

Specimen Label



Lumialza®

NEMATICIDE SEED TREATMENT

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Lumialza is a biological seed treatment that provides protection against listed plant parasitic nematodes.

Active Ingredient

<i>Bacillus amyloliquefaciens</i> strain PTA-4838*	16.5%
Other Ingredients	83.5%
Total	100.0%

*Contains a minimum of 5.1×10^{10} CFU/gram of active ingredient.

FIRST AID

HOTLINE 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 Corteva Agriscience at 1-800-992-5994 for 24-hour emergency medical treatment information.

PRECAUTIONARY STATEMENTS

EPA Reg. No. 59639-220-352

KEEP OUT OF REACH OF CHILDREN

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt
- Long pants
- Socks and shoes

Mixers/loaders and applicators must wear:

A NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the 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 Controls: When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.607 (d), (e), and (f), the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing/PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product (treated seeds) is soil-incorporated (planted), 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 into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: **coveralls and shoes plus socks.**

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 (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treatment area until seeds have dried or been packaged.

APPLICATION INSTRUCTIONS

RESTRICTIONS

Lumialza must be used only in accordance with use instructions on this label utilizing commercial liquid, slurry or mist-type seed treating equipment, provided that the equipment can be calibrated to accurately and uniformly apply the product to the seed. This product is for both commercial and on-farm application. Do not apply this product in a hopper-box or planter-box at planting time. Always mix product thoroughly before use.

As stated by regulations specified in 40 CFR 153.155, all seed treated with Lumialza must be colored with an EPA-approved dye or colorant to visually distinguish seed is treated with a pesticide. It is mandatory that such dye or colorant be added into the slurry mixture containing Lumialza, prior to application. This regulation is necessary to prevent treated seed from accidental use as a food for man or feed for animals.

SEED QUALITY AND STORAGE OF TREATED SEED

Seed treatments applied to low vigor or poor-quality seed or to mechanically damaged seed may result in loss of seed germination or reduced seedling vigor. To verify seed safety, treat a small portion of seed with the desired slurry mixture (Lumialza alone or in combination with other commercial seed treatment products) prior to treatment of an entire seed lot. Utilize standard seed germination methodologies to determine and verify seed safety. Use proper storage conditions for treated seed. Due to seed quality and seed storage conditions beyond the control of Corteva Agriscience, no claims are made to guarantee the germination of carry-over treated seed.

SEED BAG TAG

The Federal Seed Act requires that the containers of seed treated with Lumialza must be labeled with the following statements:

- This seed has been treated with Lumialza that contains *Bacillus amyloliquefaciens* Strain PTA-4838.
- Do not use for food, feed, or oil purposes.
- Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting.

In addition, the U.S. Environmental Protection Agency requires the following statements on the containers of seed treated with Lumialza:

- Store treated seed away from foods and feedstuffs.
- Do not allow children, pets, or livestock to have access to treated seeds.
- Wear long-sleeved shirt, long pants 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 (such as in row ends).
- Dispose of all excess treated seed by burying seed away from bodies of water.
- Dispose of seed packaging or containers in accordance with local requirements.

APPLICATION DIRECTIONS

Accurate application of Lumialza to seed is required for best performance. Apply as a water-based suspension of adequate volume to distribute product uniformly over seed surface area. The volume of suspension will vary according to seed type and whether companion seed treatments are used.

Thoroughly pre-mix Lumialza with 1/2 to 2/3 of the desired final volume of water to assure a uniform suspension, then add the remaining required water for proper slurry volume, and mix until uniform.

To verify compatibility with other seed treatment products, pre-test tank mixtures to evaluate formulation and proper physical compatibility of products. When tank mixing this product, observe the most restrictive limitations and precautions listed on the tank mix partner labels.

SEED TREATMENT APPLICATION RATES

Corn (Including Field, Sweet, and Pop)	
Pests	Lumialza Application Rate
Dagger Nematode Lance Nematode Needle Nematode* Pin Nematode Ring Nematode Root Knot Nematode Root Lesion Nematode Spiral Nematode Sting Nematode* Stubby Root Nematode Stunt Nematode	0.1 fl oz per 80,000 seeds

*Not registered for use by California.

Cotton (De-linted Only)	
Pests	Lumialza Application Rate
Columbia Nematode* Lance Nematode* Reniform Nematode* Root Knot Nematode Sting Nematode*	0.05 to 0.14 fl oz per 100,000 seeds

*Not registered for use by California.

Soybean	
Pests	Lumialza Application Rate
Reniform Nematode* Root Knot Nematode Soybean Cyst Nematode	0.1 fl oz per 140,000 seeds

*Not registered for use by California.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store in a cool, dry place away from excessive heat.

Store in original container away from feed and food.

Do not store in direct sunlight and keep away from heat sources.

Not for use or storage around the home.

To close package, replace and tighten cap to form an airtight seal.

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 facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Nonrefillable container. 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 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 or by other procedures allowed by State and local authorities.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Corteva Agriscience or the seller. Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent permitted by law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, tort, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Corteva Agriscience be liable for consequential, incidental or special damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Corteva Agriscience or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Manufactured For:
Corteva Agriscience LLC
9330 Zionsville Road
Indianapolis, IN 46268
Made in U.S.A.

Label Code: CD02-647-023

Replaced Label: CD02-647-022

Revisions:

- Updated: PPE respirator requirement and Storage & Disposal Container Handling instructions
- Added: Seed treatment application rates for use on cotton (de-linted) and Made in U.S.A.