

Crop	Stock
Series	Early Arrow, Arrow
Botanical name	Matthiola incana
Plant type	Annual
Seed type	Raw
Seed count	500 seeds / gr
Germination	20 °C - 5 days light favored
Growing	15 °C
Optimum pH	5.8-6.2

## Plug Culture: 4 weeks (288 cell tray)

Due to special breeding techniques the Early Arrow, Arrow series will produce 90% plus fully double flowers. Therefore, no special seedling selection is needed. Transplant all seedlings!

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

**Stage 2** (days 11-17) After germination is complete, move the seedling trays to a well-lighted area with good ventilation. Fertilize lightly with 100 ppm nitrogen and reduce the temperature to 16°C during the day and 10°C at night.

**Stage 3** (days 18-25) Fertilize as needed to maintain strong growth.

**Stage 4** (days 26-28) The seedlings have 2 pairs of true leaves and are now ready for transplanting into cut flower beds. The Early Arrow, Arrow series sets buds earlier than common varieties. Never delay transplanting. Due to special breeding techniques the Early Arrow, Arrow series will produce 90% plus fully double flowers. Therefore, no special seedling selection is needed. Transplant all seedlings!

## Transplanting to finish: 7-9 weeks

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

**Lighting**: Stock Early Arrow, Arrow is not photoperiodic but a combination of long days and warm temperatures will cause premature flowering.

**Planting**: Space 12.5cm 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.

**Temperature**: Stock Early Arrow, Arrow is classified as an early flowering variety that requires less cooling to initiate flowering. Early Arrow, Arrow requires cool temperatures and after transplant keep the day temperature under 21°C and 11-15°C at night.

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

**Fertilizer**: Maintain an EC level around 1.0 mS/cm\* in clay soils and 1.25 mS/cm\* in sandy soils and fertilize as needed to maintain healthy plants. Water sufficiently during production and then keep rather dry from visible bud to harvest. \*1:2 slurry

**Pests**: Spray for aphids and other pests

**Disease**: botrytis and sclerotium.

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

**Note**: Stock Early Arrow matures 1-3 weeks earlier than Arrow, depending on temperature.

All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on Asian conditions such as in Japan and Sakata cannot be held responsible for any crop damage related to the information given herein. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.