

PHC[®] Grape & Berry Root Dip

PHC[®] Grape & Berry Root Dip is used as a preplant root dip to inoculate bareroot and containerized grapes and berries with beneficial mycorrhizal fungi and rhizosphere bacteria prior to field planting or potting. It contains four superior species of endomycorrhizal fungi that will colonize the roots of all grapes and berry species under a broad range of growing conditions. The microbes in PHC[®] Grape & Berry Root Dip are mixed with natural yucca, seaweed and humate. It also contains six species of free-living rhizosphere bacteria that together fix nitrogen and solubilize phosphorus. **PHC[®] Grape & Berry Root Dip:**

- Improves absorption of water and minerals from the soil
- Introduces beneficial mycorrhizal fungi and bacteria
- Improves survival by minimizing "transplant shock"
- Increases endurance and growth of difficult-to grow plants
- Helps plants mitigate adverse environmental stresses such as drought, salinity, and extremes of soil pH

DIRECTIONS FOR USE

Combine PHC[®] Grape & Berry Root Dip and water in a bucket or pail and mix 3-5 minutes into a slurry with a consistency of a heavy gravy. Before planting, dip the seedlings into the mix so that the roots are coated with gel. For container seedlings, gently shake the excess loose rooting medium from the roots and dip roots in the mix. Transplant as soon as possible after dipping. Try to outplant on field sites within one to two weeks of rainfall.

APPLICATION RATES

| Rate per Packaging Size | Water Volume | Average 2-0 Trees |
|-------------------------|--------------|----------------------------|
| 3 ounce bag | 1/2 gallon | Treats up to 100 seedlings |
| 15 ounce bag | 2.5 gallons | Treats up to 500 seedlings |

COMPATIBILITY

Soil pH: The fungi in this product were chosen based on their ability to survive and colonize plant roots in a broad soil pH range of 3 to 9.

Fungicides: Some fungicides can have a detrimental effect on mycorrhizae. Soil application of any fungicide is not recommended for two weeks before or after seedling treatment. Foliar applications of non systemic fungicides should pose no problems. Systemic fungicides, like Bayleton, should not be used for three weeks before or after product use.

Herbicides and Insecticides: Do not normally interfere with mycorrhizal fungal development.

STORAGE/SHELF LIFE

This product is stable in cool, dry storage conditions. See expiration date on package.

MYCORRHIZAL FUNGAL INOCULANT FOR GRAPE AND BERRY SEEDLINGS

GUARANTEED ANALYSIS OF SOIL/PLANT AMENDING INGREDIENTS

| | |
|---|----------------------|
| Ectomycorrhizal Fungi | 95 Million spores/Lb |
| 95 Million spores/Lb <i>Pisolithus tinctorius</i> | |
| VA Endomycorrhizal (VAM) Fungi | 53,200 spores/Lb |
| 13,300 spores/Lb <i>Glomus clarum</i> | |
| 13,300 spores/Lb <i>Glomus etunicatum</i> | |
| 13,300 spores/Lb <i>Glomus intraradices</i> | |
| 13,300 spores/Lb <i>Entrophospora columbiana</i> | |
| Rhizosphere <i>Bacillus spp</i> | 2.7 Billion cfu/Lb |
| 450 Million cfu/Lb <i>Bacillus licheniformis</i> | |
| 450 Million cfu/Lb <i>Bacillus megaterium</i> | |
| 450 Million cfu/Lb <i>Bacillus polymyxa</i> | |
| 450 Million cfu/Lb <i>Bacillus subtilis</i> | |
| 450 Million cfu/Lb <i>Bacillus thuringiensis</i> | |
| 450 Million cfu/Lb <i>Paenibacillus azotofixans</i> | |
| SOIL/PLANT AMENDING INGREDIENTS.....% by Weight | |
| Humates (derived from Leonardite).....25.8% | |
| 16.5% Humic Acids | |
| Formononetin | |
| 0.1% | |
| MICROBIAL NUTRIENTS | |
| 6.5% | |
| 25.9% Kelp Meal (derived from <i>Ascophyllum nodosum</i>) | |
| 1% Maltodextrin | |
| 0.7% Citric Acid | |
| 0.6% Dried Yucca pulp (derived from <i>Yucca schidigera</i>) | |
| 0.3% Yeast Extract | |
| INERT INGREDIENTS | |
| 45.6% | |
| 25.8% Polyacrylate polymer gel | |
| 11.7% Greensand | |
| 4.6% Kaolin clay | |
| 3.5% Mineral oil | |

HEALTH AND SAFETY INFORMATION

- In case of allergic reaction(s), treat symptoms and contact physician.
- Avoid breathing dust or spray mist.
- Wash hands after handling.
- In case of ingestion, seek medical attention.
- **Keep out of reach of children.**

PACKAGING

3-oz bags, 10 per box and 15-oz bags, 5 per box

TECHNICAL ASSISTANCE

For technical assistance, call 1-800-421-9051

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