



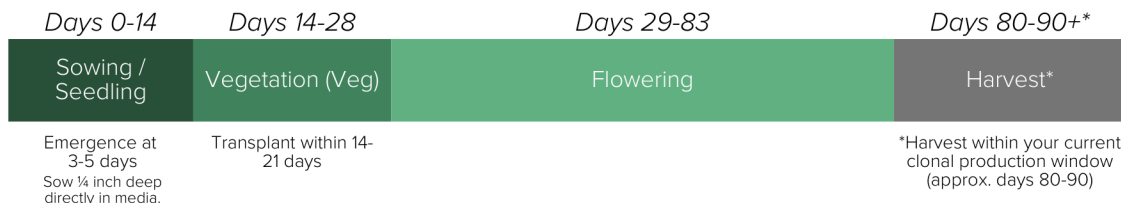
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# Photosensitive Seed Technical Cultivation Brief

Astral & Velocity Series

## Life Period

Timing depends on variety, production system and environment, desired size of plants, and planting density.



## Recommendations for Indoor & Greenhouse Environments

### Lighting

- Management of light intensity throughout all growth phases is critical and has lasting effects on plant maturation and yield.
- We recommend 23-30 DLI (i.e., 350-450 PPF in an 18:6 vegetative cycle) at sowing with an optimal increase to 28-43 DLI (i.e., 650-1,000 PPF during the 12:12 flowering cycle), depending on inputs (e.g., CO2) and plant health.
- The flowering cycle requires a 12:12 dark period.
- Any interruption with light exposure during the dark period may result in a hermaphroditism event.
- Supplemental lighting is helpful during shorter day lengths or in low-light regions.

### Controlled Environment

Table 1. Recommended EC (Electrical Conductivity), VPD (Vapor Pressure Deficit), Photosynthetic Photon Flux Density (PPFD), DLI (Daily Light Integral), and temperatures for indoor & greenhouse photosensitive seed productions using reverse osmosis (RO) water.

	Seedling / Vegetation	Early Flower	Mid Flower	Late Flower	Flush / Harvest
<b>Day</b>	0-28	29-46	47-65	66-83	80-90+*
<b>Growth Phase</b>	4 weeks	7-10 weeks			
<b>Lighting</b>	18 hr light / 6 hr dark	12 hr light / 12 hr dark			
<b>EC</b>	1.4-2.0	2.0-3.0			0.0-0.5
<b>VPD</b>	0.9 - 1.3 kPa	1.2 - 1.6 kPa			
<b>PPFD</b>	350-450* *600 Max	650-1,000** **Higher dependent on inputs (e.g., CO2) and plant health			
<b>DLI</b>	23-30*** ***39 Max	28-43** **Higher dependent on inputs (e.g., CO2) and plant health			
<b>Indoor Soil Temp</b>	🌡️ 70° - 75°F 🌡️				
<b>Ambient Temp</b>	🌡️ 65° - 80°F 🌡️				

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## Additional Recommendations

### Growth Media

- Phylos seeds germinate best in a well-draining, soilless media that allows for good seed-to-soil contact.

### Sow / Transplant

- Sow seeds in 50-72 cell plug trays directly into growth media at an ideal depth of ¼ inch but no deeper than ½ inch.
- Seedlings need high light intensity immediately after germination to prevent plant stretch: 350 - 450 PPFd after seed sow.
- Transplant within 14-21 days after emergence dependent on the plant size and root development.
- Avoid saturated conditions, but keep the growth media evenly moist. We advise against using rock wool due to the difficulties of maintaining proper seed-media contact. We do not recommend using propagation domes as it keeps humidity levels too high for seedling health.

### Soil Salts and pH

- Media pH should range between 5.8-6.2, and EC 0.5-3.0. See Table 1 for recommended EC.
- Frequent media and pour-through tests will help determine appropriate EC and help with fertilizer calculations. It is good practice to calculate the base EC of the water source to add into the equation.
- A reputable fertilizer provider will have personalized feeding recommendations based on your specific grow conditions. Follow a balanced feed plan like FloraPro Grow, FloraPro Bloom, and FloraPro Cal+Micros per their recommendations.

### Lighting Regime

- Unlike clonal production, seeds require higher light intensity immediately at emergence.
- Apply an 18:6 light cycle during the vegetative period for optimal results.

### Vegetation

- Pot size and density used for clonal propagation can be applied to seed production.
- Seedlings and clones can be grown using the same production schedule.
- Follow de-leafing schedules to ensure proper airflow for proper under-canopy maintenance.

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