

Agri Star®

SPECIMEN LABEL

For use as a seed treatment for control of systemic downy mildew, Pythium seed rot, Pythium damping-off, and early-season Phytophthora diseases of certain crops.

METALAXYL 4.0 ST

Fungicide

ACTIVE INGREDIENT:

Metalaxyl: N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester 44.08%

OTHER INGREDIENTS 55.92%

TOTAL 100.00%

Contains 4.0 pounds Metalaxyl per gallon (480 grams per liter).

EPA Reg. No. 42750-219

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none">• 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 do so by a poison control center or doctor.• Do not give anything to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none">• 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.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• 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.
IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further 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.

See inside booklet for additional PRECAUTIONARY STATEMENTS.

Manufactured for:

ALBAUGH, LLC

1525 NE 36th Street
Ankeny, Iowa 50021

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



Albaugh®
Your Alternative™

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category **A** on an EPA chemical resistance selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes and socks,
- Chemical-resistant gloves such as barrier laminate or nitrile rubber or neoprene rubber or Viton.

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.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands thoroughly with soap and water after handling and 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 clothes.
- 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

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwater or rinsates.

Groundwater Advisory Statement: This chemical 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.

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.

All seed must be adequately dyed with a suitable colorant to prevent its accidental use as food for man or feed for animals. Refer to 21CFR, part 2.25. Any colorant added to treated seed must be cleared for use under 40 CFR, part 153.155.

SEED BAG LABEL REQUIREMENTS

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

- This seed has been treated with METALAXYL 4.0 ST (or other product), a fungicide containing metalaxyl.
- Do not use treated seed for feed, food, or oil purposes.

The U.S. Environmental Protection Agency requires the following statements on containers containing seed treated with metalaxyl:

- Store treated seed away from food and feedstuffs.
- 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 by burying seed away from bodies of water.
- Do not contaminate bodies of water when disposing of planting equipment wash water.
- Dispose of seed packaging or containers in accordance with local requirements.
- Excess treated seed may be used for ethanol production if
 1. by-products are not used for livestock feed and
 2. no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.

Seed treatment on agricultural establishment at or immediately before planting is within the scope of WPS, while commercial treatment of seeds is not within the scope.

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 emergence assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. 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 24 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 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:

- Coveralls
- Shoes plus socks and
- Chemical-resistant gloves such as barrier laminate or nitrile rubber or neoprene rubber or viton.

PRECAUTIONS

This product is a systemic fungicide seed dressing specifically for control of systemic downy mildews, *Pythium* and *Phytophthora* spp. For control of other soilborne diseases, combination of captan, thiram and carboxin registered formulations are compatible.

Note: This product is a systemic fungicide having a specific mode of action. This product could be subject to development of resistant strains of fungi. Development of resistance cannot be predicted. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible metalaxyl resistant strains of fungi which may occur.

FAILURE TO FOLLOW DIRECTIONS OF THIS LABEL MAY RESULT IN CROP INJURY OR POOR DISEASE CONTROL.

RESTRICTIONS

- Do not use with other seed treatment products unless previous experience assures compatibility.
- Maximum usage when applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum seasonal total for the active ingredient as stated on the label of the product containing the lowest seasonal total on that crop.
- **In California:** Only for use in commercial seed treating establishments. Not allowed for "on-farm" use.
- **For Commercial Seed Treatment:** Seed treated commercially or for sale must be dyed an unnatural color using an EPA approved dye before sale. Federal law requires that bags containing treated seed shall be labeled with the following information:
 - "This seed has been treated with METALAXYL 44% FL ST which contains the active ingredient metalaxyl. Do not use treated seed for food, feed or oil purposes. Store away from feed and foodstuffs. Do not harvest mustard greens. Rape greens grown and harvested from METALAXYL 44% FL ST treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from METALAXYL 44% FL ST-treated seed is only for industrial uses and cannot be used for edible oil or any other human/feed consumption."
- **Tank mixing:** When tank mixing follow the most restrictive label instructions for tank mix partners. Do not tank mix with any other product that contains a prohibition against tank mixing.
- **On-Farm Seed Treatment:** Do not apply this product through any type of irrigation system.
- 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

This product may be applied as a water-based slurry with other registered seed treatment insecticides and fungicides through standard slurry or mist-type commercial seed treatment equipment. DO NOT use metalaxyl or mefenoxam for control of *Pythium* in water-seeded rice.

DOMESTIC USE

CROP	DISEASE	RATE (Fl. Oz. per 100 Pounds of Seed)
Beets, Garden and Sugar Beets	<i>Pythium</i> damping-off control	0.50
Canola* Mustard Seed* Rapeseed*	<i>Pythium</i> damping-off control	0.20–0.30
	NOTE: Do not harvest mustard greens. Rape greens grown and harvested from METALAXYL 4.0 ST-treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from METALAXYL 4.0 ST-treated seed is only for industrial uses and cannot be used for edible oil or any other human/feed consumption.	
Carrots*	<i>Pythium</i> damping-off control	0.50
Cucumbers*	<i>Pythium</i> damping-off control	0.50

(continued)

SEED TREATMENT (cont.)

CROP	DISEASE	RATE (Fl. Oz. per 100 Pounds of Seed)
Forage Grasses Grasses grown for hay, grazing or silage, Corn (fodder or silage), Sorghum (hay or silage), and small grain grown for hay, grazing or silage	<i>Pythium</i> damping-off control	0.50
Forage Legumes Alfalfa, Beans (for forage), Clover, Cowpeas (for forage), Cowpea hay, Lespedeza, Peanuts (for forage), Peanut hay, Peas (for forage), Pea vine hay, Soybeans (for forage), Soybean hay, Trefoil, Velvet beans (for forage) and Vetch	<i>Pythium</i> damping-off and early-season <i>Phytophthora</i> control	0.50–1.00
Grain Crops Barley, Buckwheat, Millet, Milo, Oats, Rye, Triticale, and Wheat	<i>Pythium</i> damping-off control	0.50
	Systemic downy mildew control of sweet corn	1.00
Peanuts*	<i>Pythium</i> seed rot and damping-off control	0.50
Rice*	<i>Pythium</i> damping-off control	0.50–1.00
	NOTE: If using METALAXYL 4.0 ST-treated rice, do not use metalaxyl or mefenoxam for control of <i>Pythium</i> in water-seeded rice. Containers or bags containing METALAXYL 4.0 ST-treated rice seed must be labeled with the restriction.	
Seed and Pod Vegetables Black-eyed peas, Chickpeas (Garbanzos), Cowpeas, Dill, Edible soybeans, Field beans, Field peas, Green beans, Kidney beans, Lentils, Lima beans, Lupines, Navy beans, Okra, Peas, Pole beans, Snap beans, String beans and Wax beans	<i>Pythium</i> damping-off control	0.50
	Early-season <i>Phytophthora</i> control	0.50
	Control of <i>Pythium</i> damping-off and systemic downy mildew of peas	1.00
Sorghum	<i>Pythium</i> damping-off	0.25–0.50
	Systemic downy mildew (races susceptible to chemical control)	0.50–2.00 Apply 0.50–1.00 fluid ounce of this product on cultivars which possess sorghum downy mildew resistance. To those cultivars which do not possess resistance to a particular race of sorghum downy mildew in heavily infected areas with recent severe history, apply 1.00–2.00 fluid ounces of this product. Only high-quality sorghum seed (90% germination and above) should be treated with this product.
Spinach*	<i>Pythium</i> damping-off control	0.50
	NOTE: Do apply this product to spinach which is destined to be grown in the greenhouse. Containers or bags containing METALAXYL 4.0 ST-treated spinach seed must be labeled with this restriction.	
Sunflowers	Systemic downy mildew control	1.00–2.00
Turf Grasses Golf Courses, Home Lawns, Reclamation and Erosion Control Projects	<i>Pythium</i> damping-off control	1.00

*Not registered for use in California.

(continued)

SEED TREATMENT (cont.)

For *Pythium* seed rot and damping-off. Apply METALAXYL 44% FL ST as a seed treatment:

Cotton		METALAXYL 44% FL ST Application Rate		Maximum Planting Rate – seeds/A	
	seeds/lb.	fl. oz./CWT	mg AI/seed	@ 0.5 fl. oz./CWT	@ 1.0 fl. oz./CWT
	3600	0.5–1.0	0.019–0.038	96,320	48,160
	4400	0.5–1.0	0.015–0.031	117,700	58,860
	5200	0.5–1.0	0.013–0.026	139,100	69,560
	6000	0.5–1.0	0.011–0.023	160,500	80,270

*Do not apply by seed treatment more than 0.004 pound of metalaxyl (0.13 fl. oz. METALAXYL 44% FL ST) per acre per year.

For *Pythium* seed rot and damping-off. Apply METALAXYL 44% FL ST as a seed treatment:

Soybean		METALAXYL 44% FL ST Application Rate			Maximum Planting Rate – seeds/A*	
	seeds/lb.	fl. oz./CWT	fl. oz./140,000 seed unit	mg AI/seed	@ 0.5 fl. oz./CWT	@ 1.0 fl. oz./CWT
	2000	0.5–1.0	0.34–0.67	0.034–0.068	222,100	111,000
	2400	0.5–1.0	0.28–0.56	0.028–0.057	266,500	133,200
	2800	0.5–1.0	0.24–0.50	0.024–0.048	310,900	155,400
	3200	0.5–1.0	0.21–0.42	0.021–0.042	355,300	177,700
	3600	0.5–1.0	0.19–0.37	0.019–0.038	399,700	199,900

*Do not apply by seed treatment more than 0.0166 pound of metalaxyl (0.53 fl. oz. METALAXYL 44% FL ST) per acre per year.

To aid in the control of seed decay and damping-off caused by *Pythium*: Apply METALAXYL 44% FL ST as a commercial seed treatment.

Corn (field)		METALAXYL 44% FL ST Application Rate			Maximum Planting Rate – seeds/A*	
	seeds/lb.	fl. oz./CWT	fl. oz./80,000 seed unit	mg AI/seed	@ 0.064 fl. oz./CWT	@ 0.240 fl. oz./CWT
	1200	0.064–0.24	0.045–0.16	0.008–0.028	457,500	122,000
	1600	0.064–0.24	0.03–0.12	0.006–0.021	610,000	162,700
	2000	0.064–0.24	0.025–0.10	0.005–0.017	762,500	203,300
	2400	0.064–0.24	0.02–0.08	0.004–0.014	915,000	244,000

Do not apply by seed treatment more than 0.0076 pound of metalaxyl (0.29 fl. oz. METALAXYL 44% FL ST) per acre per year.

(continued)

SEED TREATMENT (cont.)

EXPORT USE

For treatment of the following seed for export to countries requiring treatment with metalaxyl before importation.

CROP	DISEASE	RATE (Fl. Oz. per 100 Pounds of Seed)
Brassica (Cole) Leafy Vegetables	<i>Pythium</i> damping-off control	0.50–1.00
Canola	<i>Pythium</i> damping-off control	0.30–1.10 (20–66 ml per 100 Kg of seed)
Corn	<i>Pythium</i> damping-off control	0.50–1.00
	Systemic downy mildew control	2.00
Cucurbit Vegetables	<i>Pythium</i> damping-off control	0.50
Fruiting Vegetables	<i>Pythium</i> damping-off control	0.50–1.00
Leafy Vegetables	<i>Pythium</i> damping-off control	0.50–1.00
Millet	<i>Pythium</i> damping-off control	0.50–1.00
	Systemic downy mildew control	1.70
Onions	<i>Pythium</i> damping-off control	0.50–1.00
Peas	<i>Pythium</i> damping-off and early-season <i>Phytophthora</i> control	2.30
Root and Tuber Vegetables	<i>Pythium</i> damping-off control	0.50–1.00
	NOTE: Do not apply this product to potatoes.	
Sorghum	<i>Pythium</i> damping-off control	0.50–1.00
	Systemic downy mildew control	3.50
Sunflower	Systemic downy mildew control	6.00

Seed treated in accordance with the export use pattern must be labeled as follows:

FOR EXPORT ONLY – NOT FOR DOMESTIC SALES OR USE

Refer to the Seed Bag Label Requirements section for labeling requirements on treated seed containers.

DIRECTIONS FOR USE AT REDUCED RATES IN COMBINATION WITH OTHER FUNGICIDES

This product is a systemic fungicide seed dressing which may be applied in combination with other EPA-registered fungicides to aid in control of *Pythium*. This product may be applied as a water based slurry through standard slurry or mist-type commercial seed treatment equipment.

CROP	DISEASE	RATE (Fl. Oz. per 100 Pounds of Seed)
Barley, Corn (field), Oats, Rye and Wheat	Aid in control of seed decay and damping-off caused by <i>Pythium</i>	0.07–0.25
Beans (field, kidney, navy and pinto), Lentils, Peas and Soybeans		
Peanuts*		
Rice*		
Sunflowers		

*Not registered for use in California.

NOTE: Apply only in combination with EPA registered rates of broad-spectrum seed treatment fungicides.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool dry location. Do not store in direct hot sunlight. Do not store above 90°F for prolonged periods of time. After prolonged storage in intense cold, allow product to return to approximately 75°F before using.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Non-refillable containers (1, or 2.5 gallon): Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

(non-refillable <5 gallons): 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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. Then offer for recycle or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities by burning, if burned, stay out of smoke.

Refillable Containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container for final disposal is the responsibility of the person disposing the container. Cleaning before refilling is the responsibility of the refiller.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OR BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. TO THE EXTENT BY APPLICABLE LAW, ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

AgriStar® is a registered trademark of Albaugh, LLC.