

# Vintage Series Bedding Matthiola

*Colorful Series Blooms Early & Branches Faster Than Other Dwarf Bedding Varieties!*

- Profusion of bright flowers comes earlier for more color on the bench faster.
- Non-selectable series produces over 55% double flowers in many unique colors.
- Sturdy, well-branched plants reach 15 to 20 in. (38 to 50 cm) in the garden.
- Excellent outdoor performer.
- Prefers cool growing conditions – good for late Autumn/Winter bedding.
- No vernalization is needed to flower.
- Order **Vintage** seed and plugs – contact your local distributor or call PanAmerican Seed at 800 231-4868.

*Matthiola incana*

Approximate seed count: 15,600 to 20,000 S./oz.  
(550 to 700 S./g)

## Plug Production

### Plug Tray Size

**Vintage** plugs are best produced in 406-cell or larger trays.

### Media

Use a well-drained, disease-free, soilless medium.

### Sowing

Cover seed with a medium to light covering of coarse vermiculite to keep the seed moist. Seed can be germinated either on the bench or in a germination chamber if the recommended germination temperatures can be maintained. Allow 3 to 4 days for germination. Maintain a clean, disease-free environment in the seedling production area.

### Temperature

**Germination:** 68 to 72°F (20 to 22°C). Avoid temperatures higher than 75°F (24°C), as this will produce soft, stretched seedlings which are susceptible to damping off.

**Cotyledon stage:** 60°F (15°C) nights, 65 to 68°F (18 to 20°C) days

**True leaves:** 60°F (15°C) nights, 65°F (18°C) days

**Hold plugs:** 55°F (13°C) nights, 60°F (15°C) days.

The best-quality, well-toned plugs result when Stage 4 temperatures are maintained.

### Light

Supplemental lighting is not required.

### Humidity

Maintain relative humidity (RH) at 95 to 97% until cotyledons emerge.

### Soil Moisture

Keep the plug media moist. Do not subject the seedlings to water stress for toning, as they will not recover well.

### Fertilizer

Beginning at Stage 3, feed seedlings twice each week, applying 50 ppm N from 14-0-14 or 13-2-13, alternating with 20-10-20 fertilizer. After the first week, increase to 100 ppm until the plugs are finished.

**Stage 2:** Maintain EC at 0.5 to 0.75 mmhos and pH at 5.8 to 6.2.

**Stages 3 and 4:** Maintain EC at 1.00 mmhos and pH at 5.8 to 6.2.

### Growth Regulators

Plant growth regulators are not required.

## Growing On to Finish

### Container Size

Transplant plugs into 606 Jumbo cell-packs for best results.

### Growing Location

The best-quality **Vintage** matthiola can be grown outside under cold frame-type conditions to flower/finish, beginning 1 to 2 weeks after transplant.

### Media

Keep the media moist. Avoid conditions that are either too wet or too dry. Wet conditions can cause diseases including Root Rots, Downy Mildew and Bacterial Blight. Dry conditions can cause wilting and lower leaf chlorosis, which then exposes plants to other infections. It is critical to differentiate between lower leaf chlorosis symptoms caused by nutrient deficiency/drought stress, or Downy Mildew.

## Temperature

**Greenhouse production:** Provide night temperatures of 50 to 55°F (10 to 13°C) and day temperatures of 60 to 65°F (15 to 18°C). When finishing **Vintage** matthiola in the greenhouse, avoid temperatures higher than 68°F (20°C).

**Outdoor production:** Best-quality plants result during the time of year when night temperatures are in the low 50s°F (10°C) and day temperatures are in the 60 to 70°F (15 to 21°C) range for the first few weeks.

## Light

Supplemental lighting is not required.

## Fertilizer

One week after transplant, begin a constant feed program with 150 ppm. Maintain EC of 1.5 and pH of 5.8 to 6.2 from transplant to finish. Leach the crop with clear water occasionally to prevent any salt accumulation. NOTE: The constant feed program is better than a weekly feed program, as it will help in preventing any lower leaf chlorosis as the crop comes into flower.

## Growth Regulators

Plant growth regulators are not recommended.

## Crop Scheduling

**Sow to transplant (406 plugs):** 4 to 5 weeks

**Transplant to flower:** 7 to 8 weeks

**Total crop time:** 11 to 12 weeks

## Common Problems

**Insects:** Fungus gnats, shore flies (plug production); thrips, leaf miners, Lepidopteran pests (finishing)

**Diseases:** Downy Mildew, Root Rots, Bacterial Blight. Incorporate preventative fungicide sprays for Downy Mildew throughout the crop cycle. Use appropriate recommended chemicals at the label rates, and maintain a clean, sanitized growing environment. Use a substrate drench with a broad spectrum fungicide at Stage 4 of plug production to help prevent any possible disease occurrence. Avoid wetness on the foliage for prolonged periods and provide good air circulation in the greenhouse.

PanAmerican Seed™

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