



Cora[®], SunStorm[®], SunDress[™], SunGlow[™]

CATHARANTHUS ROSEUS

Minimum Germination Rate: 85%

Seed Product Form: Raw

FLOWERING

Flowering Mechanism: Irradiance (primary); plants initiate on approximately day 20 with HID light for 16-18 hours OR total 15 – 24 mols (4,250-6,500 foot candles) for 3 – 4 weeks at 75°F (24°C). Bud/flower development occurs day 36 – 70.

Flowering Type: Day-neutral plant – high irradiance, temperatures higher than 75°F (24°C) will enhance flowering.

PLUG CULTURE

The timing approximations are based on optimal culture recommendations below:

Germination 1 (approximately day 1 – 7): Humidity in the air 100% (humidification) from the time the crop is sown until radicle emergence takes place; root initial has penetrated media; some cotyledon development. Expect radicle emergence in 7 – 8 days.

Cover: Seeds may be covered with a medium layer of coarse vermiculite to maintain dark conditions, optimum moisture levels and so roots will penetrate growing media.

Media: pH: 5.5 – 5.8; this recommended range will reduce the incidence of Thielaviopsis. Monitor pH frequently because Vinca will naturally raise the soil pH by as much as 0.5 – 1 unit. EC: <0.5 – 0.75. Avoid media compaction to allow for root penetration.

Light: Dark conditions are required for germination.

Moisture: Saturated (5), from day 1 – 7 or until radicle emergence (approximately day 8). If you are unable to dehumidify on day 8, decrease the moisture level to wet (4+).

Humidity: 100% from day 1 – 7 or until seed coats are shed.

Temperature: 76° – 78°F (24° – 25°C) until day 7.

Fertilizers: Maintain EC of 0.5 – 0.75.

Germination 2 (approximately Day 8 – 16): Change the humidity in the air (dehumidification) to 40%. The result is better root expansion; cotyledons fully expanded; roots are expanding throughout the growing substrate.

Media: pH: 5.5 – 5.8. EC: 1 – 1.25

Light: 2,000 – 3,000 foot candles (20,000 – 30,000 lux); 6 – 10 mols of light.

Moisture: Dry back media to wet (4) and alternation to moist (3) within 18 hours at radicle emergence (approximately day 8).

Dehumidify: Lower relative humidity to 40% (approximately day 8). Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Temperature: Once cotyledons are observed, reduce temperature to 75° – 78°F (24° – 25.6°C).

Fertilizers: 14-4-14 or 17-5-17 at 60 – 100 ppm nitrogen as needed for an EC in the soil of 1 – 1.25.

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

Plug Bulking/Flower Initiation (approximately day 17 – 24): Length of vegetative period – time necessary for roots to reach the edge of the plug, for shoots to fill out container, and for plants to become receptive to flower initiation. Before initiation starts, the plants should be a proper size, which includes optimum shoot development, large number of auxiliary shoots and good presentation from pot size to plant size.

Media: pH: 5.5 – 5.8. EC: 1.25 – 1.5

Light: 3,500 – 5,000 foot candles (35,000 – 50,000 lux); 12 – 18 mols of light.

Temperature: 75° – 78°F (24° – 25.6°C)

Moisture: Alternate between moisture level wet (4) to medium (2). Allow the soil to approach medium (2), before re-saturating to wet (4). If media is allowed to dry back further than (2), roots damage may occur resulting in a lack of iron uptake. Watering or fertilizing late in the day may increase the susceptibility to airborne disease.

Fertilizers: 14-4-14 or 17-5-17 at 75 – 125 ppm nitrogen, as needed for an EC in the soil of 1.25 – 1.5.

Growth Regulators: SunStorm requires little to no growth regulators since it is genetically compact. If needed, spray B-Nine (daminozide) at 1,500 – 2,500 ppm.

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.

Fungicides: Preventative fungicide may be applied for Thielaviopsis, Rhizoctonia, Pythium, and Phytophthora.

Initiated Bulking (approximately day 25 – 35): Plants are receptive to flowering.

Light: Provide 4,750 – 6,000 foot candles (47,500 – 60,000 lux) or 17 – 22 mols of light.

Temperature: 75° – 78°F (24° – 25.6°C)

Fungicides: Preventative fungicide may be applied for Thielaviopsis, Rhizoctonia, Pythium, and Phytophthora.

GROWING ON

The timing approximations are based on optimal culture recommendations below:

Transplant to Finish: Approximately day 36 – 70.

Media: pH: 5.5 – 5.8. EC: 1.7 – 2.0

Light: Provide 5,000 – 7,500 foot candles (50,000 – 75,000) or 18 – 28 mols.

Temperature: 75° – 78°F (24° – 25.5°C)

Moisture: Alternate between moisture levels wet (4) and medium (2). Allow media to approach level (2) before re-saturating to wet (4).

Humidity: 40%

Fertilizers: 14-4-14 or 17-5-17 at 100 – 150 ppm, as needed for an EC in the soil of 1.7 – 2.

Growth Regulators: SunStorm is a genetically compact so growth regulators are normally not required. B-Nine (daminozide) at 2,500 – 5,000 ppm or A-Rest (ancymidol) at 2 – 4 ppm can be used for the other Vinca.

Fungicides: Preventative fungicide may be applied for Rhizopus, Thielaviopsis, Rhizoctonia, Pythium, and Phytophthora.

TECHNIQUES TO ENHANCE POST HARVEST QUALITY

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

Growth Regulators: B-Nine (daminozide) at 2,500 – 3,000 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.

PRODUCT USE	GARDEN SPECIFICATIONS
Jumbo packs, pots, containers, mass plantings	Light: Full sun USDA Hardiness Zone: 11 AHS Heat Zone: 12 – 1

	Garden Height	Garden Width
Cora	14 – 16" (35 – 40 cm)	22 – 25" (55 – 62 cm)
SunStorm	8 – 10" (20 – 25 cm)	10 – 12" (25 – 30 cm)
SunDress	8 – 10" (20 – 25 cm)	12 – 14" (30 – 35 cm)
SunGlow	10 – 12" (25 – 30 cm)	12 – 14" (30 – 35 cm)

VINCA SCHEDULING IN WEEKS

	Cora	SunStorm	SunDress	SunGlow
Total crop time	11 – 18	10-14	12-15	11-14
'288' plug crop time	5 – 7	5 – 7	5 – 7	5 – 7
'200' plug crop time	6 – 7	6 – 7	6 – 7	6 – 7
Transplant to finish crop time				
Jumbo packs	5 – 8	4 – 6	N/A	4-6
4" crop	5 – 9	5 – 8	5 – 9	5 – 8
6" crop	6 – 10	6 – 8	7 – 10	5 – 8

*Depending on the number of plugs per container.

The shortest crops times may be achieved when following recommended optimal culture. Deviation in environmental conditions will result in longer crop times.