



Nature's Biological Protection

BioN Plant Defence

Paecilomyces lilacinus & WHA Fertilizer

Organic Biological Formulation

(Active Ingredient: Paecilomyces lilacinus and Abalone Fish Fertilizer)

APPLICATION SHEET

CAUTION

**KEEP OUT REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE USE**

STORAGE AND DISPOSAL

Store product in original tightly sealed container in a safe, well ventilated cool area. DO NOT store for prolonged periods in direct sunlight. The method of disposal of the container depends on the container type. Please read the storage and disposal instructions featured on the product label that is attached to the container.

SAFETY DIRECTIONS

When using the product or hand-held equipment wear a face-mask, cotton overalls buttoned to the neck and wrist (worn over normal clothing) and elbow length PVC gloves. Wash hands, arms, face with soap and water after use and before eating, drinking or smoking. Ensure gloves and contaminated clothing are washed after each day's use.

FIRST AID

Keep out of reach of children. If poisoning occurs contact the Poisons Information Centre on Phone 131126 (Australia) or Phone 0800 764 766 (New Zealand) or contact a Doctor.

SAFETY DATA SHEET

Additional Information is listed in the Material Safety Data Sheet.

EXCLUSION OF LIABILITY

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material such as the Application Sheet and Safety Data Sheet. CASSA Bio Tec Pty Ltd, as so far as it is lawfully able to do so, accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

IMPORTANT NOTE: READ THIS DOCUMENT THOROUGHLY BEFORE OPENING OR USE OF PRODUCT.



BION PLANT DEFENCE

(BIONEMATICIDE FORMULA)

Paecilomyces lilacinus & WHA Abalone Fish Fertilizer

Organic Biological Formulation

Active Ingredients: Paecilomyces lilacinus & Wild Harvested 100% Australian Abalone

BION PLANT DEFENCE ACTIVE INGREDIENTS	
Paecilomyces lilacinus, Abalone	95%*
Other Ingredients	5%
TOTAL	100%
*Contains at least 5.0 x 10 ⁸ colony forming units per gram dry weight The percentage active ingredient does not indicate product performance and potency.	

GENERAL INFORMATION

CASSA AgriTec's BioN Plant Defence is a broad spectrum, preventative suppression and control formula for the support of plant health. BioN's Bionematicide formulation is a root-colonizing biological defence, that can be used at planting and post planting, providing season-long protection against soil nematodes, soil arthropods and fungal disease. CASSA AgriTec's BioN Plant Defence is an organic biological formulation that contains the naturally occurring micro-organism Paecilomyces lilacinus in combination with Wild Harvested Abalone Liquid Fish Fertilizer which uses 100% local Wild Harvested Abalone. In addition to providing plant defence against nematodes and soil fungi the abalone fish fertilizer improves soil health and increases soil fertility by providing the primary nutrients and active micro-organisms necessary for plants to thrive. CASSA's WHA Soil Enhancing Abalone Fish Fertilizer offers a source of burn-free nitrogen, along with other primary nutrients of phosphorus and potassium. Our naturally occurring organic biological micro-organisms assist in non-toxic organic biological mechanisms of plant defence without the need to apply toxic chemicals.

CASSA Wild Harvested Abalone Liquid Fish Fertilizer uses 100% local Wild Harvested Abalone. Improves soil health and increases soil fertility by providing the primary nutrients and active micro-organisms necessary for plants to thrive. WHA Soil Enhancing Fish Fertilizer offers a source of burn-free nitrogen, along with other primary nutrients of phosphorus and potassium. Unlike synthetic fertilizer, it provides secondary nutrients such as calcium and active micro-organisms. Plants grown in soils abundant in active micro-organisms that receive a balance of primary and secondary nutrients experience strong and steady plant growth leading to vigorous healthy plants that can better withstand disease and pest issues. Our liquid abalone fish fertilizer range are all free-flowing organic liquid. They are easy to decant into mixing and irrigation tanks and are guaranteed to pass easily through all forms of spray equipment, which means no more spray nozzle blockages and wasted downtime. The improved efficiency of our easy flow fertilizers means our products are rapidly absorbed and deliver the nutrients evenly. WHA Liquid Abalone Fish Fertilizer is a completely natural non-toxic organic product that can be used all year round.

All CASSA AgriTec microbes and enzymes are naturally occurring and sourced from nature. They are readily bio-degradable and have not been genetically modified. CASSA AgriTec microbes and enzymes are extracted using a proprietary enzymatic fermentation process avoiding chemical polluting treatments and carbon polluting methods.

FOR CONTROL OF CROP DAMAGE CAUSED BY THE FOLLOWING PESTS

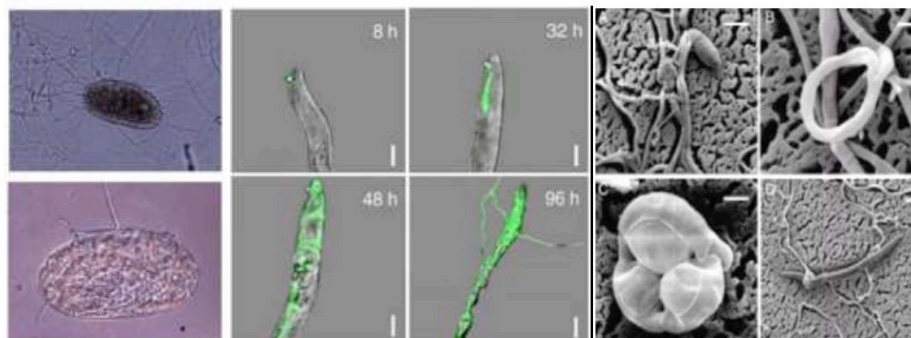
When used as directed the **BioN Plant Defence** will create an environment where plants can control the following:

All nematodes (<i>Dolichodorus</i> species)	Lesion nematodes (<i>Pratylenchus</i> species)
Burrowing nematode (<i>Radopholus similis</i>)	Reniform nematode (<i>Rotylenchulus reniformis</i>)
Citrus nematode (<i>Tylenchulus semipenetrans</i>)	Ring nematodes (<i>Criconemoides</i> , <i>Criconemella</i> and <i>Mesocriconema</i> species)
Cyst nematodes (<i>Heterodera</i> & <i>Globodera</i> species)	Root-knot nematodes (<i>Meloidogyne</i> species)
False root-knot nematodes (<i>Nacobus</i> species)	Spiral nematodes (<i>Helicotylenchus</i> & <i>Rotylenchus</i> species)
Lance nematodes (<i>Hoplolaimus</i> species)	Stem nematode (<i>Ditylenchus dipsaci</i>)
Sting nematode (<i>Belonolaimus longicaudatus</i>)	(<i>Trichodorus</i> and <i>Paratrichodorus</i> species)
Stubby root nematodes	Stunt nematodes (<i>Tylenchorhynchus</i> species)

MODES OF ACTION

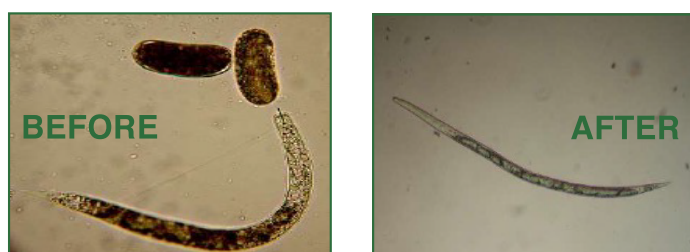
BioN Plant Defence (Bionematicide & WHA Fertilizer Formula)

- + Bacteria Based Active Ingredient that Kills Nematodes
- + Multi-site Mode of Action Against Nematodes Eggs and Juveniles
- + Broad Spectrum Activity Against a Multitude Nematodes
- + Activity by Contact, Ingestion and Exposure
- + Internal Plant Response
- + Economical Solution to Nematodes and Soil Insect Pests
- + Active Against Specific Soil Arthropods



- + Creates a Biochemical and Physical Barrier to Improve Plant Health
- + Broad Spectrum Suppression and Control that Provides Extended Protection
- + Increases Yields and Harvest Quality and Protects against Yield Losses
- + Promotes Stronger, Healthier Roots
- + Ideal for both Planting or Post-Planting Applications
- + Organic and Zero residues - Can be used in Organic Production

MICROSCOPIC RESULT POST BION PLANT DEFENCE FORMULA



INTEGRATED PEST MANAGEMENT (IPM)

For disease resistance management, Cassa AgriTec's BioN Plant Defence can be integrated into an overall disease and pest management strategy whenever aetiology infestation use is necessary. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location. Be sure use of this product conforms to resistance management strategies, which may include rotating and/or tank-mixing with other products with different modes of action.

MIXING DIRECTIONS

- Determine the total volume of water needed for application according to the application tables below.
- Fill the spray tank to approximately 3/4 (three-fourths) of the desired volume with clean water and begin agitation.
- Add the specified amount of BioN Plant Defence (Bionematicide & Abalone Fish Fertilizer Formula to the tank. (Consult application tables below.) Do not allow spray mixture to stand overnight or for longer than 24 hours. Finish filling the tank to the desired volume that provides maximum coverage.
- Maintain agitation throughout the mixing and application process.

TANK MIXING

- Application efficiency may be enhanced by inclusion of a soil wetting agent to help the spores penetrate soil into the root zone.
- **DO NOT** mix BioN Plant Defence with chlorothalonil, mancozeb, triazole or strobilurin fungicides.
- **DO NOT** mix with strong acids, bases or other caustic materials. Maintain a neutral or slightly acidic pH (6-7) in the spray tank.
- Mix BioN Plant Defence only with products for which such mixing is permitted by the label for that product. Test the physical compatibility of unfamiliar mixtures by combining small amounts of the products in the intended proportions and mix order before actual use ("jar test"). Observe the most restrictive of the labelling limitations and precautions of all products used in mixtures.
- For information on which adjuvants and pesticides can be mixed with BioN Plant Defence formula without harming the beneficial fungus it contains, contact your Technical Sales Representative or the Manufacturer.
- For preparation of a tank mix, add the other products first. If the other products are likely to cause foaming, however, add them after filling up the tank to the desired volume of water. Then add BioN Plant Defence Formula.

CROPS	APPL Time	APPLICATION INSTRUCTION
<p>Fruiting vegetables</p> <p>Tomato, Tomatillo, Peppers (all types) Eggplant</p> <p>Leafy vegetables Arugula, Head and Leaf Lettuce Spinach (all types), Celery (all types), Corn salad, Cress (all types), Endive, Radicchio and Rhubarb</p>	<p>Application to field soils before planting or transplanting</p>	<p>Apply at the rate of 7.5-10 litres per hectare. Applications can be made by the following methods:</p> <ul style="list-style-type: none"> - Drenching, drip (trickle) or sprinkler application (see “Instructions for BioN Plant Defence Formula Application through Irrigation Systems”). To enhance penetration of spores into the root zone, consider mixing - BioN Plant Defence Formula with a soil wetting agent. - Surface spray on moist soil with 80 – 100 gallons water per acre followed by incorporation using light tillage. <p>- Surface spray with 20 – 40 gallons water per acre followed by overhead irrigation. Use enough irrigation water to wet the soil into the root zone.</p> <p>- Direct injection to anticipated root depth using shank or other soil injection equipment. Apply with 30 – 40 gallons water per acre.</p> <p>Pre-plant applications may be either broadcast over an entire field or concentrated into planting rows. Apply when soil temperature at 4-inch depth is 15°C or higher. Bioactivity of BioN Plant Defence Formula is greatest between 20°C and 32°C.</p> <p>Apply to nematode-infested (non-fumigated) soil up to 14 days before planting or transplanting. Follow up with applications on the field soil at or after planting or transplanting (see third section below).</p> <p>If the soil has been fumigated recently (within 2 weeks), make the initial BioN Plant Defence Formula application to transplants just before transplanting into the field, as described in the section that follows.</p> <p>Alternatively, apply BioN Plant Defence Formula to fumigated soil at or after planting or transplanting (see third section below).</p>
<p>Brassica Vegetables (Cole Crops) Broccpail Cabbage Broccpail Cauliflower Brussel Sprouts Collards Kale, Mustard Greens Kohlrabi and other brassica</p>	<p>Application to transplants just before transplanting into the field</p>	<p>Apply at the rate of 7.5-10 litres per hectare, mix with of water, and apply as a drench spray to soil or other growth media in transplant flats, pots or other rooting containers.</p> <p>Follow the application with sufficient additional water (such as by drenching or overhead irrigation) to saturate the soil or rooting medium. As needed, follow up with applications at 4- to 6-week intervals at or after transplanting, as described in the section that follows.</p>
<p>Cucurbit Vegetables</p> <p>Watermelon Cantaloupe Muskmelon (including Honeydew Melon and other melons) Cucumbers</p>	<p>Application to field soils at or after planting or transplanting</p>	<p>Apply at the rate of 7.5-10 litres per hectare by one of the following methods:</p> <ul style="list-style-type: none"> - Drip (trickle) application (see “Instructions for BioN Plant Defence Formula Application through Irrigation Systems”). - Banded spray 4” to 6” wide, in-furrow at planting (over or under the seed line). <p>Apply sufficient water during or immediately after applications to thoroughly wet the soil into the root zone.</p> <p>BioN Plant Defence Formula can also be mixed with water and injected directly into the rooting zone using a shank or other injection equipment, preferably on both sides of the plant row.</p> <p>Repeat applications at 4-6 week intervals as needed to control plant-parasitic nematode populations during the crop period. To enhance penetration of spores into the root zone, consider mixing BioN Plant Defence Formula with a soil wetting agent.</p>

CROPS	APPL Time	APPLICATION INSTRUCTION
<p>Fruiting vegetables Root / Tuber vegetables,</p> <p>Beets (except Sugar Beet), Carrot, Cassava, Ginger, Horseradish, Parsnips, Radish, Rutabaga, Taro, Yams and Turnip</p> <p>Onions, Garlic and other Bulb Vegetables</p> <p>Strawberry, Artichoke, Pineapple Tobacco, Herb & spice crops</p>	<p>Application to field soils</p> <p>before planting or transplanting</p>	<p>Apply at the rate of 7.5-10 litres per hectare, Applications can be made by the following methods:</p> <ul style="list-style-type: none"> - Drenching, drip (trickle) or sprinkler application (see “Instructions for BioN Plant Defence Formula Application through Irrigation Systems”). To enhance penetration of spores into the root zone, consider mixing BioN Plant Defence Formula with a soil wetting agent. - Surface spray on moist soil with 40 – 100 gallons water per acre followed by incorporation using light tillage. - Surface spray with 20 – 40 gallons water per acre followed by overhead irrigation. Use enough irrigation water to wet the soil into the root zone. - Direct injection to anticipated root depth using shank or other soil injection equipment. Apply with 30 – 40 gallons water per acre. <p>Pre-plant applications may be either broadcast over an entire field or concentrated into planting rows.</p> <p>Apply when soil temperature at 4-inch depth is 15 °C or higher. Bioactivity of BioN Plant Defence Formula is greatest at soil temperatures between 20°C and 32°C. Apply to nematode-infested (non-fumigated) soil up to 14 days before planting or transplanting.</p> <p>Follow up with applications on the field soil at planting or transplanting (see third section below).</p> <p>If the soil has been fumigated recently (within 2 weeks), make the initial BioN Plant Defence Formula application to transplants just before transplanting into the field, as described in the section that follows...</p> <p>Alternatively, apply BioN Plant Defence Formula fumigated soil at planting or transplanting (see third section below).</p>
	<p>Application to transplants just before transplanting into the field</p>	<p>Apply at the rate of 7.5 litres per hectare, mix with of water, and apply as a drench spray to soil or other growth media in transplant flats, pots or other rooting containers.</p> <p>Follow the application with sufficient additional water (such as by drenching or overhead irrigation) to saturate the soil or rooting medium.</p>
	<p>Application to field soils at or after planting or transplanting</p>	<p>Apply at the rate of 7.5-10 litres per hectare by one of the following methods:</p> <ul style="list-style-type: none"> - Drip (trickle) application (see “Instructions for BioN Plant Defence Formula Application through Irrigation Systems”). - Banded spray 4” to 6” wide, in-furrow at planting (over or under the seed line). <p>Apply sufficient water during or immediately after applications to thoroughly wet the soil into the root zone.</p> <p>BioN Plant Defence Formula can also be mixed with water and injected directly into the rooting zone using a shank or other injection equipment, preferably on both sides of the plant row.</p>

CROPS	APPL Time	APPLICATION INSTRUCTION
<p>Grapevines (Wine Grapes, Table Grapes and Raisins)</p> <p>Berries, Blackberries, Blueberries, Cranberry*, Currants, Elderberry, Gooseberry, Huckleberry, Loganberry, Lingonberry and Raspberries</p> <p>Citrus fruits Pome fruits, Apple, Loquat, Pear and Quince</p> <p>Stone fruits, Apricot, Cherries, Nectarine, Peach, Plums and Plumcot</p> <p>Tree nuts, Almond, Beech Nut, Cashew, Chestnut, Hazelnut, Macadamia Nut, Pecan and Walnut</p> <p>Avocado, Coffee, Pistachio, Pomegranate</p> <p>*For Cranberries: Do not apply when bog or field is flooded</p>	<p>Application for multiple trees, bushes, or vines (full or partial orchard or vineyard application)</p>	<p>Apply at the rate of 7.5-10 litres per hectare by one of the following methods:</p> <ul style="list-style-type: none"> - Drip (trickle) application (see “Instructions for BioN Plant Defence Formula Application through Irrigation Systems”). - Micro-irrigation application (see “Instructions for BioN Plant Defence Formula Application through Irrigation Systems”). Apply through micro-irrigation only when the irrigation is soil directed, the heights of the nozzles are below the canopy and irrigation water does not come into contact with aboveground harvestable food commodities. DO NOT use mist sprayers, which produce small droplets likely to drift. - Injection with 30 – 40 gallons water per acre directly into the root zone using a shank or other injection equipment. - Soil-directed spray with 30 – 100 gallons per acre from stem to drip line (outer reaches of the branches or vines), ensuring foliage and aboveground harvestable food commodities are not contacted by the spray. <p>Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots.</p> <p>Repeat applications every 2-4 months or during root flush, as needed.</p>
	<p>Application for individual trees, bushes, or vines</p>	<p>Apply at the rate of 7.5-10 litres per hectare, and apply as a drench or spray to the soil from stem to drip line (outer reaches of the branches or vines), ensuring foliage and aboveground harvestable food commodities are not contacted by the spray.</p> <p>Five gallons of mix will treat up to 500 square feet of soil, or the area under approximately 5 mature trees or vines.</p> <p>Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots.</p> <p>Repeat applications every 2-4 months or during root flush, as needed.</p>

CROPS	APPL Time	APPLICATION INSTRUCTION
Peanut* (Choose the most appropriate treatment method to fit your operation and management)	Application Pre-plant incorporation prior to bed forming	Apply at the rate of 7.5-10 litres per hectare, minimum of 20 gallons of water per acre to moist soil (if soil is not moist, apply prior to rainfall or pre-plant irrigation) prior to bed forming. Follow up with a pre-pegging application as described below.
	Application Pre-planting bed treatment	Apply at the rate of 7.5-10 litres per hectare in a 6- to 8-inch band on top of the row (on double row peanuts in a 14-16 inch band) and incorporate thoroughly into the top 6 to 8 inches of moist soil (if soil is not moist, apply prior to rainfall or pre-plant irrigation). Follow up with a pre-pegging application as described below.
	Application In-furrow	Apply at the rate of 7.5-10 kgs per hectare, minimum 20 gallons of water per acre into the seed furrow and cover with soil. If possible, apply prior to an at-planting irrigation. BioN Plant Defence Formula may be applied in conjunction with liquid peanut inoculants. Follow up with a pre-pegging application as described below.
	Application At minimum tillage: Post-plant irrigation or rainfall drench	Apply at the rate of 7.5-10 kgs per hectare, minimum 20 gallons of water per acre to moist soil. Water in the product immediately after planting. Follow up with a pre-pegging application as described below.
	Application Post-planting (Pre-pegging) drench	Apply at the rate of 7.5-10 litres per hectare, minimum 20 gallons of water per acre to moist soil. Spray prior to rainfall or irrigation, prior to pegging, and at the base of the plants. The application is only to be soil directed.
Potato / Sweet potato (Choose the most appropriate treatment method to fit your operation and management)	Application Pre-planting application	Apply at the rate of 7.5-10 litres per hectare to potatoes / sweet potatoes planted in 42-48 inch rows. Apply in a 14-inch banded or broadcast spray of 20 – 40 gallons water per acre while forming the rows / planting hills and incorporate thoroughly into the top 4-10 inches of moist soil. Can be applied up to 21 days prior to potato / sweet potato transplant.
	Application Drench at transplanting	Apply at the rate of 7.5-10 litres per hectare Disperse product entirely in a supply tank and add it to transplant water. - Apply with at least 30 gallons transplant water per acre.
Sugar beet	Application In-furrow application at planting	Apply at the rate of 7.5-10 litres per hectare, minimum of 20 gallons of water per acre into the seed furrow and cover with soil.

CROPS	APPL Time	APPLICATION INSTRUCTION
<p>Cotton* (Choose the most appropriate treatment method to fit your operation and management)</p>	<p>Application Pre-plant incorporation prior to bed forming</p>	<p>Apply at the rate of 7.5-10 litres per hectare, minimum of 20 gallons of water per acre to moist soil, apply prior to rainfall or pre-plant irrigation) soil prior to bed forming. Follow up with a post-emergent drench as described below.</p>
	<p>Application In-furrow treatment</p>	<p>Apply at the rate of 7.5-10 litres per hectare, minimum 20 gallons of water per acre into furrow prior to planting cotton. Apply into the seed furrow and cover with soil. If possible, apply prior to an at-planting irrigation. Follow up with a post-emergent drench as described below.</p>
	<p>Application At minimum tillage: Post-plant irrigation or rainfall drench</p>	<p>Apply at the rate of 7.5-10 litres per hectare, minimum 20 gallons of water per acre to moist soil and water in the product immediately after planting. Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots. Follow up with a post-emergent drench as described below.</p>
	<p>Application Post- emergence application at the 6th to 7th true leaf stage</p>	<p>Apply at the rate of 7.5-10 litres per hectare, minimum 20 gallons of water per acre to cotton using shank or other soil injection equipment. Apply when cotton is in the 6th to 7th true leaf stage of growth by placing into the soil alongside the seed furrow. Application equipment can have either one or two coulters and knives per row. Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots. This treatment will extend the suppression of nematode populations when applied during the growing season and after the pre-plant application of a soil fumigant, at-plant application of a contact nematicide or use of a seed treatment nematicide.</p>
<p>Banana and Plantain</p>	<p>Application At planting</p>	<p>For 250 plants: Apply at the rate of 7.5-10 litres per hectare and apply as a drench or coarse spray in the planting hole just before placing the plant in the hole and then around the base of each plant immediately after planting. Use conventional ground application equipment, backpack sprayers or hand- held dippers for these soil-directed applications. Water in with standard (quantity and equipment) irrigation to wet the soil into the root zone, or apply before rainfall.</p>
	<p>Application Established plants, every 4 months</p>	<p>For 250 plants: Apply at the rate of 7.5-10 litres per hectare, Apply suspension in a 6-inch radius to the soil around daughter suckers using conventional ground application equipment or backpack sprayers. Alternatively, apply through micro-irrigation (see “Instructions BioN Plant Defence Formula for Application through Irrigation Systems”). Apply through micro-irrigation only when the irrigation is soil directed, the heights of the nozzles are below the canopy and irrigation water does not come into contact with aboveground harvestable food commodities. DO NOT use mist sprayers, which produce small droplets likely to drift. Water in with standard (quantity and equipment) irrigation to wet the soil into the root zone, or apply before rainfall.</p>

CROPS	APPL Time	APPLICATION INSTRUCTION
Potato Sweet potato (Choose the most appropriate treatment method to fit your operation and management)	Application Pre-planting	Apply at the rate of 7.5-10 litres per hectare to potatoes / sweet potatoes planted in 42- to 48-inch rows. Apply in a 14-inch banded or broadcast spray of 20 – 40 gallons water per acre while forming the rows / planting hills and incorporate thoroughly into the top 4- 10 inches of moist soil. Can be applied up to 21 days prior to potato / sweet potato transplant.
	Application Drench at transplanting	Apply at the rate of 7.5-10kgs per hectare. Disperse product entirely in a supply tank and add it to transplant water. Apply with at least 30 gallons transplant water per acre.
Turf*	Application Established turf, every 2 months	Apply at the rate of 7.5-10 litres per hectare using conventional ground application equipment; follow immediately (while leaves are still wet from application) by overhead irrigation, drenching the product into the root zone with sufficient water. Alternatively, apply the product through an overhead irrigation system. If irrigation is not available, apply the product suspension prior to or during rainfall.

IRRIGATION SYSTEMS INSTRUCTIONS

INSTRUCTIONS FOR BION PLANT DEFENCE FORMULA APPLICATION THROUGH IRRIGATION SYSTEMS

Application through Drip (Trickle) or Sprinkler Irrigation

Apply Cassa AgriTec's BioN Plant Defence Formula only through sprinkler, including centre pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand-move, and drip (trickle), including micro-irrigation, systems and either before planting or to the planted crop/use site at the appropriate rates indicated in the previous table. If applied in this manner, irrigate with enough water to saturate the soil to the depth of the root zone. Addition of an approved soil wetting agent at the manufacturer's specified mixrate may enhance penetration of spores to the rooting zone. For information on which adjuvants and pesticides can be mixed with BioN Plant Defence Formula without harming the beneficial fungus it contains, contact your Technical Sales Representative or the Manufacturer.

Do not apply BioN Plant Defence Formula through any irrigation systems other than those specified above.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration of your irrigation system, you should contact, equipment manufacturers or other experts.

Do not connect an irrigation system application to a public water system unless the label-prescribed safety devices for public water systems are in place.

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

APPLICATION USING PUBLIC WATER SYSTEMS

1. 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.
2. Application systems connected to public water systems must contain a functional, reduced-pressure zone, back flow 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 flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The 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.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
7. 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 pesticides and capable of being fitted with a system interlock.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.
9. Apply the entire treatment during the first 1/3 of the total irrigation.
10. BioN Plant Defence Formula in the supply tank to a concentration appropriate to cover the area to be treated.
11. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply all BioN Plant Defence Formula within 24 hours after mixing with water. Apply all the BioN Plant Defence Formula within 24 hours after mixing.

APPLICATION USING DRIP (TRICKLE) IRRIGATION

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

APPLICATION USING DRIP (TRICKLE) IRRIGATION CONTINUED

3. The 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.
4. The system must contain functional interlocking controls to automatically shut off the injection pump when the water pump motor stops.
5. 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 the point where pesticide distribution is adversely affected.
6. 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 and capable of being fitted with a system interlock.
7. Apply the entire treatment during the first 1/3 of the total irrigation.
8. Mix BioN Plant Defence Formula in the supply tank to a concentration appropriate to cover the area to be treated.
9. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply all BioN Plant Defence Formula within 24 hours after mixing with water.

APPLICATION USING SPRINKLER IRRIGATION

1. 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 back flow.
2. The injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The 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.
4. The system must contain functional interlocking controls to automatically shut off the injection pump when the water pump motor stops.
5. 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 the point where distribution is adversely affected.
6. 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 BioN Plant Defence Formula and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Apply the entire treatment during the first 1/3 of the total irrigation.
9. Mix Cassa AgriTec Bionematicide & Abalone Fish Formula in the supply tank to a concentration appropriate to cover the area to be treated.
10. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply all BioN Plant Defence Formula within 24 hours after mixing with water.

APPLICATION USING MICRO-IRRIGATION

1. 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 back flow.
2. The injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The 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.
4. The system must contain functional interlocking controls to automatically shut off the injection pump when the water pump motor stops.
5. 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 the point where distribution is adversely affected.
6. 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 pesticides and capable of being fitted with a system interlock.
7. Apply only when the irrigation is soil directed, the heights of the nozzles are below the canopy and irrigation water does not come into contact with aboveground harvestable food commodities.
8. Apply the entire treatment during the first 1/3 of the total irrigation.
9. Mix BioN Plant Defence Formula in the supply tank to a concentration appropriate to cover the area to be treated.
10. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply all BioN Plant Defence Formula within 24 hours after mixing with water.

STORAGE AND DISPOSAL

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

BION PLANT DEFENCE FORMULA STORAGE

Store in a cool, dry place, out of direct sunlight, and away from heat sources for up to 18 months. Keep from overheating.

BION PLANT DEFENCE FORMULA DISPOSAL

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

CONTAINER HANDLING

Non-refillable container. Do not re-use or refill this container. Completely empty drum into application equipment. Then offer for recycling if available or dispose of empty drum in a sanitary landfill. Do not burn.

WARRANTY

CASSA AgriTec (A Division of Cassa Bio Tec Pty Ltd) warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the Directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease or pest problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein.

Seller warrants that this product conforms to the description on the label and is reasonably fit for the purposes stated on the label when used and stored in accordance with directions under normal conditions of use. To the extent permitted by state law, this warranty does not extend to use of this product contrary to label directions or under conditions not reasonably foreseeable by the Seller, and Buyer and User assume the risk of any such use. To the extent permitted by state law, Seller disclaims all other warranties express or implied, including any warranty of fitness or merchantability. To the extent permitted by state law, Seller shall not be liable for consequential, special or indirect damages resulting from use or handling of this product and Seller's sole liability and Buyer's and user's exclusive remedy shall be limited to refund of the purchase price. This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified by CASSA AgriTec (A division of CASSA BioTec Pty Ltd).

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