stock for both Horticulture and Agriculture Applications

Use **PERpose Plus<sup>TM</sup> Algaecide and Fungicide** to prevent Botrytis on bud wood and nursery stock in storage.

Use a dilution of  $\frac{1}{4} - \frac{1}{3}$  fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of water. Apply use dilution until plants are dripping wet or apply by dip method. Repeat weekly if necessary.

# For seedbed treatment for both Horticulture and Agriculture and Turf Applications

- 1. Prior to sowing seed, use a dilution or 2 fl. oz. PERpose Plus<sup>™</sup> per gallon of clean water.
- 2. Thoroughly wet or drench the seed bed to the point of saturation, with 60 to 100 gallons of dilute solution per 1000 square feet.
- 3. Let sit for one hour then immediately seed soil.
- 4. After seeds have germinated, use a dilution of 1 fl. oz. **PERpose Plus<sup>™</sup>** per gallon of clean water.
- 5. Wet soil and seedlings to a point of thorough wetness using light spray, or irrigation techniques.
- 6. Repeat application once per week until seed is well established.

# For Use as a soil treatment prior to inoculation with beneficial microorganisms for Horticulture, Agriculture and Turf Applications

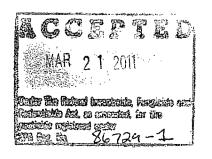
Use **PERpose Plus<sup>TM</sup> Algaecide and Fungicide** to reduce the number of pathogenic plant microorganisms in the soil.

- 1. Use a dilution of 2 fl. oz. **PERpose Plus<sup>TM</sup>** per gallon of clean water.
- 2. Thoroughly wet, or drench the area to be inoculated.
- 3. Wait one day before inoculating the soil.

# For turf treatment following inoculation of soil with beneficial microorganisms for Horticulture, Agriculture and Turf

Use **PERpose Plus<sup>™</sup> Algaecide and Fungicide** to control plant pathogens on the foliar portion of turf. 1. Use a dilution 1 fl. oz **PERpose Plus<sup>™</sup>** per gallon of clean water.

Apply to the turf by gently spraying leaf surfaces. Do not allow solution to be drenched into the soil and root systems, as a temporary reduction of beneficial soil microorganisms may occur



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# **Turf Applications**

# Broad spectrum treatment for control of algae, fungi on natural turf.

**PERpose Plus<sup>TM</sup>** can be injected through automatic irrigation systems in turf areas. Refer to "Chemigation Directions" for use of specific instructions on using this product through irrigation systems.

Use **PERpose Plus<sup>TM</sup> Algaecide and Fungicide** to control Anthracnose, Brown Spot, Dollar Spot, Copper Spot, Fairy Ring, Pink Snow Mold, Pythium, Phytophthora, Summer Patch, Rhizoctonia, Scum, Fusarium Blight, Stripe Smut, Leaf Spot, Algae, Slime Molds and their spores.

For use on all turf types including: Commercial turf Golf course fairways

Lawns Greens and tees

On the following grasses:

Bermudagrass Blue grass Fescue Bent grass Rye Grass St. Augustine including turf combinations

Athletic fields

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# For Preventative Treatment of Algae/Fungus on Natural Turf

Typical treatment rates involve treating approximately 1000 square feet of lawn area with 1 to 10 gallons of diluted solution. Spray entire area until saturation to ensure the solution penetrates algal crusts and deposits. For best results use a spreader surfactant.

# **Initial (curative) Treatment**

For treatment of heavy infestations of algae, dilute 5 ⅓ to 10 fl. oz. of **PERpose Plus<sup>™</sup>** in 5 gallons of clean water. Apply 5-10 gallons of dilute solution per 1000 square feet.

# **Preventative Treatment**

To prevent algal diseases, dilute  $1^{2}/_{3}$ , to  $4^{1}/_{3}$  fl. oz. of **PERpose Plus<sup>TM</sup>** in 5-10 gallons of clean water. Use 1-5 gallons of diluted solution per 1000 square feet.

- Applications may be repeated every 5 to 7 days, or as necessary to control disease.
- For best results, apply in early morning, or late afternoon.
- Apply immediately after grass has been cut.
- Applications may also be made during wet or rainy weather.

# For severe conditions of crusted algae

- 1. Dilute 23 fluid ounces of **PERpose Plus<sup>™</sup>** per 2-10 gallons of clean water.
- 2. Apply 2-10 gallons of use solution to 1000 square feet of affected area.
- 3. Increased rates of active ingredient and increases in water volume may be required to penetrate layers of algae under severe conditions.
- 4. Under severe conditions, applications may be doubled by either increasing the amount of active ingredient per 1000 square feet of turf, or by applying treatment solution twice over the same area.

# For fungicide treatment of natural turf

# For initial (curative) treatment of heavy infestations of fungal disease

- 1. Dilute 5 <sup>1</sup>/<sub>3</sub> to 10 fl. oz. **PERpose Plus<sup>TM</sup>** in 5 gallons of clean water. For every 1000 square feet of turf, use 5-10 gallons of dilute solution.
- 2. Spray entire area until run-off. A spreader surfactant may be used for enhanced results.
- 3. For best results, apply uniformly over the area immediately after grass has been cut.

#### For preventative treatment of fungal disease

- 1. Dilute 2 <sup>1</sup>/<sub>2</sub> to 6 <sup>1</sup>/<sub>4</sub> fl. oz. **PERpose Plus<sup>TM</sup>** per 5-10 gallons of clean water. Apply 5-10 gallons of dilute solution per 1000 square feet.
- 2. Spray entire area until run-off. A spreader surfactant may be used for enhanced results.
- 3. Start applications at the first sign of disease and repeat every 5 to 7 days, or as needed to control new, or established disease conditions.
- 4. For best results, apply uniformly over the area immediately after grass has been cut.
- 5. Applications may be repeated every 5 to 7 days, or as necessary to control disease?
- 6. For best results, apply in early morning, or late afternoon.
- 7. Apply immediately after grass has been cut.
- 8. Applications may also be made during wet or rainy weather.

# **Chemigation Directions for Use**



# **General Requirements:**

- 1. Apply this product through one of the following types of irrigation systems: center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, flood basin, or drip trickle irrigation system. Do not apply this product through any other type of irrigation system.
- 2. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- 3. Ensure that the irrigation system is properly calibrated. If you have questions about calibration, contact the State Extension Service specialist, the equipment manufacturer, or other experts.
- 4. Do not connect irrigation systems (including greenhouse systems) used for pesticide application to a public water system unless proper safety devices for public water systems are in place. Read specific requirements provided below.
- 5. A person knowledgeable of the chemigation system and responsible for operation, or under the supervision of the responsible person, shall shut the system down and make any necessary adjustments should the need arise.

# **Specific Requirements for all Irrigation 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 throughout the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reducedpressure zone (RPZ), backflow preventer 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 of 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 liquid back towards 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 drawn 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 or equivalent, effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.
- 7. Do not apply outdoors when wind speed favors drift beyond the area intended for treatment.

# **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 residue may cause product to lose effectiveness of strength.
- 2. Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3. Prepare a solution by filling the tank with the required volume of water and then adding product as required. The product will immediately go into solution without any required agitation.
- 4. **PERpose Plus<sup>™</sup> Algaecide and Fungicide** must not be applied in conjunction with any other pesticides or fertilizers as this may reduce performance of the product and should be avoided.

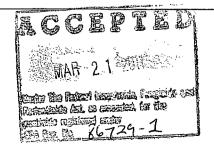
# STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in the original container in a cool area out of direct sunlight and away from combustibles.

PESTICIDE DISPOSAL: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance

CONTAINER DISPOSAL; Non-refillable container up to 5 gallons. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Empty rinsate into application equipment, a mix tank, or store rinsate for later use, or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available. Non-refillable container greater than 5 gallons. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Turn the container onto its other end and tip it back and forth several times. Empty rinsate into application equipment, a mix tank, or store rinsate for later use, or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.



# Warranty

This material conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing, method of application, weather, watering practices, nature of soil, potting medium, disease problem, the condition of crop, incompatibility with other chemicals, pre-existing conditions and other conditions influencing the use of this product are beyond the control of the seller. Buyer assumes all risks associated with the use, storage, or handling of this material not in strict accordance with directions given herewith. TO THE EXTENT ALLOWABLE BY STATE LAW, NO - OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE.

Manufactured for: A Growing Alternative, Inc. 751 Fairview Church Road Spruce Pine, NC 28777 828-766-6179 www.agrowingalternative.com

EPA Registration No. 86729-1

EPA Est. No.\_\_\_\_

Net Contents:

5 Gal 18.93 L 15 Gal

56.78 L

30 Gal 113.56 L 55 Gal 275 Gal 208.19 L 1041 L 13/13

