

Cultural Information for: Condor Series Annual
Common Name: Ornamental Cabbage
Botanical Name: Brassica oleracea
Seed Count: 8,500 /ounce 300 / gram
Optimum Germination Temperature: 70°F / 21°C
Optimum Growing Temperature: 50-68°F / 10-20°C
Optimum pH: 5.8 – 6.2
EC – Plug: 0.4 – 0.8 mmhos/cm (1:2) / 0.9 – 2.0 (SME) / 1.1 - 2.6 (Pour Thru)
EC – Finishing: 0.9 – 1.3 mmhos/cm (1:2) / 2.1 – 3.5 (SME) / 2.7 - 4.6 (Pour Thru)

Plug Production – 28 days (288 / 12 x 24 tray)

Stage One (days 1-5) Single sow seed into a 288-plug tray filled with a sterile and well drained media. Optimum temperature is 70°F/21°C. Lightly cover with coarse vermiculite as cabbage seed requires light to germinate.

Stage Two (days 6-10) As soon as the seedlings emerge, move the trays to a cool and bright location with good air movement. Optimum temperature range is 60-75°F/15-24°C. In summer, under high temperature conditions, placing trays outdoors under shade cloth works well. Fertilize with 50 ppm N using a well-balanced calcium nitrate-based fertilizer to strengthen the seedlings.

Stage Three (days 11-19) Maintain optimum temperatures and fertilize with 50-75 ppm N as needed to maintain strong growth.

To maximize stem length do not apply growth regulators.

Stage Four (day 20) The seedlings are ready for transplanting and should have 2-3 true leaves. Do not delay transplanting to maximize stem length and prevent stretched seedlings.

Cut Flower Bed Cultivation

Soil Preparation: Flowering Cabbage does best in a soil-based cut flower bed amended with well-composted organic matter. Good drainage is essential for healthy root and stem development.

Transplanting: Place seedlings upright in the bed. If the hypocotyl is stretched, bury up to the cotyledons to keep the seedlings upright and provide support.

Netting: Ornamental Cabbage Condor grows to 25-30 inches / 63-75 cm. tall. One row of support netting is required for support.

Spacing: Transplant 4 x 4 inches / 10 x 10 cm. apart to promote thin stems and lower leaf drop.

Temperature: For the first 7 weeks target temperatures between 59-75°F/15-24°C to promote vegetative growth. Then, once the plants reach the desired height, target the night temperature below 55°F/13°C to promote leaf coloring. A few weeks after dropping the night temperature leaf coloring begins to show.

Coloring: The plants need to have enough size before color initiation. The leaf color change is related to anthocyanins (a group of water-soluble flavonoids that impart pink to purple colors in leaves) that are always present in the leaves but are hidden by the chlorophyll ~ green color. When the daytime temperature is higher than 77°F and the night temperature is greater than 59°F/15°C, the leaves of Ornamental Cabbage and Kale can synthesize chlorophyll. When the daytime temperature is under 72°F/22°C and the nighttime temperature is between 40-59°F/4-15°C, the synthesis of chlorophyll stops and color (anthocyanins) begins to appear.

Fertilizer: For the first 6 weeks after transplanting, fertilize at 100 ppm N using a well-balanced calcium nitrate-based fertilizer. A week before lowering the night temperature to initiate leaf color, reduce moisture and fertilize at 50 ppm N, as needed, to maintain strong growth. Excess fertilizer promotes a cabbage-like head.

Light: Optimum light level ranges between 3,500 to 5,000-foot candles / 38,000 to 54,000 lux. In high light areas, (California), produce under high tunnels or in greenhouse structures with shading to achieve enough stem length. Outdoor production in full sun works best in winter in mild weather areas or cooler northern climates in summer.

Lower leaf removal: To improve aeration many growers remove the lower leaves starting when the plants reach 8-10 inches/20-25 cm. tall. Repeat 3-4 times or as needed until the top of the plant begins coloring.

Timing: Crop time from sowing ranges from 16-17 weeks

| Plug Stage | Bulking Stage | Coloring | Crop Time |
|------------|---------------|-----------|-------------|
| 3 weeks | 7 weeks | 6-7 weeks | 16-17 weeks |

Insects: Aphids, caterpillars, cut worms

Disease: Botrytis, damping off and downy mildew

“All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North American conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer’s label instructions. Testing a few plants prior to treating the entire crop is best.”