

LANDSCAPING, NURSERY, GREENHOUSE, FORESTRY, AGRICULTURE

# Horta-Sorb®

Contents: 93% Acrylamide copolymer, 7% moisture



## “Water Management Gels”

Horta-Sorb® water management gel polymers are substances that absorb hundreds of times their weight in water. The water absorbed is nearly all available to the plants. Their use results in managing watering in the root zone of the plant significantly reducing watering maintenance and providing for a more constant supply of water to the roots.

Horta-Sorb® polymers have been used in many areas in horticulture and agriculture for nearly two decades now. Initially accepted as a bare root dip in forestry their use quickly spread to landscape, greenhouse and nursery, and numerous agricultural markets. Horta-Sorb® use ranges from bare root gels to hydromulching, transplant amendments to "ice packs" for cut flower and fresh fish shipments.

Horta-Sorb® superabsorbents are the highest quality gel available today and are available in three particle sizes Horta-Sorb® LG (2.0mm to 4.0mm), Horta-Sorb® MD (1.0mm to 2mm), and Horta-Sorb® SM (0.3mm to 0.8mm), each for a particular job and to improve safety and handling.

### Direction For Use

(Detailed rates on label or at <http://www.horticulturalalliance.com>)

#### Landscape Trees & Shrubs

Mix Horta-Sorb® LG evenly with the back fill in the upper 2/3 of planting hole depth leaving untreated the top 1" of soil. Mix at the rate of 1 oz. per inch caliper of tree or foot diameter of ball.

#### Flower Beds

At 1 lb. Per 100 sq. ft. watering is cut in half. Mix Horta-Sorb® MD into the first 3-4 inches of soil.

#### Turf

At 3 lbs. per 1000 sq. ft. watering is cut in half. Broadcast Horta-Sorb® MD, lay sod, sprig or seed. Rate may be 2X provided product is cut into first 2 inches of soil before seeding or rolling sod. 10-50 lbs. per acre. with hydromulch.

#### Home & Garden Interior Plants

**Containerized plants:** The best way to use Horta-Sorb® with containerized plants is to add the Horta-Sorb® MD at the time of potting up the plants at the rate of 1/2 to 2 lbs. per cubic yard depending on how much water you want to hold. If small amounts of potting mix are to be treated hydrate the Horta-Sorb® MD into water at the rate of 2 tablespoons to 1 gallon of water. Let stand for 2-3 hours and pour off any unabsorbed water. Mix the resulting gel at the rate of 1 part gel to three parts soil. For water loving plants or situations like hanging baskets mix at the rate of 1 part gel to 2 parts soil mix. If the plants are already in containers then you must get the gel crystals into the ground with the use of a pencil, or similar object. Poke one hole for each 1" of pot diameter about 2/3 the depth of the container and drop about 1/8 teaspoon of Horta-Sorb MD into each hole pushing the top of the hole shut.

#### Vegetables

Dip the roots of vegetable transplants, before transplanting, into a slurry of Horta-Sorb® SM gel prepared by mixing 1 lb. to 20-30 gallons of water (depends on water quality) into to form a root dip the consistency of a heavy gravy, or syrup. Adjust application rate to achieve this consistency.

#### Banding In Rows

For significant watering savings Horta-Sorb® MD may be banded into the row of the garden where vegetables will be planted in a configuration 8" wide by 6"-8" deep. Use a rate of 1 lb. per 50 feet of length.

### Product Benefits

#### INCREASES SURVIVAL

- Holds WATER for use by roots - over 95% available to the roots.

#### REDUCES TRANSPLANT SHOCK

- Increases available water during, and after, the establishment phase.

#### REDUCES WATERING FREQUENCY

- Absorbs WATER more effectively than any other substance on earth.

#### EXTENDS FLOWERING

- Because plants do not stress as much they remain productive longer.

### Health & Safety

**Inhalation:** If dusty conditions exist, wear a dust mask.

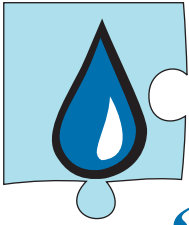
**Ingestion:** Drink large amounts of water, induce vomiting, and seek medical attention.

**Eyes:** Flush with large amounts of water.

**Safety:** Product becomes very slippery when wet.

### Storage & Handling

Store in a dry place. Product shelf life is over five years.



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## "Long Lasting - Economical"

### Nursery/Greenhouse

#### Potting Mix Amendment

Mix Horta-Sorb® MD with potting mix at the rate of 1/2 to 2 lbs. per cubic yard. For highly drained mixes, or mixes that you want to hold even more water (to cut labor/watering) use the higher rate.

#### Bare Root Treatment

**Dipping Roots** - Mix Horta-Sorb® SM 1 lb. to 20-30 gallons of water (depends on water quality) to form a root dip the consistency of a heavy gravy, or syrup. Adjust application rate to achieve this consistency.

**Spraying Roots** - Gel may be pumped and sprayed onto roots using any low volume pumping system (even a washing machine pump/motor works). Remove screens in equipment. Prepare mixture the same as Dipping Roots.

### Forestry & Xmas Tree Growers

There are numerous ways to use Horta-Sorb® in Forestry, namely:

#### Nursery Bed Amendment

Mix in the nursery bed Horta-Sorb® MD at the rate of 1 lb. per 100 sq. feet into the first 2" of soil depth. Cover treated area with 1" untreated earth.

#### Bare Root Treatment

(See Bare Root Treatment under Nursery/Greenhouse)

#### Containerized

Dip the root ball in a gel prepared at the rate of 1 lb. of Horta-Sorb® SM per 20-30 gallons of water to form a root dip. If this is not be practical distribute 1/2 tsp. of Horta-Sorb® MD into the planting hole as the root ball is planted.

### Agricultural

#### Vegetable Transplants

There are many areas to use of Horta-Sorb® when growing vegetables.

#### Greenhouse Media Amendment

Mix Horta-Sorb® MD with potting mix at the rate of 1/2 to 2 lbs. per cubic yard depending on how much water you want to hold.

#### Transplant Root Dip

Amend the planting pit when transplanting with a gel by mixing Horta-Sorb® SM at the rate of 1 lb. per 20 to 30 gallons of water to form a root dip the consistency of a heavy gravy, or syrup. Adjust application rate to achieve this consistency.

### Banding

For significant watering savings Horta-Sorb® MD may be banded into the row of the garden where vegetables will be planted in a configuration 8" wide by 6" - 8" deep. Use a rate of 1 lb. per 50 feet of length.

### Peach and Apple Orchards Citrus Groves and Vineyards

These crops are typically high cost transplants to start with and the use Horta-Sorb® MD can pay good rewards to help the transplant get off to a good start without the constant need to water. Generally watering frequency can be cut by as much as 50%.

### Transplanting

Mix 2 oz. of Horta-Sorb® MD into the immediate area around the root ball when planting in the upper 2/3 of the planting pit. This rate may be doubled or tripled (to reduce watering frequency) so long as the area of planting hole is increased to account for the additional water gel which will form as water is added.

### Bare Root

Dip the root ball in a gel prepared at the rate of 1 lb. of Horta-Sorb® SM per 20 - 30 gallons of water to form a root dip the consistency of a heavy gravy, or syrup. Adjust application rate to achieve this consistency.

**Limited Warranty:** All information contained herein is offered in good faith. There are no warranties of merchantability of fitness for a particular purpose which extend beyond the information contained herein. Our liability is limited to replacement of any product which does not meet these specifications.

### Distributed by:

Horticultural Alliance, Inc. offers Horta-Sorb® mixed with DIEHARD™ mycorrhizal inoculants in a proprietary blend of stimulants to include humic acid, sea kelp, beneficial bacteria, amino acids, vitamins, and growth promoting compounds. Complete details are at: <http://www.horticulturalalliance.com>