PRODUCT USAGE

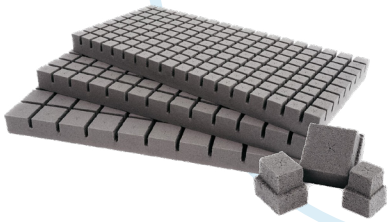
OASIS®

SHEET

RhizoPlug™

Rhizo-: root (origin Greek)

OASIS® RhizoPlug™ Sheet is an engineered growing media with optimal air-to-water ratio that promotes fast, uniform and consistent rooting when started with quality cuttings. This document offers instructions to help growers get the best performance out of OASIS® RhizoPlug™ Sheet.





Instructions for Propagation

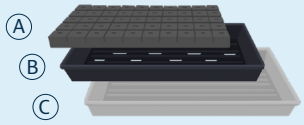
1. Unboxing

Gently pull the paper sleeve in an upward motion to remove the first five sheets. Once the first five sheets are removed, the remaining sheets can be easily extracted.

2. Preparation and Initial Watering

OASIS® RhizoPlug™ Sheets are inert with limited nutrients and buffering capacity. In addition, the product is shipped dry without any moisture. Therefore, it is essential that growers use complete fertilizer during the initial soak and fully saturate the media to prevent any dry spots. The recommended pH and Electrical Conductivity (EC) are 5.6–5.8 and 1.5 mS/cm, respectively. OASIS® RhizoPlug™ Sheets are meant to be used with carrier trays. Complete saturation can be achieved by hand watering or using an automated watering tunnel.

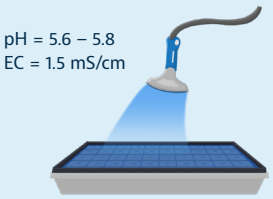
HAND WATERING



Step 1

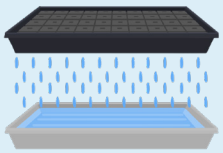
Place OASIS® RhizoPlug™ Sheet into a primary 1020 tray with drain holes, and then into a solid bottom tray.

A. OASIS® RhizoPlug™ Sheet
B. 1020 Primary Tray with holes
C. 1020 Tray without holes



Step 2

Uniformly soak the OASIS® RhizoPlug™ Sheet using a hose fitted with a water breaker. Use 7.5 L (2 gal) of nutrient solution to completely soak the medium.



Step 3

After 1 to 2 min, let the excess nutrient solution drain out freely by removing the primary tray containing OASIS® RhizoPlug™ Sheet and setting it on greenhouse bench.



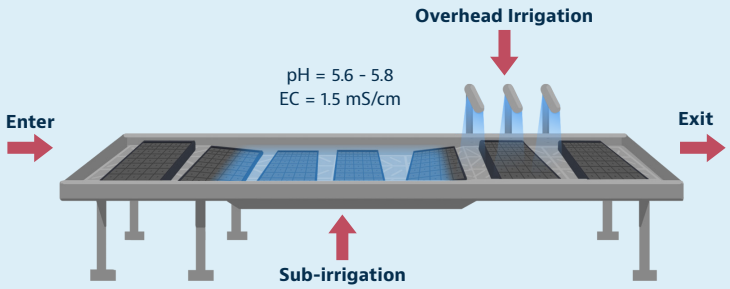
Step 4

Uniformly irrigate the medium overhead using a water breaker for approximately 30 sec with 5 L (1.5 gal) of nutrient solution.

This procedure will allow the medium to take on the pH and EC of the nutrient solution.

AUTOMATED WATERING

For this process, place OASIS® RhizoPlug™ Sheet into a primary 1020 tray with drain holes. Place this tray directly into the watering tunnel. Complete saturation can be efficiently achieved by running OASIS® Rhizo-Plug™ Sheets through a watering tunnel where the water comes from bottom up followed by top down. Reach out to your Territory Sales Manager if you are interested in learning more about the equipment.



After complete saturation, move the OASIS® RhizoPlug™ Sheets in their carrier trays onto a bench, where excess water can drain freely.

To confirm complete saturation, take the weight of the sheet with the carrier tray after watering and refer to the following table. If still uncertain, refer to the Troubleshooting Tips below.

Dry and Wet Weights of OASIS® RhizoPlug™ Sheet

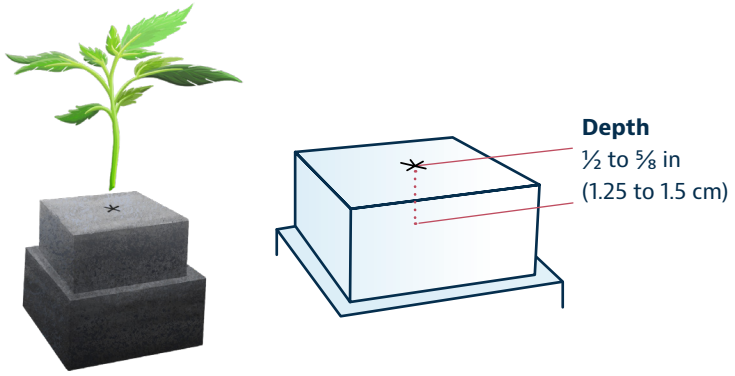
Sheet Configuration	Sheet Dry Weight (gm) Before Saturation	Sheet with Carrier Tray Weight (gm) After Saturation
50CT OASIS® RhizoPlug™ Sheet	65	3900
104CT OASIS® RhizoPlug™ Sheet	60	3800
162CT OASIS® RhizoPlug™ Sheet	60	3800

Note: Weights in above table are average measurements.

3. Inserting the Cuttings

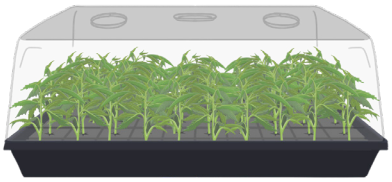
Once the medium is fully saturated, insert the cuttings. OASIS® RhizoPlug™ Sheets come with a universal star dibble which can accommodate thin and thick caliper cuttings. The insertion depth should be approximately ½ to ⅝ in (1.25 to 1.5 cm).

Note: OASIS® RhizoPlug™ Sheets have low density and limited resistance, allowing cuttings to easily penetrate the substrate. Therefore, when sticking, the tendency may be to stick cuttings too deep. The easiest way to avoid this is by holding the cutting ½ to ⅝ in (1.25 to 1.5 cm) above the base of the cutting and inserting it until the fingers touch the medium.

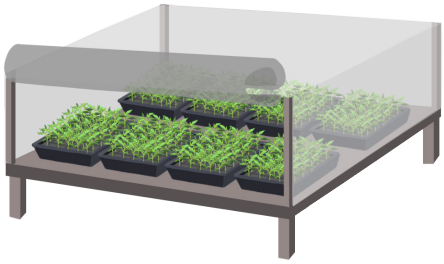


Humid environment

Diffused, low intensity light



Propagation Under Humidity Domes
Small Scale Propagation



Propagation Under Humidity Tents
Large Scale Propagation

4. Rooting Environment

The rooting environment plays a crucial role in propagation success. The cuttings should be placed in a humid environment under diffused light with lower intensity to encourage faster establishment.

Small scale propagation can be done under humidity domes. For large scale, it is recommended to propagate under intermittent mist or humidity tents.

Check the cuttings daily and adjust the environment as required. Once the cuttings are established, water as required and increase the light intensity by removing the domes or providing supplemental lights. Warm temperature can speed up the rooting process and proper air circulation will reduce disease pressure.

During the propagation process, it is important that cuttings are not overwatered or allowed to wilt. Because OASIS® RhizoPlug™ Sheet is an open cellular matrix, overwatering will not occur when used properly. It is important that excess water can drain freely.

Note: The advanced surfactant technology and readily available water in the cellular plug promote faster rehydration of cuttings. This allows earlier reduction in misting frequency, which in turn can cut down disease, pest and pathogen pressure as well as nutrient leaching from the foliage.

5. Fertilizer

Use complete fertilizer with an EC of 1.5 mS/cm during the initial soaking and for the first 10 days. Once the callus is formed, the fertilizer can be increased to an EC of 2 mS/cm.

6. Rooting

Rooting occurs quickly in OASIS® RhizoPlug™ Sheet. Once the cuttings are rooted, water as required and monitor the medium to ensure excessive drying does not occur.

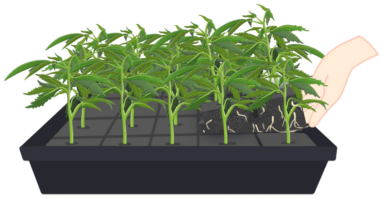
7. Transplant

Ensure the OASIS® RhizoPlug™ Sheet is saturated, then transplant into moist potting media. OASIS® RhizoPlug™ Sheets are designed with etching around the plugs for easy separation. Reach from the bottom of the sheet to pick a group of plugs and separate into individual plugs by using a top-down breaking motion. Thoroughly water after transplant.

Note: Illustrations with crop represent Industrial Hemp.



Ensure the sheet is saturated prior to transplant



Reach from the bottom of the sheet to pick a group of plugs



Use a top-down breaking motion to separate plugs

Troubleshooting Tips

TO MEASURE SUBSTRATE pH AND EC

If needed, use the tilt method to measure pH and EC of OASIS® RhizoPlug™ Sheets.

Tilt Method

1. Carefully tilt OASIS® RhizoPlug Sheet over a container to collect solution.
2. If the sheets are on the drier side and you're unable to collect the solution, irrigate with 500 mL or more deionized water uniformly over the surface. Wait 30 minutes, then collect the solution.
3. Measure pH and EC of the collected solution.



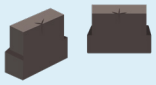
Note: If measuring the pH of unused foam substrate, water in the substrate with DI water first to complete saturation and let it sit 24 hours to equilibrate. Then conduct tilt method to record the pH and EC. Measuring unused foam immediately after watering will result in an artificially low pH.

TO CONFIRM SUBSTRATE SATURATION

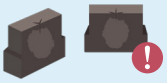
To confirm complete saturation of the substrate, cut open a plug to check for dry spots.



Cut open plug



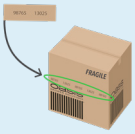
Fully saturated plug



Plug with dry spot

TO TRACK LOT NUMBERS

OASIS® RhizoPlug™ Sheet lot numbers can be tracked via the Julian date and line run number printed on the side of each case.



Storage and Handling

Store product in its original packaging in a cool, dry location out of direct sunlight. Stored properly, this substrate has a shelf life of 2 years from the date of manufacture.

Food Safety

This substrate ships clean and free of pests and pathogens, including food-borne pathogens.

Disposal

Though not biodegradable, this ultra-low-density substrate will degrade after disposal, reducing volume over time. Please check with your local waste disposal facility for end-of-life options.

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