



NIRVANA[®] BIO

PLANT GROWTH REGULATOR FOR USE ON VEGETABLES, FIELD CROPS, TREE CROPS, SMALL FRUITS AND BERRIES, HERBS, ORNAMENTALS, SOD FARMS, TURF, AND SEED TREATMENT APPLICATIONS

ACTIVE INGREDIENTS:

Indole-3-butyric Acid: 0.45%

OTHER INGREDIENTS: 99.55%

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 detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

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 eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Immediately call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Have a person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

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.

IF INHALED: 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 emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 or your poison control center at 1-800-222-1222.

SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS

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PLANT GROWTH REGULATOR

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Corrosive. Causes irreversible eye damage. Harmful if swallowed, if absorbed through skin or if inhaled. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE) Applicators and other handlers must wear: Goggles, face shield, or safety glasses, long-sleeved shirt and long pants, shoes plus socks.

USER SAFETY REQUIREMENT: 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.

When handlers use closed systems, enclosed cabs, or aircraft 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:

- Wash thoroughly with soap and water 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 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.

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 box 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 unless wearing appropriate PPE. PPE and work clothing 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, Waterproof gloves, 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 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 treated areas until sprays have dried.

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 regulations.

CHEMIGATION INSTRUCTIONS

Apply this product only through sprinkler including center pivot, lateral move, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact your State Extension Service Specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

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 out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone backflow preventer (RPZ) 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 and the fill pipe in the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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 withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the pump motor stops, in cases where there is no water pump, or when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

The pesticide supply tank should be agitated throughout the application of *NIRVANA BIO*. Apply *NIRVANA BIO* at the end of the irrigation period in a sufficient amount of water to allow proper coverage of the plant or crop but not to exceed 12.8 fluid ounces of *NIRVANA BIO* per acre per application.

SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also 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 withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to a point where pesticide distribution is adversely affected.

System must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitate the pesticide supply tank throughout the application of *NIRVANA BIO*. Apply *NIRVANA BIO* at the end of the irrigation period in a sufficient amount of water to allow proper coverage of plant or crop but not to exceed 12.8 fluid ounces of *NIRVANA BIO* per acre per application.

IMPORTANT: Read the entire Directions For Use and the CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY Statement before using this product. If terms are not acceptable, return the unopened product container at once.

PRODUCT INFORMATION

NIRVANA BIO is a plant growth regulator containing proprietary formulation technology; it is effective in increasing the rate of growth and development of plant systems. *NIRVANA BIO* has been developed for use with pesticides, fertilizers and in combination tank mixes containing both. *NIRVANA BIO* is compatible with liquid fertilizer and anhydrous ammonia.

SPRAY MIX COMPATIBILITY

NIRVANA BIO is compatible with a wide range of fertilizer and pesticide products. Good agitation must be maintained for those applications that contain pesticides.

When tank mixing *NIRVANA BIO* with fertilizers or with other pesticides, test compatibility prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop; such as separation, sedimentation, gel formation, etc., do not use this mixture for spraying. Indications of incompatibility usually will appear within 5 to 15 minutes after mixing. In the event of pesticide mixing problems use a compatibility agent, such as Envelop, and re-test the mixture before mixing on a larger scale.

MIXING SEQUENCE

1. Water
2. Fertilizer
3. *NIRVANA BIO*
4. Compatibility agent (if needed)
5. Pesticides

APPLICATIONS WITH SOIL APPLIED FERTILIZER

For in-furrow, banded, side-dressed and broadcast applications through conventional equipment, apply *NIRVANA BIO* in conjunction with and/or following the application of pesticides and/or fertilizers. Best results are obtained when *NIRVANA BIO* is incorporated, injected, or applied in a zone or band in the soil at a minimum depth of two (2) to four (4) inches.

APPLICATIONS WITH DRY GRANULAR FERTILIZERS

NIRVANA BIO may be directly impregnated on dry granular fertilizers. Apply sufficient *NIRVANA BIO* to provide the specified label rates per acre when treated fertilizer is applied. Dry granular fertilizers treated with *NIRVANA BIO* have an indefinite shelf life.

TRANSPLANT SOLUTIONS: Mix 1.8 to 3 fl. oz. with each 100 gallons of transplant solution.

SPECIFIED USE RATES:

Row or Band and Injection Applications: Use *NIRVANA BIO* at the rate of 4.5 to 6.4 fluid ounces per acre.

Broadcast Applications: Use *NIRVANA BIO* at the rate of 6.4 to 12.8 fluid ounces per acre.

TANK MIXTURE COMBINATIONS OF THIS PRODUCT WITH BIFENTHRIN INSECTICIDE (INCLUDING REVEAL, REVEAL ENDURX, BRIGADE, DISCIPLINE 2EC, FANFARE 2EC)

Apply this product as a tank mix partner with bifenthrin insecticide in fertilizer (starter) or water for control of pests as stated on the bifenthrin label. Apply 6.4 ounces of *NIRVANA BIO* per acre and follow the bifenthrin label for specific rates, method of application and timing of application restrictions.

TANK MIXTURE COMBINATIONS OF THIS PRODUCT WITH VOLTAGE INSECTICIDE

Apply this product as a tank mix partner with VOLTAGE insecticide in fertilizer (starter) or water for control of pests as stated on the VOLTAGE label. Apply 12.8 ounces of *NIRVANA BIO* per acre and follow the VOLTAGE label for specific rates, method of application and timing of application restrictions.

CROPS

The active ingredient in *NIRVANA BIO* is exempt from the requirement of a tolerance on all crops. The specific crops listed on this label are representative of use sites. The crops listed are not meant to be an exhaustive list of those crops within any grouping, and should not be viewed as such. All commodities within an established crop group, as classified under 40CFR § 180.41 are considered to be appropriate for this product. For application rates for any given crop, use the specified use rates, unless otherwise indicated under a specific crop list.

VEGETABLES

BRASSICA (COLE) LEAFY VARIETIES: (Broccoli, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Chinese Mustard, Collards, Kale, Kohlrabi, Mustard Greens, Rape Greens)

CUCURBITS: (Cantaloupe, Casaba Melons, Cucumbers, Gherkins, Gourds, Honeydew Melons, Mango Vegetables, Muskmelons, Pumpkins, Summer Squash, Watermelons, Winter Squash)

FRUITING VEGETABLES: Bell Peppers, Chile Peppers, Cooking Peppers, Eggplant, Ground Cherry, Pepinos, Pimentos, Sweet Peppers, Tomatillo, Tomatoes

LEGUMES: Beans including *Lupinus* spp., *Phaseolus* spp. and *Vigna* spp., Broad Beans, Chick Peas, Guar, Jackbean, Lablab Beans, Lentils, Peas, Soybeans.

TANK MIXTURE COMBINATIONS OF THIS PRODUCT WITH AVENGER SYSTEMIC INSECTICIDE FOR USE ON SOYBEANS

Apply this product as a tank mix partner with AVENGER SYSTEMIC insecticide in fertilizer (starter) or water for control of pests as stated on the AVENGER SYSTEMIC label. Apply 12.8 ounces of *NIRVANA BIO* per acre and follow the AVENGER SYSTEMIC label for specific rates, method of application and timing of application restrictions.

LEAFY VEGETABLES (EXCEPT BRASSICA): (Celery, Cress, Endive, Fennel, Lettuce, Orach, Spinach, Swiss Chard)

ROOT, TUBER AND BULB VEGETABLES: Arichokes, Burdock, Carrots, Cassava, Chicory, Garlic, Ginger, Ginseng, Horseradish, Leek, Onion, Parsley, Parsnip, Potato, Radish, Rutabaga, Salsify, Shalot, Sweet Potato, Turnips, Yams

FIELD CROPS:

CEREAL GRAINS: Barley, Buckwheat, Corn (Field, Pop & Sweet), Millet, Oats, Rye, Sorghum (milo), Wild Rice.

COTTON: Apply 4.5 to 6.4 fluid ounces per acre in the seed furrow at planting or side-dressed shortly after planting.

TANK MIXTURE COMBINATIONS OF THIS PRODUCT WITH AVENGER SYSTEMIC INSECTICIDE FOR USE ON COTTON

Apply this product as a tank mix partner with AVENGER SYSTEMIC insecticide in fertilizer (starter) or water for control of pests as stated on the AVENGER SYSTEMIC label. Apply 12.8 ounces of *NIRVANA BIO* per acre and follow the AVENGER SYSTEMIC label for specific rates, method of application and timing of application restrictions.

FORAGE: Alfalfa, Clovers, Grasses, Timothy, Vetch.

RICE: Apply 4.5 to 6.4 fluid ounces per acre at the 3 leaf to tillering stage of plant growth.

WHEAT:

Winter Wheat: Apply 4.5 fluid ounces prior to or at planting followed by 4.5 to 6.4 fluid ounces applied pre greenup and up to Feekes growth stage 5.

Spring Wheat: Apply 4.5 to 6.4 fluid ounces prior to or at planting. If needed, apply an additional 4.5 to 6.4 fluid ounces at Feekes growth stage 5.

TREE CROPS:

CITRUS: Calamondin, Grapefruits, Kumquats, Lemons, Limes, Oranges, Tangelos, Tangerines

NUTS: Almonds, Beech Nut, Brazil Nut, Bitternut, Cashew, Chestnut, Chinquapin, Filberts, Hickory Nut, Macadamia Nut, Pecan, Walnut

POME FRUIT: Apple, Crabapple, Mayhaw, Pear, Quince

STONE FRUIT: Apricots, Cherries (Sweet and Sour), Nectarines, Peaches, Plums, Prunes

SMALL FRUITS AND BERRIES: Blackberries, Blueberries, Boysenberries, Cranberries, Currants, Dewberries, Elderberries, Gooseberries, Grapes, Huckleberries, Olallieberries, Raspberries, Strawberries, Youngberries

HERBS: Allspice; angelica; anise; anise (seed); anise, star; annatto (seed); balm; basil; borage; burnet; camomile; caper buds; caraway; caraway, black; cardamom; cassia bark; cassia buds; catnip; celery seed; chervil (dried); chive; chive, Chinese; cinnamon; clay; clove buds; corander leaf (cilantro or Chinese parsley); coriander seed (cilantro); costmary; cilantro (leaf); culantro (seed); cumin; curry (leaf); dill (dillweed); dill (seed); fennel (common); fennel, Florence (seed); fenugreek; grains of paradise; horehound; hyssop; juniper berry; lavender; lemongrass; lovage (leaf); lovage (seed); mace; marigold; marjoram; mustard (seed); nasturtium; nutmeg; parsley (dried); pennyroyal; pepper, black; pepper, white; poppy (seed); rosemary; rue; saffron; sage; saffron, summer and winter; sweet bay; tansy; tarragon; thyme; vanilla; wintergreen; woodruff; wormwood

OTHER CROPS - NOT LISTED ELSEWHERE ON THIS LABEL: Avocado, Hops, Kiwifruit, Grapes, Bananas, Figs, Peanuts, Pineapple, Mango, Okra, Mushrooms, Papaya, Persimmon.

ORNAMENTALS: Flowers, shrubs, trees, deciduous nursery stocks (trees, shrubs, and flowers) and greenhouse crops and other ornamentals: Apply 4.5 to 6.4 fluid ounces in 100 gallons of water as a drench solution for soil and media, or apply 9 ounces in 100 gallons of water as a directed spray. The applied spray solution should be incorporated into the root zone by irrigation or rainfall.

SOD FARMS: Apply 4.5 to 6.4 fluid ounces per acre with fertilizer and irrigate to incorporate into the soil profile. Apply 4 to 8 times per season.

TURF: Greens, Tees, Fairways, and Lawns: Apply 9 ounces in 100 gallons of water per acre and incorporate into the roots zone by irrigation.

SEED TREATMENT: Using *NIRIVANA BIO* as a seed treatment aids in enhancing germination and early season root development. The application of 0.25 to 1.68 fluid ounces per 100 lbs. of seed is recommended for the following crops: Corn, Cotton, Dry Beans, Peanuts, Rice, Sorghum, Soybeans, Sugar Beets, Wheat.

POTATO SEED PIECES: Use 1/3 to 1/2 fl. oz. of *NIRIVANA BIO* per 100 lbs. of cut seed pieces. Seed pieces should be treated immediately after cutting and apply the material in sufficient water to ensure that they are covered thoroughly. *NIRIVANA BIO* can be mixed with other seed treatments and carriers to ensure that uniform coverage is obtained.

HOPPER BOX: Partially fill the hopper box with a portion of the seed to be treated. Apply the appropriate amount of *NIRIVANA BIO* in sufficient water or other carriers directly on the seed surface. Mix with a stick or a paddle until all seeds are coated. Repeat the procedure until hopper box is full.

DO NOT USE TREATED SEED FOR FOOD, FEED OR OIL PURPOSES.

Treat only those seeds that are needed for immediate use and planting. Do not store excess treated seed beyond the planting time.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Protect from freezing. Store out of direct sunlight.

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:

NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): 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. Offer for recycling, if available.

NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): 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. Offer for recycling, if available.

REFILLABLE CONTAINER: Refill this container with pesticide 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 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 this rinsing procedure two more times.

IN CASE OF EMERGENCY, CALL CHEMTREC: 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of INNVCITIS CROP CARE, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold INNVCITIS CROP CARE, LLC and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, INNVCITIS CROP CARE, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or INNVCITIS CROP CARE, LLC, and Buyer and User assume the risk of any such use. INNVCITIS CROP CARE, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither INNVCITIS CROP CARE, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with state law, **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF INNVCITIS CROP CARE, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF INNVCITIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

INNVCITIS CROP CARE, LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of INNVCITIS CROP CARE, LLC.