

OASIS

PLUGSHEET

AeroMax™

OASIS

PLUGSHEET

/ AeroSelect™

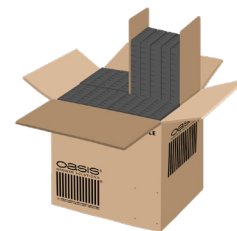
OASIS® AeroMax™ PlugSheet and OASIS® AeroSelect™ PlugSheet are engineered substrates for precision hydroponics that optimize air-to-water ratio to accommodate requirements of specific crops, climates and growing systems. This document offers instructions to help growers get the best performance with OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet, for clean and easy production. (For microgreen production, please refer to Product Usage sheet for microgreens.)



Instructions for Propagation

1. Unboxing

Gently pull the paper sleeve surrounding the first five sheets of OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet in an upward motion. Once the first five sheets are removed, the remaining sheets are easily extracted.



2. Preparation

OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheets are meant to be used with 1020 carrier trays. OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet are shipped dry (saving on shipping costs and extending shelf life). These substrates can be seeded either dry or wet. For automated seeding, it is easier and more practical to seed the substrate dry. Manual seeding can be done wet or dry.

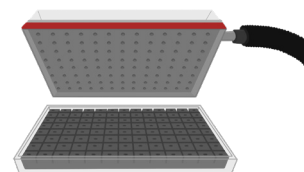
Solid bottom tray

If your primary watering method uses overhead irrigation, use a solid-bottom tray with drain holes.

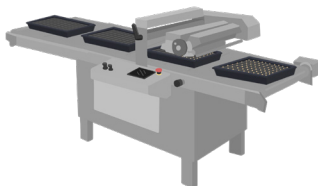


Web-bottom tray

If your primary method uses sub-irrigation, use a web-bottom tray.



Vacuum Seeder



Drum Seeder

3. Seeding

For dry seeding, place the seed(s) in the dibble holes prior to an initial soak. Seeds can be placed manually or using automated equipment (needle, vacuum or drum seeder). Pre-dibbled OASIS® AeroMax™ PlugSheet and OASIS® AeroSelect™ PlugSheet are available in single or multi-seed configurations. (For un-dibbled plain sheets for broadcasting microgreens, please refer to Product Usage for microgreens.) For wet seeding, follow the instructions below to saturate the substrate first.

4. Initial Watering

OASIS® AeroMax™ PlugSheet and OASIS® AeroSelect™ PlugSheet are inert, with no starter nutrient charge. Whether seeding dry or wet, it is critical that growers perform a thorough initial soak using a complete nutrient solution (100 to 125 ppm N) to fully saturate the media and prevent any dry spots. The recommended pH and Electrical Conductivity (EC) are 5.6-5.8 and 1.5mS/cm, respectively. Complete saturation can be achieved by hand watering or using an automated watering tunnel.

To fully saturate the substrate by hand watering, follow these simple steps:

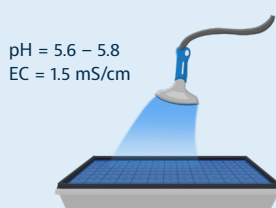
HAND WATERING



Step 1

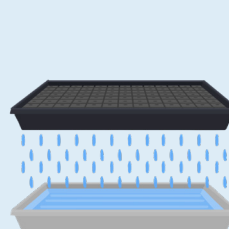
Place OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet into a primary 1020 carrier tray (with drain holes or web-bottom). Then place the 1020 tray into a secondary, solid bottom tray.

- A. OASIS® AeroMax™ or AeroSelect™ PlugSheet
B. 1020 Primary Tray with drainage
C. 1020 Tray without holes



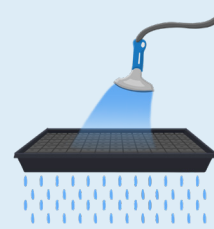
Step 2

Uniformly soak the OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet 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 minutes, remove the primary tray containing OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet from the secondary tray. Let the excess nutrient solutions drain out freely and set the substrate tray on the greenhouse bench.



Step 4

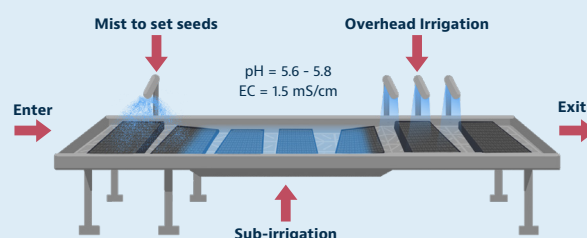
Uniformly irrigate the substrate overhead by using a water breaker for approximately 30 seconds with 5 L (1.5 gal) of nutrient solution.

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

For complete saturation using an automated watering tunnel, follow these instructions:

AUTOMATED WATERING

For this process, place OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet into your primary 1020 tray (with drainage). Place this tray directly into the watering tunnel. Complete saturation can be achieved efficiently by running OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet through a watering tunnel where the water comes from the bottom up, followed by top down. Reach out to your Oasis Grower Solutions Technical Representative if you would like to learn more about the equipment.



After complete saturation, move the OASIS® AeroMax™ PlugSheets or OASIS® AeroSelect™ PlugSheets 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.

Sheet Configuration	Sheet Dry Weight (gm) Before Saturation	Sheet with Carrier Tray Wet Weight (gm) After Saturation
50CT OASIS® AeroMax™ PlugSheet	60	3600
104CT OASIS® AeroMax™ PlugSheet	55	3500
162CT OASIS® AeroMax™ PlugSheet	55	3500
276CT OASIS® AeroMax™ PlugSheet	70	4300
50CT OASIS® AeroSelect™ PlugSheet	60	3800
104CT OASIS® AeroSelect™ PlugSheet	55	3700
162CT OASIS® AeroSelect™ PlugSheet	55	3700
276CT OASIS® AeroSelect™ PlugSheet	70	4500

Note: Sheet dry weights and wet weights are average measurements.



- ✓ **Place in germination chamber or cover to keep dark with temps ~68°F.**

5. Top Dressing and Germination

With OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet, vermiculite top dressing is not required with lettuce and certain herbs, including basil, watercress and arugula. However, with crops such as kale, cilantro and spinach, vermiculite top dressing promotes uniform germination and growth.

- ① After seeding, saturation, and appropriate top dressing, place OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet in a germination chamber or cover to keep dark in temperatures around 68°F (20°C).
- ② At 48 hours after initiation of the germination process, remove from chamber. (If trays are left in darkness longer than 48 hours, young plants may begin to stretch.) Provide supplemental lighting or shade as required.

6. Irrigation During Seedling Production

Use a complete nutrient solution (100 to 125 ppm N) with an EC of 1.5mS/cm and pH adjusted to 5.6-5.8 during the initial soaking and subsequent irrigation events. The following is a general irrigation schedule that can be adjusted to fit your specific crop, season and growing conditions.

Day	Irrigation Schedule
Day 1	Seeding/Initial Watering. Provide dark treatment.
Day 2	Irrigation not required. Keep under darkness.
Day 3-5	Remove from darkness and irrigate. Overhead irrigation: Apply ~2 L (2 QT) uniformly over the substrate. Sub-irrigation: Irrigate until saturation.
Day 4-5	Irrigate daily. Overhead irrigation: Apply ~2 L (2 QT) uniformly over the substrate. Sub-irrigation: Irrigate until saturation.
Day 6	Irrigate as required until young plants are ready for transplant.

Note: Regular irrigation right after germination (Day 3 onward) washes the seed coat away sooner, increasing exposure to light and speeding the growth process.

7. Transplant

Young plants are ready for transplant into NFT (Nutrient Film Technique), DWC (Deep Water Culture) or Aeroponic systems when they have at least two true leaves and roots penetrating from the bottom of the substrate. When transplanted, the bottom surface of the substrate must be in direct contact with the nutrient solution unless other watering procedures are in place to prevent the substrate from drying out.

OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet are designed with deeper etching on the top and shallower etching on the bottom to allow for clean separation of individual plugs. To separate, reach from the bottom of the sheet to pick a group of plugs. Then separate into individual plugs by using a top-down breaking motion.



- ✓ **Reach from the bottom of the sheet and pick a group of plugs.**



- ✓ **Use a topdown breaking motion to separate plugs**

The following is a general transplant schedule for lettuce propagated in OASIS® AeroMax™ PlugSheet or OASIS® AeroSelect™ PlugSheet. Timelines may change depending on the growing environment.

Configuration	Time to Transplant
276CT OASIS® AeroMax™ or AeroSelect™ PlugSheet	12 days after seeding
162CT OASIS® AeroMax™ or AeroSelect™ PlugSheet	15 days after seeding
104CT OASIS® AeroMax™ or AeroSelect™ PlugSheet	18 days after seeding
50CT OASIS® AeroMax™ or AeroSelect™ PlugSheet	21 days after seeding

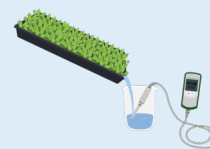
Note: OASIS® AeroMax™ PlugSheet and OASIS® AeroSelect™ PlugSheet are easier to handle if not completely saturated at the time of transplant. In preparation, reduce or eliminate your young plant irrigation the day before transplant.

Troubleshooting Tips

TO MEASURE SUBSTRATE pH AND EC

If needed, use the tilt method to measure pH and EC of OASIS® AeroMax™ PlugSheets or OASIS® AeroSelect™ PlugSheets.

- Tilt Method**
- ① Carefully tilt OASIS® AeroMax™ PlugSheets or OASIS® AeroSelect™ PlugSheets 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.



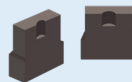
Note: If measuring the pH of unused foam substrate, water in the substrate first to complete saturation and let it sit 24 hours to equilibrate. Then conduct tilt method to record the pH and EC. Measuring unused foam immediately after watering will result in an artificially low pH.

TO CONFIRM SUBSTRATE SATURATION

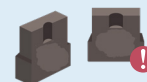
To confirm complete saturation of the substrate, cut open a plug to check for dry spots.



Cut open plug



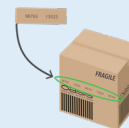
Fully saturated plug



Plug with dry spot

TO TRACK LOT NUMBERS

OASIS® AeroMax™ PlugSheets or OASIS® AeroSelect™ PlugSheets lot numbers can be tracked via the Julian date and line run number printed on the side of each case.



Storage and Handling

Store products in original packaging in a cool, dry location out of direct sunlight. Stored properly, these products have a shelf life of 2 years from the manufacture date.



Food Safety

These food-safe products ship clean and free of pests and pathogens, complementing robust food safety programs.



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.