

**Growing Guide for:** Greenhouse Transplants  
**Crop:** Baby Broccoli  
**Botanical Name:** Brassica oleracea  
**Average Seed Count** 5,000–7,000 sds/ounce  
**Seed Forms** Raw Untreated

## GREENHOUSE PLUG PRODUCTION

Approximately 3-5 weeks

### STAGE 1: GERMINATION & RADICLE EMERGENCE

#### 4-8 Days

Sow seeds in disease-free media & cover with coarse vermiculite.

**pH:** 5.5 – 5.8

**EC:** < 0.75 mS/cm

**Humidity:** 100% until radicle emergence, then 40-50%

**Media Temperature:** 70-74°F / 21-23°C

**Moisture:** level 5 (saturated) until radicle emergence, then water to level 4 (wet) and dry to level 3 (moist).

**Notes:** Keep ammonium levels to less than 10ppm, as baby broccoli is sensitive to high salts during this period.

- Cover the seed with coarse vermiculite.

### STAGE 2: STEM & COTYLEDON EMERGENCE

#### 5-7 Days

Place trays in well-ventilated greenhouse.

**pH:** 5.5 – 5.8

**EC:** < 0.75 mS/cm

**Media Temperature:** 62-65°F / 17-18°C

**Moisture:** Alternate between level 4 and 3.

**Light Levels:** 1000-2000 fcs

**Fertilizer:** Once cotyledons fully expand, begin feeding approximately every other watering with a well-balanced calcium/potassium nitrate formulation at 50-75 ppm N.

### STAGE 3: BULKING STAGE

#### 10-14 Days

**pH:** 5.5 – 5.8

**EC:** < 1.0 mS/cm

**Media Temperature:** 62-65°F / 16-18°C

**Moisture:** Alternate between level 4 and 2 (medium) – Seedlings can slightly 'flag', but should not wilt.

**Light Levels:** 1500-2500 fcs.

**Fertilizer:** Feed every 2<sup>nd</sup> or 3<sup>rd</sup> watering with a well-balanced calcium/potassium nitrate-based formulation at 100-150 ppm N.

### STAGE 4: TRANSPLANT OR PLUG SHIPPING STAGE

#### 7 Days

**pH:** 5.5 – 5.8

**EC:** < 0.75 mS/cm

**Media Temperature:** 60-62°F / 16-17°C

**Moisture:** Alternate between levels 4 and 1 (dry) – Seedlings can 'flag', but should not completely wilt.

**Light Levels:** 1500-2500 fcs.

**Fertilizer:** Feed only as needed with a well-balanced calcium/potassium nitrate-based formulation at 100-150 ppm N.

### GROWING ON (FINISHED PRODUCTION)

Approximately 1-2 weeks for packs.

**pH:** 5.5 – 6.2

**EC:** 1.0 mS/cm

**Air Temperature:** 55-60°F / 10-15°C for day and 50-60°F / 10-15°C for night

**Moisture:** Alternate between levels 3 and 1 – Seedlings can 'flag', but should not completely wilt.

**Light Levels:** 2500+ fcs.

**Fertilizer:** Feed approximately every other watering with a well-balanced calcium/potassium nitrate formulation at 150-200 ppm N.

**Plant Height Controls:** The use of chemical plant growth regulators (PGR's) is not recommended on baby broccoli plants. Utilize moisture, temperature, and fertilizer levels to maintain height and stretch control.

**Common Greenhouse Diseases:** Pythium, Rhizoctonia

**Common Greenhouse Pests:** Aphids, Cabbage loopers, Whiteflies, Stem borers, Fungus Gnats

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## OTHER TIPS

- **Plant Height Controls:** The use of chemical plant growth regulators (PGR's) is not recommended on baby broccoli plants. Excessive growth can be controlled, however, through environmental means:
  - Day/night temperature differential (DIF) – Beginning in Stage 3 of plug production, plants can be grown with a negative DIF (day temperature is equal to or cooler than the night temperature) to control height.
  - Nitrogen manipulation – Reducing or withholding nitrogen availability during portions of the watering/fertilizing regime will slow plant growth if needed.
  - Moisture stress – If plant root systems are well-established and fully formed along the sides of the containers, plants can be allowed to dry out more fully before irrigating. Care must be taken, though, to not damage through over-stressing.
- **Greenhouse Diseases:** Pythium and Rhizoctonia can be problems in greenhouses. Good sanitation (through disinfecting and sterilizing equipment and materials) and proper growing culture (like rogueing diseased plants and monitoring greenhouse humidity levels) will aid in keeping plants healthy. As a disease prevention measure, irrigate early in the day to allow plants to thoroughly dry before nightfall.
- **Greenhouse Pests:** Aphids, Cabbage loopers, Whiteflies, Stem borers, Fungus Gnats. Regular, often, and careful inspections for pests are essential in becoming aware of infestations early. Since chemical control choices are more limited for greenhouse use, integrated control measures should be implemented before pest populations become too large.
- **Container Sizes:** Aspabroc is appropriate for sale in the same pot sizes as broccoli. Cell packs can be offered in both early spring and fall for customers to transplant into their gardens. Larger decorative 14-18" patio pots can be planted with 1 ppp of Aspabroc (from 4" pot) and mixed with other spring and fall leafy vegetables and/or ornamentals. Lettuce, arugula, purple mustard, pansies, snapdragons, or violas are all good choices.
- **Garden Care:** Aspabroc is easy to grow and requires little space. First maturity of the central shoots is 50-60 days from transplant. It is important to inform customers that as the first central shoot matures, it should be quickly harvested to encourage optimal side shoot production. Plants will continue producing side shoots for at least four weeks in mild weather.

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