

GROWER'S NOTES

BY PAPERPOT CO.



Amaranth Microgreens

CROP DATA:

AMARANTH MICROGREENS	Paperpot Trays (12" x 24")	Standard Trays (10" x 20")
RECOMMENDED CULTIVARS	Red Garnett	Red Garnett
DRY GRAMS PER TRAY	30 g	23 g
GERMINATION TIME (STACKED)	3-4 days	3-4 days
DAYS TO MATURITY	12 days *time from seed to harvest	12 days *time from seed to harvest
TARGET CROP YIELD PER TRAY	210 g (+/-)	160 g (+/-)
HARVEST UNIT	105 g of product (+/-) per clamshell	105 g of product (+/-) per clamshell
HARVEST UNITS PER TRAY	2 (+/-)	1.5 (+/-)
PRICE PER UNIT	\$17	\$17
REVENUE PER TRAY	\$34 (+/-)	\$ 25.50 (+/-)

**NOTE: All above crop data is courtesy of Scintilla Farms and is based on their actual numbers growing in Paperpot Germination Trays (scaled down by 24% to provide numbers for growers using 1020 trays)*

SUGGESTED TOOLS & SUPPLIES:

TRAYS	Perforated top trays nested into solid bottom trays (Paperpot trays or 1020's)
GROWING MEDIUM	80% peat moss, 20% perlite or vermiculite (nutrients/compost optional)
SEED SANITIZING	Sanidate 5.0 (1.6 oz to 5 gal. water), or Zerotol 2.0 (20 ml to 2 L of water), or 1:1 white vinegar and hydrogen peroxide
SHELVING	<u>NSF Wire Shelving Racks</u> : 60"x24"x72" fits four Paperpot trays per shelf, 48"x18"x72" fits four 1020 trays per shelf. *Add a 6th shelf to these 5-tier racks to fit five grow shelves, 12" between shelves.
LIGHTING	4' T5 LED Barina Lights - 3 per 24" deep shelf (2 per 18" deep shelf)
VENTILATION	Desktop computer fans (2 per shelf), or standing fan next to rack
HARVEST	Well sharpened kitchen knife
PACKAGING	Clamshells (or plastic bags), farm logo stickers
POST HARVEST	White vinegar, hydrogen peroxide, or Zerotol 2.0 (food grade hydrogen peroxide concentrate), 2 Liter pump spray bottle.

SOIL & TRAY PREPARATION

- The best growing medium consistency for microgreens is composed of fine particulates with even drainage. Too much drainage will lead to dehydrated crops, and too little drainage will lead to fungal issues.
- Clumpy mix can be loosened up by hand when adding to your filling bin. Mix with larger particulates can be sifted through a DIY sifter made from 1/4" wire mesh on a box frame. This can be placed over a wheel barrow or tote to sift our larger material that may inhibit germination.
- When filling trays with growing medium, make sure to spread it evenly in the corners and edges of the tray or microgreens in those areas will become dehydrated and tend to fall over.
- After spreading the growing medium evenly in the tray, use a custom wooden press, or an empty tray to tamp/press the soil, creating a smooth even surface.
- Spray down the growing medium with water prior to seeding.

SEEDING & GERMINATING

- Sprinkle the seeds evenly over the tray, then water generously.
- Seeded trays can be stacked up to six at a time, with an empty seventh tray at the top. Place a 14 lb paver on the top to weight down the trays, encouraging strong stems and vigorous growth.
- Germinating trays do well at 70° and can be stacked in racks with no lights.
- After 3-4 days the sprouts will begin pushing the trays up, and it's important to monitor closely so the stack does not tip over.
- After unstacking the trays, give them a thorough watering.
- Scintilla Farms tip: After unstacking, covering each tray with a black out dome can encourage taller growth for Amaranth. After four days, remove the domes and put the trays under the light.

GROWING & WATERING

- Transfer the trays to the grow racks under the lights, nesting them into the solid bottom trays.
- 16 hours of light per day is recommended for microgreens.
- At this point, watering can be done by lifting the top tray by the thumbhole and pouring water straight into the bottom tray. Paperpot bottom trays have a line that provides a convenient reference point for how much water to add.
- Bottom watering should take place once every morning. If your growing medium does not retain its moisture as long, water once more in the evening.
- Stop watering 24-48 hours prior to harvest to ensure crops are dry and free from excess moisture. This helps greatly to extend the shelf life of the microgreens.

HARVESTING & PACKAGING

- Wash hands thoroughly and/or wear latex gloves before handling greens for harvest.
- Sharpen the harvesting knife each time prior to harvest. To harvest, grab a handful of microgreens and cut just high enough above the growing medium to ensure there isn't any stuck on the ends of the greens.
- Carefully place the greens directly into the clamshells.
- Scintilla Farms tip: place the clamshells into the refrigerator with the lids open for the first 10-15 minutes to avoid build up of moisture (after which they can be closed). This can increase shelf life.

POST HARVEST & TRAY SANITIZING

- Dump the harvested tray's soil and root matter into bins or wheel barrows to be taken to compost.
- Rinse, then spray down the tops and bottoms of the trays with 20ml of Zerotel 2.0 to a 2 Liter pump spray bottle of water, or a 1:1 hydrogen peroxide, white vinegar solution. Allow trays to dry in a rack prior to being reused.