

Bella F₁ Series Abutilon

Compact, Showy Plants Make an Exceptional Year-Round Series!

■ The individual **Bella** varieties are more floriferous and compact with better branching than **Bella F₁** Original Mix.

■ A dual-use plant, **Bella** abutilon is a wonderful selection for garden containers in partial shade locations or as an indoor flowering houseplant in a sunny window. Can be grown year-round – not just Spring.

■ The compact, 14 to 18-in. (35 to 45-cm) plants display large and showy, 3-in. (7-cm), bell-shaped flowers which “look out” for a good show of color. Under cooler temperatures, flower colors intensify.

■ The light green, multi-lobed leaves are similar to the foliage of a maple tree – the separate **Bella** colors have slightly smaller leaves than Original Mix, making the flowers more visible.

■ Contact your local distributor or call PanAmerican Seed at 800 231-4868 for ordering information on **Bella** abutilon.

A. x hybridum (Flowering Maple)

Approximate seed count: 8,500 S./oz. (300 S./g)

Plug Production

Media

Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.3 and a medium initial nutrient charge (EC 0.75 mmhos/cm with a 1:2 extraction).

Sowing

Cover the seed with coarse vermiculite.

Temperature

Germination: 72 to 75°F (22 to 24°C)

Cotyledon stage: 65 to 72°F (18 to 22°C)

True leaves: 65 to 70°F (18 to 21°C)

Hold plugs: 62 to 65°F (16 to 18°C)

Germination is quick, usually only 3 days.

Light

Stage 1: Light is not needed for germination.

After germination: 1,000 to 2,500 f.c. (10,000 to 30,000 Lux).

Seedling maturity: Up to 5,000 f.c. (54,000 Lux) if temperature can be controlled.

Humidity

Maintain 95% relative humidity until cotyledons emerge.

Soil Moisture

Keep soil moisture high until radicle emergence, then reduce moisture levels after the radicle penetrates the medium. Do not allow the seedlings to wilt.

Fertilizer

At radicle emergence, apply 50 to 75 ppm N from 15-0-15. As cotyledons expand, increase to 100 to 150 ppm N.

Growth Regulators

Not needed.

Growing On to Finish

Media

Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.5 and a medium initial nutrient charge.

Temperature

Nights: 60 to 65°F (15 to 18°C)

Days: 65 to 70°F (18 to 21°C)

Temperatures below 60°F (15°C) may cause reduced growth or longer crop time. Temperatures above 85°F (30°C) may cause flower bud abortion.

Light

Maintain light levels at 3,000 to 5,000 f.c (30,000 to 54,000 Lux). Higher light levels may cause foliage to droop. During shorter days and periods of lower light levels, supplemental light from HID lights will decrease time to flower.

Irrigation

Irrigate plants before they are wilted severely to avoid damage.

Fertilizer

Abutilon has a moderate fertilizer requirement. Fertilize every other irrigation at 150 ppm nitrogen. Use a fertilizer with most or all of the nitrogen in the nitrate form. High ammonium-form nitrogen will promote excessively large leaves that will hide the flowers. Maintain medium electrical conductivity around 1.0 mmhos/cm (using 1:2 extraction). Excessive fertilization will suppress flowering. Growing the plants too hungry will cause the foliage to turn a pale green and the leaves to look droopy.

Growth Regulators

The best height control and branching is achieved when the plants are spaced as soon as the foliage touches the sides of the pot. If grown pot-tight, apply a Bonzi spray at 5 ppm 2 to 3 weeks after transplant. For the separate **Bella** colors, only 1 application should be needed. For **Bella** F₁ Original Mix, a second application at the same rate can be given 2 weeks later if necessary.

When applying growth regulators, always follow the current manufacturer label instructions. In-house trials are recommended to determine the best rate for your growing location.

Pinching

Pinching is not needed for the individual **Bella** colors. Best branching on the separate colors occurs when the plants are spaced as soon as the foliage touches the sides of the pot.

To increase branching on **Bella** F₁ Original Mix, apply Florel at 500 ppm 2 weeks after transplant, combined with a pinch 1 week later. This treatment will delay flowering 1 to 2 weeks; however, it will make a nicer plant with 3 to 4 uniform branches. Space when the foliage touches the sides of the pot.

Crop Scheduling

Sow to transplant (400-cell plug tray): 3 to 5 weeks
Transplant to flower: 6 to 8 weeks at 65 to 70°F (18 to 21°C). Crop time can increase to 12 weeks from transplant to flower at low temperatures and low light.
Note: Time to flower is fastest with high light levels. Abutilon is not responsive to photoperiod.

Container Size	Plants Per Pot/Basket	Weeks To Flower From Transplant	
		Spring/Summer	Autumn/Winter
4-4.5-in. (10-11-cm) pot	1	6-8	8-10
5-in. (13-cm) pot	1-2	6-8	8-10
6-6.5-in. (15-16-cm) pot	2-3	7-9	9-11
8-in. (20-cm) basket	3-4	8-10	10-12
10-in. (25-cm) basket	4-6	8-10	10-12

Common Problems

Insects: Aphids, mites, thrips, whitefly.

Diseases:

Rhizoctonia root and stem rot – dark brown or tan lesions often at the medium surface. Drench with Banrot, Terraclor, Terraguard or similar compound.

Pythium root rot – soft, brown, mushy roots. Drench with Subdue, Banrot, Truban or similar compound.

Botrytis blight – tan or brown leaf or flower spots followed by gray, fuzzy spores. Maintain good air circulation and reduced humidity during production. Remove dead or injured leaves or flowers. Apply preventative sprays such as Chipco 26019 or Daconil, or smoke with Exotherm Termil.

Chemical Phytotoxicity: Abutilon is sensitive to some pesticides containing hydrocarbon solvents, such as emulsifiable concentrates.

PanAmerican Seed

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