

BuRIZE

VA Mycorrhizal Soil and Root Inoculant^{1,2}
Auxiliary Soil and Plant Substance, Biotic

Statement of Composition:

Glomus intrardices.....1.0 propagule/cc

"NONPLANT FOOD INGREDIENT"

Net Weight: 8.39 lb./gal (0.99 kg/l)

Expiration Date: This product will expire on _____, or six months from the date of shipment.

DIRECTIONS FOR USE

General Information: BuRIZE™ PA is a Vesicular-Arbuscular Mycorrhizal (VAM) soil and root inoculant designed for use under VAM deficient soil conditions such as those soils that have been sterilized by prolonged flooded, or fallowing, or those soils that have been solarized, fumigated, pasteurizes. Likewise this product is of benefit to artificial media, light textured and low organic matter soils. BuRIZE™ PA can also be used following applications of soil pesticides that reduce naturally occurring VAM populations. BuRIZE™ PA is labeled for use on all commercially grown Production Agricultural (PA) commodities; excluding ecto, ecto-endo, and ericodal mycorrhizal plant families. BuRIZE™ PA can be applied prior to planting, at planting or during the growing season. Do not apply BuRIZE™ PA prior to soil sterilization. To achieve best results, this product should be used in an integrated management program and early in the plant's development.

Mixing Instructions: BuRIZE™ is not ready for use until BuRIZE™ PA and BuRIZE™ Dry Concentrate (DC) are mixed. Your packet of BuRIZE™ DC is included with this container and has further mixing instructions. Mixing should take place just prior to application, and at the quantity to be used. Combine ingredients at the concentration's specified by the BuRIZE™ DC label and shake, stir or agitate for five minutes before use. BuRIZE™ PA is ready for use after mixing and when the liquid has turned **green** in color. *Do not use BuRIZE™ PA if liquid is not green in color.*

Compatibilities: BuRIZE™ PA is compatible with a wide range of fertilizers. To assure the compatibility of BuRIZE™ PA with new combinations of fertilizer and other soil conditioners, pour an amount of the contents into a small container in the correct proportions. After a thorough mixing, let stand for 5 minutes. If the combination remains mixed, or can be readily remixed, the mixture is compatible. Tankmixing with fertilizers should only take place at the time of application. Do not store the combination. The following is a short list of incompatibilities: Maintain a pH range of 6-8 by avoiding strongly acidic/basic conditions and biocides such as free ammonia, chlorine and some pesticides. Do not mix with Aqueous Ammonia, Sulfuric Acid, Urea Sulfuric Acid, Phosphoric Acid, Soil Fumigants or Soil Fungicides. When using BuRIZE™ PA after pesticide and fumigant treatments make applications after the toxicant has dissipated (Refer to pesticide label for guidelines). There are, at the time of this printing, no other known incompatibilities.

Handling: Follow appropriate general safety procedures. In case of accidental exposure, flush with plenty of water. Refer to Material Safety Data Sheet (MSDS) for additional information.

SHAKE, STIR OR AGITATE BEFORE USE. When handled in bulk quantities, storage in a cone bottomed tank is recommended to facilitate agitation. When stored in a cone bottomed tank, agitate 10 minutes prior to use. When stored in a flat-bottomed tank, agitate one hour before use. Avoid air blast agitation as foaming may result. If foaming does occur through normal agitation, use an approved food grade defoamer. Agitation is recommended once every month. Storage past the expiration date is not recommended.

APPLYING BURIZE™ PA

BuRIZE™ PA is a Vesicular-Arbuscular Mycorrhizal soil and root inoculant, apply BuRIZE™ PA to deficient soils in close proximity to the seed and newly developed root system. BuRIZE™ PA can be applied via seedline shank injection, drip chemigation, subsoil drip line chemigation, drenching, mixing in the transplant water, or using a soil covering method.

General application guidelines: Use 15-30 gallons per broadcast acre equivalent early in the growing season, or as needed. See the placement specific guidelines below (Table 1) for further placement efficiency guidelines. As this product is only of benefit to plant roots: *Applications of high placement accuracy will allow lower rates, while low placement accuracy will necessitate a higher rate (see General Rates For Application).*

Soil Moisture: Application should be made under "good seedbed conditions". This includes thorough cultivation of the soil and pre-irrigation to 50 to 75% soil moisture conditions. Soil moisture can be estimated by squeezing a handful of soil into a ball. If the ball holds its shape and then easily breaks up, moisture is generally within this range.

Environmental factors: BuRIZE™ PA is sensitive to ultraviolet light. BuRIZE™ PA should be applied using a subterranean technique or in sufficient water to move the product off the soil surface and into the plant root zone. To get the optimum results from BuRIZE™ PA, apply when the soil is between 50 and 100 degrees Fahrenheit.

Note: The use of BuRIZE™ PA may affect crop nutrient response through increased root surface area. Utilize soil and tissue testing to determine nutrient needs. Caution should be exercised when applying BuRIZE™ PA with high salt fertilizers to prevent "fertilizer salt" induced phytotoxicity. Where fertilizer salts are the combination of Nitrogen, Potassium and metal salts, do not exceed 5 lb. of total salt on the seed and/or 10 lb. of salt per inch away from the seed. Where warranted, adjust fertilizer rate and replace with a maximum of a 1:1 ratio of up to 30 gallons of BuRIZE™ PA/acre/application.

General Rates For Application:

Broadcast rates for BuRIZE™ PA can be reduced in field grown crops in the following ways: Shank injection, banded, in furrow sprays, soil covering methods, layby, drench, in the transplant water, or by drip chemigation. Means to calculate rates will be elaborated on below. However, the following table gives one an idea of what rates are usually applied per total acre equivalent:

Table 1.		
Treatment Method	Field/Row Crops Gallons per acre	Tree/Vine Crops Gallons per acre
Broadcast	30	30
Sidedress	8-10	10-15
Micro-irrigation	5-8	5-8
Transplant	3-5	3-8
On seed	3-5	-
Under seed	3-8	-

Banding: For banded (shank injection, band drench or seedline dribble) applications the treatment area actually is the area covered by the band, not the total cropland planted. Some application recommendations are based on treating in-the-row and these rates are generally specified as liquid amounts of product per

certain row length. Others express rates as amount per treated acre, which means the total area treated with the product. If rates are expressed as amount per treated acre and banded applications are used, the amount of product used will be proportionately less. The following formula can be used to calculate the amount of BuRIZE™ PA needed per acre of crop when banded applications are made:

$$\begin{array}{rcl}
 \text{Band width in inches} & & \text{Broadcast rate/A} & & \text{Total amount needed} \\
 \text{-----} & \times & \text{-----} & = & \text{-----} \\
 \text{Row spacing in inches} & & \text{per number of} & & \text{Per one acre of field} \\
 & & \text{acres in field} & &
 \end{array}$$

Drenching Method: Apply BuRIZE™ PA in sufficient water or fertilizer to move BuRIZE™ PA off the soil surface and into the root zone, but not beyond. See band application calculations for instructions on calculating the amount of product to apply.

Soil Coverage Method: At planting time apply 15 gallons of BuRIZE™ PA per acre. Please reference the banding application notes listed above concerning band application calculations. Apply the specified dosage to the soil around the seed and to the covering soil as it fills in the furrow. The product should be below the seed as much as possible, with the exception of potatoes where it should generally be above the seed piece.

MICRO SPRINKLER OR DRIP IRRIGATION SYSTEMS

Chemigation Application Guidelines: Apply 15-30 gallons of BuRIZE™ PA per acre depending on the crop, depth of application, and water holding capacity of the soil. For proper application:

1. Determine the area (length x width) to be treated, divide by the number of acres and multiply by the rate per the number of acres to be treated. This number is the total gallons of BuRIZE™ PA needed to treat the field or irrigation block.
2. BuRIZE™ PA can be safely metered into drip systems. Determine the amount of water needed to saturate the root zone (0.5" to 1.25" of water), divide this by the time needed to apply the necessary water. This number is the time required to make the application of BuRIZE™ PA.
3. Divide the number of gallons from Step 1 by the treatments time in Step 2. This number is the application rate of BuRIZE™ PA per unit of time. Apply BuRIZE™ PA at this treatment rate until desired application rate has been reached.

Drip Chemigation Calibration Instructions: During pre-irrigation check drip tape for uniform distribution (See calibration information below) and repair if necessary. Once the system is calibrated add the amount of BuRIZE™ PA required for treatments as calculated above, or generally 3-8 gallons per total treated acre, to the middle third of the irrigation set. Follow these guidelines:

Step-by-Step Instructions

- Each run of the irrigation system must be calibrated separately to determine the time it takes water to move through the system and to make sure all emitters are putting out the same amount of water.
- Before starting to calibrate, operate the system until all emitters are putting out equal flow rates or until the system is operating at full pressure.
- Only pressure injection or venturi equipment is recommended.
- Determine the area to be treated in each irrigation run.
- For calibration, substitute a concentrated detergent or a soluble fertilizer in the injection tank. The detergent will bubble as it leaves the emitters. The time period over which bubbles occur should be checked for both the closest and farthest emitters. If a soluble fertilizer is used, measure the time intervals with a salt bridge.
- If the period of detection of the indicator solution between the emitters are within two minutes of each other, comparable coverage will be obtained. If they are not, make adjustments to dilution ratio, using more or less water per part BuRIZE™ PA or adjust the injector to a slower or faster rate.
- Once the system is calibrated, dilute the needed amount of BuRIZE™ PA with water using a minimum of 5 parts water/fertilizer solution to 1 part BuRIZE™ PA.
- Do not begin to inject BuRIZE™ PA into the system until all emitters are producing equal flow rates, or until the system is at full pressure.
- Inject BuRIZE™ PA into the system in the middle of the irrigation set of a 1/2 - 1 inch of irrigation water.

With at

least 1/4" of additional water to move product off of the surface.

CROPS THAT CAN BE TREATED WITH BURIZE™ :

Below is a partial list of the agricultural plants that can be treated with BuRIZE. For a listing of nursery, turf and ornamental plants refer to the BuRIZE NTC label:

Alfalfa	Carrot	Currant	Mango	Pecan	Strawberry
Almonds	Cassava	Date Palm	Maple, All	Pepper, All	Stone fruit, All
Apples	Cedar	Eggplant	Melon, All	Pigeon Peas	Sudan Grass
Apricot	Celery	Fescue	Millet	Pineapple	Sugar Cane
Artichoke	Cereal Grains, All	Fig	Oil Palm	Pistachio	Sugar Maple
Asparagus	Cherry	Garlic	Okra	Plum	Sunflower
Avocado	Chick pea	Grapes, All	Olive	Poplar	Sweet Potato
Banana	Chili, All	Grapefruit	Onions	Potato	Tea
Barley	Citrus, All	Grass family	Orange	Prunes	Tobacco
Basil	Clover	Honey dew	Passion Fruit	Raspberry	Tomato
Bayberry	Coconut Palm	Jjoba	Papaya	Redwood	Walnut
Beans, All	Coffee	Kiwi	Peach	Rice	Watermelon
Blackberry	Corn	Lemon	Peanut	Russian Olive	Wheat
Brazil. RubberTree	Cotton	Lettuce	Pear	Rye	Yam
Bulbs, All	Cowpeas	Lentil	Peas, All	Soybeans	
Cactus	Cucumber	Leek		Squash, All	
Cantaloupe					

Do not use BuRIZE™ PA on these plant families:

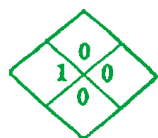
Some plant families do not become colonized successfully by the endomycorrhizal fungus even in the most favorable growing conditions. The following lists are plant families, and examples for each:

- Betulaceae (Birch)
- Caryophyllaceae (Carnation)
- Cruciferae (Broccoli, Cauliflower, Turnip and Mustard)
- Ericaceae (Blueberry, Cranberry, Heath, Rhododendron and Azalea)
- Juncaceae (Rush)
- Orchidaceae (Cattleya, Orchid and Phalaenopsis)
- Proteaceae (Protea)
- Brassica (Cabbage)
- Chenopodiaceae (Beet and Spinach)
- Cyperaceae (Sedge)
- Fagaceae (Beech, Oak)
- Myrtaceae (Eucalyptus)
- Pinaceae (Pine, Fir and Spruce)
- Salicaceae (Willow)

STORAGE AND DISPOSAL:

Storage: Store Dry Concentrate packets in a cool dry place out of the sun. Although not necessary, storage between 40 to 70 degrees Fahrenheit will extend the products potency. BuRIZE™ PA should not be allowed to freeze. Keep containers tightly closed when not in use.

Container Disposal: Triple rinse (or equivalent), then puncture and dispose of in accordance with all local, state and federal guidelines.



Manufactured by:
Bio Scientific, Inc.
 4405 S. Litchfield Rd., Avondale, AZ 85323
 1-800-USA-BIO1



Net Contents _____ gal (_____l)

Lot No. _____

Revision Date: 8/3/97

Version 6

1 "BuRIZE is the trademark of BioScientific, Inc.

2 "With Mycorise inside"

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use contrary to such directions. Seller makes no other warranty of representation of any kind, expressed or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of the seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Any controversy of claim arising out of, or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgement upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.