

## CATHARANTHUS ROSEUS

**Minimum Germination Rate:** 85%

**Seed Product Form:** Raw

**FLOWERING**

**Time Frame when plants are receptive to flower initiation:** Days 18 – 21; 4 – 6 leaves present.

**Flowering Type:** Day Neutral Plant – will flower regardless of daylength.

**Specific Flowering Mechanism:** Temperatures > 72°F (22°C) will hasten flower development.

**PLUG CULTURE**

**Germination** – Optimum conditions for seedling development that begins the day the crop is sown until cotyledon expansion.

Expect radicle emergence in 8 – 9 days.

**Cover:** Seeds may be covered with a medium layer of coarse vermiculite to maintain moisture levels.

**Media:** • pH: 5.3 – 5.8  
• EC: <1.0

**Light:** Dark conditions are required for germination. Once cotyledons have expanded, provide light at 100 – 500 foot candles (1000 – 5000 lux).

**Temperature:** 75° – 78°F (24° – 25°C) until day 14.

**Moisture:** Wet (4+), from day 1 – 6. On day 6, drop to moisture level moist (3), and water to (4) until day 9. Then alternate between moisture level medium (2), and moist (3).

**Humidity:** 100% from day 1 – 10 or until seed coats are shed.

**Dehumidify:** Day 11 to 40%. Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

**Fertilizers:** Maintain EC at <1.0. Fertigation water should not be greater than 0.5.

**Plug Bulking/Flower Initiation** – Optimum conditions during the vegetative period, beginning at cotyledon expansion, needed for the root to reach the edge of the plug cell; AND to make the plant receptive to flower initiation.

**Media:** • pH: 5.3 – 5.8  
• EC: 1.0 – 1.2

**Light:** Supplemental lighting at 350 – 500 foot candles at day 9 will enhance shoot and root growth.

**Temperature:** 72° – 74°F (22° – 23°C) from day 14 – 18. On day 19, begin 70° – 74°F (20° – 23°C).

**Average Daily Temperature (ADT):** 72°F (22°C)

**Moisture:** Alternate between moisture level wet (4) to medium (2) from days 9 – 16. Allow the soil to approach level medium (2), before re-saturating to (4). Thereafter alternate between moisture levels wet (4), and dry (1). Allow soil to approach level (1) before re-saturating between to (4).

**Fertilizers:** Under high light conditions, apply an ammonium-based feed (17-5-17) at 50 – 75 ppm Nitrogen. Under low light conditions, apply a calcium-based feed (14-4-14) at 50 – 75 ppm Nitrogen.

**Growth Regulators:** If needed, spray B-Nine (daminozide) at 1250 – 2500 ppm.

**Fungicides:** Preventative fungicide may be applied between day 7 and 10 for Thielaviopsis and Rhizoctonia.

**GROWING ON**

**Transplant Ready:** 6 – 7 weeks from a '288' plug tray.

**Finish Bulking/Flower Initiation** – Optimum conditions during the vegetative period, beginning at transplant, needed for the root to reach the edge of the container; AND to make the plant receptive to flower initiation.

**Media:** • pH: 5.3 – 5.8  
• EC: 1.2 – 1.5

**Light:** Provide 3500 – 4500 foot candles (12 – 15 total moles or 35,000 – 45,000 lux) to hasten flower induction. Supplemental lighting under low light conditions at 350 – 450 foot candles (35,000 – 45,000 lux) will enhance shoot and root growth.

**Temperature:** 70° – 74°F (21° – 23°C) day and night time temperature.

**Average Daily Temperature (ADT):** 72°F (22°C)

**Moisture:** Alternate between moisture levels wet (4), and dry (1). Allow soil to approach level (1) before re-saturating to (4).

**Humidity:** 40 – 70%

**Dehumidify:** Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

**Fertilizers:** Under high light conditions, apply an ammonium-based feed (17-5-17) at 100 – 150 ppm Nitrogen. Under low light conditions, apply a calcium-based feed (14-4-14) at 100 – 150 ppm Nitrogen.

**Growth Regulators:** It is best to control growth through moisture, feed and temperature management. If needed, apply sprays of B-Nine (daminozide) at 2500 – 5000 ppm or A-Rest (ancymidol) at 3 – 5 ppm.

**Pre-Shipping Techniques to Enhance Post Harvest Quality**

When to treat: 1 – 2 weeks prior to finish or shipping.

**Growth Regulators:** B-Nine (daminozide) at 2500 – 3000 ppm.

**Fertilizer:** Potassium nitrate drench at 150 ppm Nitrogen.

**Common Diseases:** Thielaviopsis, Rhizoctonia, Pythium. Monitor moisture and humidity levels and use preventative fungicide drenches.

**Common Pests:** Fungus Gnats, Shore Flies and Thrips. Use pesticides according to label directions.

**SCHEDULING**

**Total crop time:** 10 – 14 weeks

**'288' Plug crop time:** 5 – 6 weeks

**Transplant to finish crop time:** Packs: 6 – 7 weeks  
4" crop: 7 – 8 weeks  
6" crop: 8 – 9 weeks, depending on number of plugs transplanted into pot.

**PRODUCT USE**

Packs, pots, containers, mass plantings

**GARDEN SPECIFICATIONS**

**Light:** Full sun

**USDA Hardiness Zone:** 11

**AHS Heat Zone:** 12 – 1

**Garden Height:** 14 – 16 inches (35 – 40 cm)

**Garden Width:** 22 – 25 inches (55 – 62 cm)

*Note: These suggestions are only guidelines and may have to be altered to meet individual grower's needs. Check all chemical labels to verify registration for use in your region.*