

Matthiola Opera Series

(*Matthiola incana*)

Cut Flowers Culture (revised 02/24/19)

Bred for specific seasonal performance, the Aida, Figaro, Opera and Mathilda series offer an outstanding lineup of greenhouse-grown selectable matthiola for year-round production. These matthiola are well-matched for timing and deliver very uniform plant performance. Transplanting for seasons earlier than listed will result in later flowering.

Greenhouse-grown matthiola are distinguished from field-grown types by the softer green leaves.

NOTE: Selectable matthiola will produce approximately 50% double-flowering types, but it is easy to select out the single-flowered types at the young plant stage. Refer to the PanAmerican Seed Product Information Guide at panamseed.com for details.

(Spring Flowering, Group 2)

Stem length: 32 in./81 cm

Planting density: 6 plants/ft.² (64 plants/m²)

Best for: Greenhouse

Plug crop time: 5 to 6 weeks

Transplant to finish: Winter, 11 to 12 weeks; Spring, 8 to 9 weeks; Summer, 6 to 8 weeks; Autumn, 4 to 7 weeks

- Recommended for Autumn to late Spring flowering.
- Production is possible year-round if cool Summer temperatures are maintained in the greenhouse.

General Information

Exposure	Bloom Season	Height	Spread	Spacing
Sun	Early Spring, Spring, Late Spring, Autumn, Winter	32 in. (81 cm)	-	-

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days to Germinate	Initial Media pH/EC	Cover Seed
RAW	288	1	5-6	2-4	5.6-5.9 pH 0.5 mmhos/cm	Yes

Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
Moisture	Level 4	Level 3-4	Level 2-3	Level 1-2
Temperature	59-64°F (15-18°C)	59-64°F (15-18°C)	59-64°F (15-18°C)	59-64°F (15-18°C)
Light	Optional	1,500-2,500 f.c. (16,100-26,900 Lux)	1,500-2,500 f.c. (16,100-26,900 Lux)	2,500-5,000 f.c. (26,900-53,800 Lux)
Fertilizer	Less than 100 ppm N - Less than 0.7 EC	Less than 100 ppm N - Less than 0.7 EC	100 to 175 ppm N - 0.7 to 1.2 EC	100 to 175 ppm N - 0.7 to 1.2 EC

Propagation Key Tips

Double-flowering matthiola may be selected from single-flowering types by exposing seedlings with fully expanded cotyledons to 41°F (5°C) for approximately 4 to 7 days. At this point, seedlings of double-flowering plants will appear a pale green, while singles remain dark green. After removal from cold treatment, double-flowering seedlings will appear yellow and chlorotic within 1 to 2 days, while single-flowering seedlings remain robust and green. This cold treatment may only be done once to selectable matthiola plugs.

Growing on to Finish

Growing on Temperature	Target Media pH/EC	Fertilizer	Daylength
(day) 50-62°F (10-17°C) (night) 50-62°F (10-17°C)	5.8-6.5 pH 1.5-2.0 mmhos/cm	100 to 175 ppm N - 0.7 to 1.2 EC	-

Crop Scheduling

Crop Type	Season	Density	Crop Time
Greenhouse	Autumn	6-7 plants/ft ² (65-75 plants/m ²)	8-10 weeks
Greenhouse	Spring	6-7 plants/ft ² (65-75 plants/m ²)	10-11 weeks
Greenhouse	Summer	6-7 plants/ft ² (65-75 plants/m ²)	6-8 weeks
Greenhouse	Winter	6 plants/ft ² (65 plants/m ²)	12-14 weeks

Common Problems

To prevent against root problems, it's recommended to sterilize (steam or other) the soil after the first crop if several crops will be grown in the same soil over the year. Matthiola is sensitive to Fusarium.

Finishing Key Tips

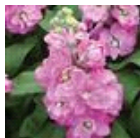
Double-flowering matthiola may be selected from single-flowering types by exposing seedlings with fully expanded cotyledons to 41°F (5°C) for approximately 3 to 5 days. At this point, seedlings of double-flowering plants will appear a pale green, while singles remain dark green. After removal from cold treatment, double-flowering seedlings will appear yellow and chlorotic within 1 to 2 days, while single-flowering seedlings remain robust and green. This cold treatment may only be done once to selectable matthiola plugs.

NOTE: Growers should use the information presented here as guidelines only. PanAmerican Seed recommends that growers conduct a trial of products under their own conditions. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. It is the responsibility of the grower to confirm the treatment is available in their region as well as read and follow all the current label directions relating to the products. Nothing herein shall be deemed a warranty or guaranty by PanAmerican Seed of any products listed herein. PanAmerican Seed's terms and conditions of sale shall apply to all products listed herein.

Variety Pictures



Debora



Fedora



Francesca

PanAmericanSeed™

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