

**Cultural Information for:** Stock Cheerful Annual  
**Common Name:** Stock  
**Botanical Name:** Matthiola incana  
**Seed Count:** 18,000 /ounce 640 / gram  
**Optimum Germination Temperature:** 65-68 °F / 18-20 °C  
**Optimum Growing Temperature:** 50 °F / 15 °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 Culture – 4 weeks (288 / 12 x 24 tray)

**Stage One** (days 1-10) Sow seed into a 288-plug tray and lightly cover with medium vermiculite. Maintain even moisture and a temperature between 65-68°F/18-20°C.

**Stage Two** (days 11-17) After germination is complete, move the seedling trays to a well-lighted area with good ventilation. Fertilize lightly with 100 ppm N and reduce the temperature to 60°F/16°C during the day and 55°F/13°C at night.

**Stage Three** (days 18-25) Fertilize as needed to maintain strong growth. Provide high light up to 7,000-foot candles/75,000 lux and good air circulation.

**Stage Four** (days 26-28) The seedlings have 2 pairs of true leaves and are now ready for transplanting into cut flower beds. The Cheerful series sets buds earlier than common varieties. *Therefore, it is important to avoid root binding and transplant on time.*

Due to special breeding techniques the Cheerful series will produce 90% fully double flowers. Therefore, no special seedling selection is needed.

**Transplant all seedlings!**

### Cut Flower Production – 7-9 weeks

**Bed Preparation:** Select a sunny location with good drainage and a fertile soil.

**Lighting:** Stock Cheerful is not photoperiodic but a combination of long days and warm temperatures will cause premature flowering. Optimum light level is 4,000-7,000-foot candles/43,000-75,000 lux.

**Planting Density:** Space 5 inches/12.5 cm. apart and water regularly, never allow the bed to dry out for the first week. Protect from strong sunshine the first week until the crop is established.

**Moisture:** Supply enough water until visible flower bud, and then gradually reduce irrigations later in the crop cycle to initiate flowers and avoid stretched stems.

**Temperature:** Stock Cheerful is classified as an early flowering variety that requires less cooling to initiate flowering. Stock Cheerful grows best at cool temperatures, so maintain a day temperature under 70°F/21°C and a night temperature between 50-60°F/11-15°C.

**Support:** Plants need supporting nets when plants are about 12 inches/30 cm. tall. Add additional netting as plants develop.

**Fertilizer:** Maintain an EC level around 1.0 mmhos\* in clay soils and 1.25 mmhos\* in sandy soils and fertilize as needed to maintain healthy plants. Stock has a higher need for potassium. Therefore, maintain the N:K ratio at 1 : 1.5. Avoid high rates of ammonium, which promote soft growth and thinner stems. Water sufficiently during production and then keep rather dry from visible bud to harvest. \*1:2 dilution

**Insects:** Aphids, diamondback moths

**Disease:** Botrytis and sclerotium.

**Harvesting:** Cut stems when spikes have 7-15 open flowers.

### **Scheduling:**

| Area       | Sow        | Harvest        | Sow      | Harvest   |
|------------|------------|----------------|----------|-----------|
| Cool Areas | mid-July   | Late-September | February | May       |
| Mild Areas | mid-August | Late-October   | October  | Jan./Feb. |

**Note:** Stock Cheerful matures 1-3 weeks earlier than Mid Cheerful, depending on temperature. Stock Cheerful is less delayed in warmer temperatures than Mid Cheerful.

*“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.”*