

ROOTCUBES® “HOW TO USE” GROWING INSTRUCTIONS

OASIS® Rootcubes® Growing Medium provides an excellent starting environment for vegetative plant cuttings being rooted by the greenhouse propagator, large or small. It's unique open-celled design and water absorbing capacity provides for the optimal balance of air/water exchange necessary for root stimulation. Upon receipt, Rootcubes are sterile, free of pathogenic organisms, and require no further sterilization. Rootcubes medium also provides a safe, efficient, shipping system for the propagator.

Rootcubes medium is available in “sheets” that fit into industry standard 10”x20” trays, or 10 count strips.

CROPS COMMONLY USED IN ROOTCUBES® GROWING MEDIUM

Geraniums New Guinea Impatiens Roses Spathiphyllum Fuchsia Exacum
Hibiscus Poinsettias Perennials Syngonium Aglaonema Woody Ornamentals

PROPAGATION BEDS/BENCH PREPARATION

OASIS Rootcubes growing medium is sterile upon receipt and provides a clean start for vegetative unrooted plant cuttings. Any non-porous bench can be used satisfactorily as a surface for propagating. The excessive wicking action of concrete, wood, and sand beds can be prevented by covering the porous bench/bed with one mil polyethylene film before laying out the Rootcubes medium.

Make sure all greenhouse benches and trays are clean and disinfected before laying out the media. Preventative sanitation should also be carried through to the propagation knives, all containers, floors, and even the hands of the workers. If not, any disease introduced to the propagation area could spread quickly.

On the bench, OASIS Rootcubes can be placed either directly on a clean bench (or film covered), into clean plastic trays, or on top of clean inverted trays for increased air circulation.

WATERING

Before sticking unrooted plant cuttings, the medium must be thoroughly saturated. Water from the top to fully drench the product. Do not soak the product in a tub or similar container as it will float. Randomly cut into several cells in different locations on the bench checking for dry spots inside the medium. If any are found, rewet the entire medium.

PREPARATION OF EBB/FLOOD BENCH SYSTEMS

Growers using ebb and flood bench systems, or similar irrigation methods of watering, should follow these guidelines for best results. The first irrigation should be applied using a drench nozzle to thoroughly wet the medium prior to sticking the cuttings. Dispose of the excess or drained off water from this initial irrigation and use fresh watering with the next irrigation. The second watering can be returned to the central storage tank for recycling.

HANDLING CUTTINGS

If cuttings are being shipped in from a propagation specialist, unpack the unrooted plant cuttings as early as possible to avoid leaf drop and stretching. This will also help to lessen the possibility of diseases developing.

For the propagators taking their own cuttings, first select clean, healthy, vegetative stock plants having the best characteristics for the variety. Select shoot cuttings that are similar in length, caliper, and plant color. Uniform callus formation and root development are directly related to the uniformity of the cuttings taken.

Additional instructions on reverse side



Rooting hormones can be applied to cuttings in order to hasten formation to improve rooting uniformity. Use a puffer-duster to apply the hormone in order to avoid excessive amounts which may injure the cuttings. Use of the dip method is not recommended, as this may increase the possibility of spreading disease organisms.

STICKING CUTTINGS

After the Rootcubes[®] growing medium has been laid out and fully saturated, it is ready to stick the cuttings. Rootcubes come with a pre-punched hole, ready for cutting insertion. Place the cuttings in the tapered holes, with only enough pressure to seat the base of the cutting. Once the cuttings have come in contact with the bottom of the tapered hole, be careful not to lift or pull up the cuttings. This will break the contact between the cutting base and the medium, resulting in poor to no rooting performance.

MISTING PRACTICES

After cuttings are inserted into the medium and overhead mist applied, it is recommended to still continue daily hose watering of the cell cubes first thing in the morning to ensure the growing medium is wet.

Set the mist frequency and duration to provide an even film of water on the foliage with almost no water runoff. This misting practice will keep the cuttings turgid without leaching nutrients from the leaves. Modify the mist cycle to the needs of the cuttings and the prevailing weather conditions. The misting cycle can be restricted to daylight hours, unless dry conditions occur extending it into the night.

Increase the time between mist applications after callus formation, yet do not allow the growing medium to dry out. As mist application is decreased, it is necessary to hose water and/or sub-irrigate the media to keep the media wetted properly.

The total propagation time will vary from 18 to 28 days depending on the cultivar, propagation environment, geographic location, and size of initial cuttings. The last three-to four days in the propagation environment should be under "no mist" to acclimate the cuttings to the growing-on environment.

FUNGICIDE APPLICATION

Use of a fungicide drench with Rootcubes medium during the propagation cycle isn't necessary or recommended. In fact, it could severely inhibit root development. Should foliar diseases develop use of an approved fungicide can be used, but at **only one-half** the label recommendations and apply as a light foliar spray only.

BOTTOM HEAT GROWING TEMPERATURE

For proper callus initiation and root development maintain bottom heat temperatures between 70-80°F.

Use of a bulb thermometer placed in the growing medium is recommended, allowing it to govern the degrees. Often the medium can be 5-7°F lower than air temperatures due to evaporative cooling.

LIGHT INTENSITIES

To protect cuttings from drying out, bleaching foliage due to high light intensity, some reduction in light levels may be necessary. Use of a cheese cloth, shade cloth, or application of a shading compound to the outside structure will aid in controlling excessive light levels.

FERTILIZATION

Begin fertilization of the cuttings at the time of callus formation, 7-8 days after sticking cuttings. Use a complete analysis fertilizer such as 20-20-20. Apply once weekly at 200 parts per million. Make the application late in the day so it is not lost by leaching from misting. In order to ensure fertilizer uptake by the foam, apply the fertilizer by hand with a hose and breaker water nozzle rather than through the mist line. Nutrient supplied through the mist line is available only as a foliar feed.



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GROWER PRODUCTS

