SPECIMEN LABEL

Agri Star[®]

FLUDIOXONIL	GROUP	12	FUNGICIDE
MEFENOXAM	GROUP	4	FUNGICIDE
TOLCLOFOS-METHYL GROUP 14 FUN		FUNGICIDE	

PULSE PREMIX 3.0 ST

Fungicide seed treatment for protection against the specified seed and seed-borne diseases in cotton, barley, oats, spring wheat, winter wheat, triticale, legumes and soybeans.

ACTIVE INGREDIENTS:	
Fludioxonil	
Mefenoxam	
Tolclofos-methyl	
OTHER INGREDIENTS:	

Contains 0.22 lbs (99.8 grams) fludioxonil, 0.65 lbs (294.8 grams) mefenoxam, and 0.87 lbs (394.6 grams) tolclofos-methyl per gallon.

EPA Reg. No. 45002-30

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF SWALLOWED:	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to by a poison control center or doctor. DO NOT give anything by mouth to an unconscious person. 	
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. Call a poison control center or doctor for treatment advice. 	
IF ON SKIN OR Clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. 	
	R : Have the product container or label with you when calling a poison control center or treatment. For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC:	
NOTE TO PHYSICIAN: Treatment is supportive and symptomatic. This material contains an organophosphate		

ate that inhibits cholinesterase. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal, 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone. Other non-cholinergic signs and symptoms should be treated symptomatically.

See additional precautionary statements and directions for use inside booklet.

Manufactured By: **ALBAUGH, LLC** 1525 NE 36th Street Ankeny, Iowa 50021

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC 1-800-424-9300



AD012022

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton
- Shoes plus socks
- Protective eyewear (goggles, face shield, safety glasses)

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENTS

When handlers use closed systems 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:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. 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

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. **DO NOT** contaminate water when disposing of equipment washwater or rinsate. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.

Groundwater Advisory Statement: Metalaxyl is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow, and may result in groundwater contamination.

PHYSICAL AND CHEMICAL HAZARDS

DO NOT mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

This product must be used only in accordance with use instructions on this label utilizing mechanical, slurry, or mist type seed treating equipment. Calibrate the equipment to accurately and uniformly apply the product to seed. This product is for both commercial and on-farm application.

DO NOT apply this product in hopper-box or planter-box at planting time. Always mix product thoroughly before use.

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, 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 48 hours.

Exception: If the seed is treated with the product and the treated seed is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

1. Coveralls

2. Chemical-resistant gloves: barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton

3. Shoes plus socks

Failure to follow the directions for use and precautions on this label may result in crop injury, poor disease control, or illegal residues.

Treatment of highly mechanically damaged seed, or seed of known low vigor and poor quality, may result in reduced germination and/or reduction of seed and seedling vigor. Treat and conduct germination test on a small portion of seed before committing the total seed lot to a selected chemical treatment. Due to seed-quality conditions beyond the control of Albaugh, LLC, no claims are made to guarantee germination of carry-over seed.

USE RESTRICTIONS

- When applying both metalaxyl-containing and mefenoxam-containing products to the same crop within the same season **DO NOT** apply more than the maximum yearly total application rate for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.
- **DO NOT** use for feed, food or oil purposes.
- This product may only be used on true seeds and may not be used on propagative plant parts such as garlic cloves.
- **DO NOT** plant treated seeds by broadcast.
- **DO NOT** allow children, pets or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.
- Dispose of all excess treated seed. Leftover treated seed may be double sown around the headland or buried away from water sources in accordance with local requirements.
- For all treated crops, DO NOT exceed seeding rate of 200 lb/A except cotton which cannot exceed 40 lb/A.
- Regardless of the method of application, the maximum application rate for each active ingredients (lbs/ai/A/year) is as follows: fludioxonil 0.9 (408.2g), mefenoxam 1.0 (453.6g), toclofos-methyl 0.02 (9.07g).
- This seed has been treated with ___ mg fludioxonil, ___ mg mefenoxam, and ___ mg tolclofos-methyl per seed.
- **DO NOT** exceed 2 applications per season.
- **DO NOT** contaminate bodies of water when disposing of planting equipment wash water.
- This pesticide is toxic to fish. **DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas.
- Contain any product spills or equipment leaks and dispose of wastes according to the disposal instructions on this label.
- Dispose of seed packaging or containers in accordance with local requirements.
- Use crop-specific seeding rates according to local agricultural practice.
- Excess treated seed may be used for ethanol production only if:
 - 1. By-products are not used for livestock feed, and
 - 2. No measurable residues of pesticide remain in the ethanol by-products that are used in agronomic practice.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored with an EPA approved dye such as one of the dyes listed in 40 CFR Sections 180.910 & 180.920 to distinguish and prevent subsequent inadvertent use as a food for man or feed animals.

PRODUCT INFORMATION

This product is a seed treatment fungicide that protects against damping-off and seed rots due to *Pythium, Phytophthora, Fusarium, Rhizoctonia* spp., and early season *Phytophthora* root rot. This product also suppresses seed-borne *Sclerotinia* and *Phomopsis* spp., particularly in soybeans. This product contains the active ingredient metalaxyl that provides systemic protection against *Pythium* and early season Phytophthora root rot. Helminthosporium, and weakly pathogenic fungi as Aspergillus and Penicillium.

Tolclofos-methyl provides protection against Rhizoctonia solani and seed borne and soil borne fungal pathogens that cause seed decay, damping off and seedling blight.

This product also contains the active ingredient fludioxonil that provides protection against certain soil-borne and seed-borne diseases of crop plants. Fludioxonil is active against *Fusarium, Rhizoctonia, Helminthosporium,* and weakly pathogenic fungi such as *Aspergillus* and *Penicillium*.

RESISTANCE MANAGEMENT

For resistance management, please note that this product contains Group 4 (mefenoxam), Group 12 (fludioxonil) and Group 14 (tolclofosmethyl) fungicides. Any fungal population may contain individuals naturally resistant to this product and other Group 4 or Group 12 or Group 14 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 4, 12 and 14 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.

Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.

- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or 1PM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Albaugh, LLC at 1-800-247-8013. You can also contact your pesticide distributor or university extension specialist to report resistance.

ALBAUGH encourages responsible product stewardship to ensure effective long term control of the fungal diseases on this label.

All applications must be made according to the use directions that follow.

MIXING INSTRUCTIONS FOR SOYBEANS

This product is especially formulated for on-farm or commercial treatment to be used with liquid rhizobia products, using standard mechanical slurry or mist-type seed treatment equipment which accurately measures and mixes a flowable seed treatment. The equipment must provide uniform coverage of this product on the seed. Uneven seed coverage may not give the desired level of disease control. This product must be diluted with either water or liquid inoculants prior to application to soybeans. Consult the manufacturer of the application equipment you plan to use for suitability for this application and for instructions on operation and calibration of the equipment.

DO NOT mix this product with other pesticides unless sufficient compatibility, loading rates, and seed and crop safety factors are determined.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

In a clean container large enough to contain the entire mixture add the desired amount of this product. Add half of the required water or liquid inoculant and mix thoroughly. Add the remaining amount of water or liquid inoculant and mix again. The slurry is ready for application to the soybeans. Mix as needed and **DO NOT** store diluted mixture.

Additional or continuous agitation or mixing of the slurry mixture may be necessary to prevent this product from settling out of solution when using water or liquid inoculants.

This product has been found to be compatible with some liquid inoculant products. This product may be mixed or applied sequentially with approved liquid inoculants. Consult the maker of the liquid inoculants and an ALBAUGH, LLC representative for directions before applying this product with liquid inoculants.

Special Precaution:

This product is specially formulated to be compatible with some liquid inoculants. If water is used to further dilute this product when rhizobia are present, use only nonchlorinated water. Chlorinated water will kill the live rhizobia contained in the inoculant.

MIXING INSTRUCTIONS FOR OTHER LEGUMES

Apply this product as a water based slurry utilizing standard slurry seed treatment equipment which provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease protection.

Thoroughly mix the labeled amount of this product into the required amount of water for the slurry treater and dilution rate to be used.

Follow the manufacturer application instructions for the seed treatment equipment being used. Maintain constant agitation of the slurry during the treatment. Allow seed to dry before bagging.

CROP SPECIFIC USE INSTRUCTIONS

SEED TREATMENT USE RATE (all crops listed)					
Rate of this product / 100 lbs. seed	Active Ingredient	g a.i. / 100 lbs	g a.i. / 100 kg		
1.5 fl.oz. (44.4 mL)	Fludioxonil	1.1	2.5		
	Mefenoxam	3.4	7.5		
	Toclofos-methyl	4.6	10.1		
Сгор	Diseases Controlled				
SOYBEANS:	Seed rot, seedling blight, pre and post-emergence damping-off caused by <i>Fusarium</i> spp., <i>Rhizoctonia</i> spp. and <i>Pythium</i> spp. Early season seedling root rot caused by <i>Fusarium</i> spp. Early season <i>Phytophthora</i> spp. Seedling blight and seed rot caused by <i>Phomopsis</i> spp. Suppression of seed-borne <i>Sclerotinia</i>				

If the target soybean fields have a history of high *Phytopthora* pressure then use a tank mix with additional mefenoxam or metalaxyl seed treatment fungicide^{1,2}. Alternatively, approved liquid rhizobia inoculants at rates labeled by manufacturer to achieve proper total slurry volumes can be used.

DO NOT apply more than 0.52 lb ai/A (3 gal ai/A) per calendar year of mefenoxam or metalaxyl-containing products as a seed treatment on soybeans.

DO NOT apply more than 0.25 lb. ai/Acre (115 g ai/Acre) per calendar year of mefenoxam or metalaxyl- containing products as a seed treatment on legume vegetables.

COTTON:	Pre and post-emergence damping-off caused by <i>Fusarium</i> spp., <i>Rhizoctonia</i> spp. and <i>Pythium</i> spp.
CEREALS: wheat (winter & spring), barley, oats, and triticale	Seed rot, seedling blight, pre and post-emergence damping-off caused by <i>Fusarium</i> spp., <i>Rhizoctonia</i> spp. and <i>Pythium</i> spp

¹ Where mefenoxam/metalaxyl products used allow **the same** maximum amount (lbs) of active ingredient per acre per calendar year: If more than one product containing mefenoxam/metalaxyl active ingredient is used on an acre during the same calendar year and the mefenoxam/ metalaxyl products used allow the same maximum amount (lbs) of active ingredient per acre per calendar year, then the total amount of all such mefenoxam/metalaxyl products used must not exceed any of the specified individual mefenoxam/metalaxyl product maximum of active ingredient allowed per acre per calendar year.

² Where mefenoxam/metalaxyl products used allow **different** maximum amount (lbs) of active ingredient per acre per calendar year: If more than one product containing mefenoxam/metalaxyl active ingredient is used on an acre during the same calendar year and the mefenoxam/ metalaxyl products used allow different maximum amount (lbs) of active ingredient per acre per calendar year, then the total amount of all such mefenoxam/metalaxyl products used must not exceed the lowest specified individual mefenoxam/metalaxyl product maximum of active ingredient allowed per acre per calendar year.

SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that containers of treated seeds shall be labeled with the following statements:

- This seed has been treated with mefenoxam, fludioxonil, and tolclofos-methyl fungicides
- **DO NOT** use for feed, food, or oil purposes.
- Store treated seed away from food and feedstuffs.
- When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored with an EPA approved dye such as one of the dyes listed in 40 CFR Sections 180.910 & 18.920 to distinguish and prevent subsequent inadvertent use as a food for man or feed animals.

In addition, the U.S. Environmental Protection Agency requires the following statements on containers of seeds treated with this product:

- Ground Water Advisory: Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.
- For all treated crops except for cotton, DO NOT exceed seeding rate of 200 lb/A. The maximum allowed seeding rate for cotton is 40 lb/A.
- **DO NOT** allow children, pets or livestock to have access to treated seeds.
- Wear long pants, long-sleeved shirt and protective gloves when handling treated seed.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading and planting.
- Dispose of all excess treated seed. Leftover treated seed may be double sown around the headland or buried away from water sources in accordance with local requirements.
- For all treated crops, **DO NOT** exceed seeding rate of 200 lb/A except cotton which cannot exceed 40 lb/A.
- Regardless of the method of application, the maximum application rate for each active ingredients (lbs/ai/A/year) is as follows: fludioxonil 0.9 (408.2g), mefenoxam 1.0 (453.6g), toclofos-methyl 0.02 (9.07g).
- This seed has been treated with ___ mg fludioxonil, ___ mg mefenoxam, and ___ mg tolclofos-methyl per seed.
- DO NOT exceed 2 applications per season.
- **DO NOT** contaminate bodies of water when disposing of planting equipment wash water.
- This pesticide is toxic to fish. **DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in water adjacent to treated areas.
- Contain any product spills or equipment leaks and dispose of wastes according to the disposal instructions on this label.
- Dispose of seed packaging or containers in accordance with local requirements.
- Use crop-specific seeding rates according to local agricultural practice.
- Excess treated seed may be used for ethanol production only if:
 - 1. By-products are not used for livestock feed, and
 - 2. No measurable residues of pesticide remain in the ethanol by-products that are used in agronomic practice.
- Treated seed must be planted into the soil at a depth greater than 1 inch.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original containers only in a cool, dry place. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Open dumping is prohibited. 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 of the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Non-refillable container. **DO NOT** reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¹/₄ 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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The **DIRECTIONS FOR USE** of this product are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ALBAUGH, LLC or the Seller. All such risks shall be assumed by the Buyer. **WITHOUT LIMITATION, THE BUYER SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.**

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