



BIOST[®]

2G NEMATICIDE+INSECTICIDE

SPECIMEN LABEL

Active Ingredient:

Inactivated *Burkholderia rinojensis* strain A396 cells and spent fermentation media* 94.46%

Other Ingredients 5.54%

Total 100.00%

* Contains not less than 330 µg of: (1S,4S,7Z,10S,16E,21R)-7-ethylidene-4,21-di(propan-2-yl)-2-oxa-12,13-dithia-5,8,20,23-tetrazabicyclo[8.7.6] tricos-16-ene-3,6,9,19,22-pentone per mL of BIOST[®] 2G NEMATICIDE+INSECTICIDE. (1S,4S,7Z,10S,16E,21R)-7-ethylidene-4,21-di(propan-2-yl)-2-oxa-12,13-dithia-5,8,20,23-tetrazabicyclo[8.7.6]tricos-16-ene-3,6,9,19,22-pentone is an analytical marker in the active substance product.

KEEP OUT OF REACH OF CHILDREN
CAUTION

Refer to inside of label booklet for additional precautionary information and Directions for Use including First Aid and Storage and Disposal.

**BIOLOGICAL NEMATICIDE/
INSECTICIDE SEED TREATMENT**

Manufactured for:
ALBAUGH, LLC
1525 NE 36th Street
Ankeny, IA 50021



**INSECTICIDE/
NEMATICIDE**



ALBAUGH[®]
your alternative

EPA Reg. No. 84059-34-42750
AD030725

FIRST AID	
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 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 by a poison control center or doctor. • Do not give anything to an unconscious person.
If on skin:	<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 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. For non-emergency information on this product, call the National Pesticide Information Center (NPIC) at (1-800-858-7378), 8:00AM to 12:00PM Pacific Time, Monday-Friday. For medical emergencies, call the poison control center at 1-800-222-1222.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION. Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks
- protective eyewear.

Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR 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 manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washables, 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-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 <ul style="list-style-type: none"> • Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwater or rinsate. See the Directions for Use section of this label for application instructions that minimize risk to bees and other beneficial insects, *including those used in Integrated Pest Management (IPM) programs*.

BIOST® 2G NEMATOCIDE+INSECTICIDE should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals. Do not allow product to drift to blooming crops or weeds if bees are foraging. Minimize spray drift away from the target area to reduce effects to other non-target insects.

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 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.

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:

- Protective eyewear
- Coveralls
- Chemical resistant gloves (made from any waterproof material)
- Shoes plus socks

EXCEPTION: If the product is soil incorporated or soil injected, 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.

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

For commercial seed treatment uses: Keep unprotected persons out of treatment area until seeds have dried or been packaged.

For all other non-WPS uses: Keep unprotected persons out of treated areas until sprays have dried.

PRODUCT INFORMATION

BIOST® 2G NEMATICIDE+INSECTICIDE contains inactivated cells of *Burkholderia rinojensis* A396 and spent fermentation media for use against the pests listed in the Directions for Use section. BIOST® 2G NEMATICIDE+INSECTICIDE is a suspension concentrate that can be applied as a seed treatment to control listed pests. BIOST® 2G NEMATICIDE+INSECTICIDE controls or suppresses pests by interfering with feeding activity and/or life cycle of a pest via ingestion of treated plant material.

BIOST® 2G NEMATICIDE+INSECTICIDE controls or suppresses many soil-dwelling pests including listed larvae and nematodes infesting labeled crops and plants.

BIOST® 2G NEMATICIDE+INSECTICIDE can be used in field environments for the control of any labeled pest according to instructions in the Directions for Use section.

INTEGRATED PEST MANAGEMENT

BIOST® 2G NEMATICIDE+INSECTICIDE is a plant disease control and suppression product when used according to label directions for control of labeled pests. BIOST® 2G NEMATICIDE+INSECTICIDE is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of pest-resistant crop varieties, cultural practices, crop rotation, biological control agents, pest scouting and pest forecasting systems aimed at preventing economic pest damage. Practices known to reduce insect pest development should be followed. Consult your state cooperative extension service or local agricultural authorities for additional IPM strategies established in your area.

INSECT AND NEMATODE RESISTANCE MANAGEMENT

Some insect pests are known to develop resistance to products used repeatedly for insect or nematode control. An insect pest management program that includes alternation or tank mixes between BIOST® 2G NEMATICIDE+INSECTICIDE and other labeled insecticides or miticides that have a different mode of action than BIOST® 2G NEMATICIDE+INSECTICIDE is essential to prevent resistant pest populations from developing.

GENERAL USE INSTRUCTIONS

Important – Fill tank ½ to ¾ of desired amount of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding BIOST® 2G NEMATICIDE+ INSECTICIDE. Add the desired volume of BIOST® 2G NEMATICIDE+INSECTICIDE to the mix tank and the remaining volume of water and continue circulation.

SHAKE WELL BEFORE USE

SEED TREATMENT APPLICATION

Do not exceed 20 fluid ounces of BIOST® 2G NEMATICIDE+INSECTICIDE per acre. BIOST® 2G NEMATICIDE+INSECTICIDE can be applied as a seed dressing to the seed pieces at planting or in commercial seed treatments for early season protection of listed pest damage.

Apply BIOST® 2G NEMATICIDE+INSECTICIDE as a water-based slurry with other registered seed treatment insecticides, nematicides and fungicides through standard slurry- or mist-type commercial seed treatment equipment.

Mixing Instructions: Prepare no more mixture than is required for the immediate operation. Agitate the solution continuously during mixing and application. Mechanical mixing is recommended for proper mixing of BIOST® 2G NEMATOCIDE+INSECTICIDE mixtures. For seed treatment, apply 0.1-2.0 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

BIOST® 2G NEMATOCIDE+INSECTICIDE alone: Add ½ of the required amount of water to the mix tank. With the agitator running, add the BIOST® 2G NEMATOCIDE+INSECTICIDE to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the BIOST® 2G NEMATOCIDE+INSECTICIDE has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

BIOST® 2G NEMATOCIDE+INSECTICIDE + tank-mixtures: Add ½ of the required amount of water to the mix tank. Start the agitation before adding any tank mix partners. In general, tank-mix partners should be added in this order: wettable powders, dry flowable formulations, liquid flowable formulations, and emulsifiable formulations. Always allow each tank-mix partner to become completely dispersed before adding the next component. Maintain continuous agitation until all components have been dispersed and throughout the application process.

Note: When using BIOST® 2G NEMATOCIDE+INSECTICIDE in tank-mixtures, all products in water soluble packaging should be added to the tank before any other tank-mix partner, including BIOST® 2G NEMATOCIDE+INSECTICIDE. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank-mix partner to the tank.

If using BIOST® 2G NEMATOCIDE+INSECTICIDE in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations that appear on the tank-mix partner label. No label dosage may be exceeded, and the most restrictive label precautions and limitations must be followed. This product must not be mixed with any product that prohibits such mixing.

For Pre-plant Seed Treatment: 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 treatments and planting. Do not store excess treated seeds beyond planting time.

For Commercial Seed Treatment: This product does not contain dye. All seed treated commercially with this product must be colored with an EPA-approved dye or colorant of a suitable color to prevent accidental use as food for humans or feed for animals. The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: "This seed has been treated with inactivated *Burkholderia rinojensis* A396 cells and spent fermentation media. Do not use for food, feed or oil purposes."

Do not apply this product through any type of irrigation system.

ROTATIONAL CROP RESTRICTIONS

There are no plant back restrictions following application of BIOST® 2G NEMATOCIDE+INSECTICIDE.

IMPORTANT NOTE: SAFETY TO BENEFICIAL ORGANISMS

Prior to treating an entire crop where the release of beneficial insects serves as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF SOIL-DWELLING INSECTS AND NEMATODES

Pre-harvest Interval (PHI): 0 days

*Not labeled for this use in California

- billbug (suppression)*
 - corn rootworm larvae (Mexican, northern, southern, western)*
 - cutworms (suppression)*
 - root aphids (suppression)*
 - root and seed maggots*
 - white grubs (suppression)*
 - wireworms *
-
- awl (*Dolichodorus* spp.) nematodes*
 - dagger (*Xiphinema* spp.) nematodes*
 - pin (*Paratylenchus* spp) nematodes*
 - *Meloidogyne* spp. nematodes*
 - Columbia root-knot nematodes (*Meloidogyne chitwoodi*)*
 - Columbia lance (*Hoplolaimus galeatus*, *Hoplolaimus columbus*) nematodes*
 - lesion (*Pratylenchus* spp.) nematodes*
 - potato cyst nematodes (*Globodera* spp.)*
 - sting (*Belonolaimus* spp.) nematodes *
 - stunt (*Tylenchorhynchus* spp.) nematodes *
 - ring (*Bursaphelenchus* spp.) nematodes*
 - soybean cyst (*Heterodera glycines*) nematodes*
 - stubby-root (*Paratrichodorus* spp.) nematodes*
 - reniform (*Rotylenchulus* spp.) nematodes*
 - needle nematodes (*Longidorus* spp.)*

ROOT AND TUBER VEGETABLES

Potatoes, Sweet Potatoes

Seed Treatment for Potato – Seed Pieces

For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.8 to 1.6 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

Seed Treatment for Sweet Potatoes – Seed Pieces

For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.8 to 1.6 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

LEGUME VEGETABLES (Succulent or Dried)

(Bean (*Lupinus* spp.), Bean (*Phaseolus* spp.), Bean (*Vigna* spp.), Broad bean (fava bean), Adzuki Bean, Asparagus Bean, Black-eyed Pea, Beans, Catjang, Chinese longbean, Chickpea, Cowpea, Crowder Pea, Edible-Pod Pea, English Pea, Fava Bean, Field Bean, Field Pea, Garbanzo Bean, Garden Pea, Green Pea, Guar, Hyacinth bean, Jackbean, Kidney Bean, Lablab bean, Lentils, Lima Bean, Lupins, Moth bean, Mung Bean, Navy Bean, Peas, Pigeon Pea, Pinto Bean, Rice bean, Runner Bean, Snap Bean, Snow Pea, Sugar Snap Pea, Southern Pea, Tepary Bean, Urd bean, Wax Bean, Yardlong Bean, Soybean, Sword bean

Seed Treatment for Legume Vegetables, Excluding Soybeans: For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.2 to 0.6 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

Seed Treatment for Soybeans: For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.3 to 0.6 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

CEREAL GRAINS

Barley, Buckwheat, Corn (field, sweet, popcorn, corn grown for seed), Millet (pearl and proso), Oats, Rice, Rye, Sorghum (milo), Triticale, Wheat, Milo

Seed Treatment for Cereal Grains, Excluding Corn: For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.2 to 0.6 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

Seed Treatment for Corn (Field Corn, Sweet Corn, Popcorn): For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.6 to 1.2 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

NONGRASS ANIMAL FEEDS (FORAGE, FODDER, STRAW, AND HAY)

Alfalfa

Seed Treatment for Alfalfa: For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.2 to 0.8 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

OILSEED CROPS

Canola, Cotton(seed), Rapeseed (canola varieties only), Sunflower (including sunflower grown for seed)

Seed Treatment for Cotton: For early-season protection from plant-parasitic nematodes, early season soil dwelling insects and suppression of thrips and aphids, apply 0.6 to 1.2 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

Seed Treatment for Sunflowers: For early-season protection from plant-parasitic nematodes, early season soil dwelling insects and suppression of thrips and aphids, apply 0.6 to 1.2 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

Seed Treatment for Canola: For early-season protection from plant-parasitic nematodes, early season soil dwelling insects and suppression of thrips and aphids, apply 0.6 to 1.2 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

TURFGRASS AND ORNAMENTAL GRASS

Bluegrass, Bentgrass, Bermudagrass, Dichondra, Fescue, Kikuyu grass, Orchardgrass, *Poa annua*, Ryegrass, St. Augustine, Zoysia, mixtures of grass species and cultivars

Seed Treatment for Turfgrass and Ornamental grass: For early-season protection from plant-parasitic nematodes and early season soil dwelling insects, apply 0.2 to 0.8 fluid ounces of BIOST® 2G NEMATOCIDE+INSECTICIDE per 100 pounds of seed.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Do not freeze.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling:

For plastic containers less than or equal to 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) 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 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 recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. 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, or by incineration.

For refillable containers: Refillable container. Refill this container with BIOS[®] 2G NEMATICIDE+INSECTICIDE only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat rinsing procedure two more times.

WARRANTY

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. To the extent consistent with applicable law, the user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.

CONDITIONS OF SALE AND LIMITED WARRANTY STATEMENT

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 tests 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.

As its sole express warranty, Albaugh, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN THE EVENT OF A BREACH OF THIS LIMITED WARRANTY, ALBAUGH, LLC SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALBAUGH, LLC NEITHER MAKES NOR AUTHORIZES ANY OF ITS AGENTS OR REPRESENTATIVES TO MAKE ANY WARRANTY OF FITNESS OR MERCHANTABILITY, GUARANTY OR REPRESENTATION, EXPRESS OR IMPLIED, CONCERNING THIS MATERIAL. To the extent consistent with applicable law, Buyer assumes the responsibility to handle, use, and store this product in accordance with safety instructions and use directions contained on the label.

Buyer/User purchases this product subject to the foregoing Conditions of Sale and Limited Warranty which, subject to applicable law, may be varied only by a written agreement signed by a duly authorized representative of Albaugh, LLC. If these terms are not acceptable, return all products to the place of purchase, unopened for a full refund.