Verbena bonariensis

Finesse®

Outstanding and Long-Lasting



Outstanding and Long-Lasting

- Vigorous sister of Vanity
- Long flowering season until frost
- Perfect for landscape application
- Well-branched, rain and heat tolerant plants
- Attractive for beneficial insects

Crop Time	Spring: 13 - 15 weeks
Height ⌀	43 " / 110 cm
Width ⌀	20 " / 50 cm
Exposure	Sun - Partial shade
Seed Form	ApeX
Product Use	Bedding, Containers, Landscape
Family, Origin	Verbenaceae, South America
Minimum Germ. Rate	85 %

TECHNICAL GUIDE

Verbena bonariensis Finesse®

Flowering

Flowering Type: The plants are mainly sold in their green state at retail. Facultative long day plant, flowering more quickly under a long day length.

Flowering Mechanism: Typical cultivation as a flowering annual that flowers from June to late october. Higher light intensity and warmer temperatures will shorten the total crop time.

Plug Culture

Optimal storage: Up to 6 months at 5 °C / 41 °F

Germination: Maintain optimal conditions for seedling development, should begin on the day of sowing until root emergence. Expect the emergence of the first seedlings after 10 days.

Cover: Cover the seeds lightly with vermiculite. Sowing method: 3-5 seeds per plug Media: Use a well-drained media, pH 5.8-6.2; EC 0.7-1.2

Temperature: Maintain 22-24 °C (72-75 °F) for the first 10 days, then lower the temperature to 16-18 °C (61-64°F) during the second part of the plug culture.

Moisture: Begin with the moisture level wet (4) for the first 10 days or until root emergence has occurred. Afterwards, begin to dry back the media and grow the plants relatively dry. Alternate between a moisture level medium (2) and dry (1).

Humidity: 80-85 % until day 10; then reduce to 40-60 % and avoid high humidity. Provide proper ventilation and horizontal airflow to improve oxygen levels in the media.

Light: Light is not required for germination. Providing an additional light source after germination will improve the growth and uniformity of the seedlings. Keep light levels below 250 ft. candles (25,000 lx) before increasing it up to 400-500 ft. candles (40,000-50,000 lx) in the final stage of plug production.

Fertilizer: Maintain an EC of 0.7-1.2 throughout the entire plug production. At radicle emergence, begin feeding 100 to 150 ppm N on a regular basis by using a balanced fertilizer.

Plug Bulking and Flower Initiation: Optimum conditions during the vegetative stage from cotyledon expansion to flower initiation. This stage is when the seedlings root to the edge of the plug and reach the 4-6 true leaf stage where flower initiation occurs. Vernalization is not required for flower initiation.

Growth Regulators: Mixed applications of daminozide (2,500 ppm per spray) and chlormequat (300 ppm per spray) can be applied to keep the plugs uniform and compact. Start feeding after stage 2, as soon as the cotyledons have spread.

Fungicides: Preventative applications of fungicides can be used to prevent damping-off.

Growing On

Media: pH 5.8-6.2; EC 1.2-1.5

Light: As facultative long day plant, the flower initiation will be supported by long days above 14 hours and high light conditions. Additional light is not needed.

Temperature: At the beginning, a temperature of 16-18 °C (61-64 °F) during the day is optimum, during the night you should lower the temperature to 14-16 °C (57-61 °F). Then, lower the temperature slowly to 10 °C (50 °F) to keep the plants

compact. Verbena does not tolerate frost.

Moisture: Grow the plants relatively dry by alternating between moisture levels medium (2) and dry (1). Ensure that the plants never dry out completely.

Humidity: Avoid high humidity, especially to prevent powdery mildew. Providing good ventilation and horizontal airflow will help lower the humidity and dry back the media, providing oxygen to the roots.

Fertilizer: Relatively high fertilization levels are required to maintain a pH of 5.8-6.2. Regular applications of 200 ppm N should be used as needed, while avoiding high ammonium levels. Alternate between a calcium nitrate fertilizer and a potassium balanced fertilizer. Ensure to prevent a deficiency of magnesium and iron. Growth Regulators: The use of growth regulators and pinching the shoots are not necessary. "Flair" grows genetically compact, while its vigorous sister "Finesse®" is intended to reach the specified height.

Fungicides: Under long periods of low light conditions and high humidity, fungicide applications may be necessary.

Common Diseases: Keep track on powdery mildew under high humidity conditions.

Pests: Primarily aphids and thrips.

Plug & Finished Crop Time
Plug Crop Time

288 tray: 4-5 weeks

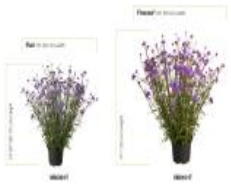
Finished Crop Time (from 288 tray)

12-15 cm (5-6") pots (1*): 9-10 weeks

17-19 cm (7-8") pots (2-3*): 10-11 weeks

*plants per pot

Timing & Positioning Charts



Expert Tip
Pay attention to the irrigation, stagnant moisture with root rot as a result is the worst case for Verbena. So the well-drained soil is an important factor during cultivation.

Moisture Codes

Saturated (5) Water is easily observed when finger is pressed on cell. Water moves freely from the top of the plug to the bottom.

Wet (4)	Media looks black and is not glistening. The media feels wet to the touch but there is very little water movement.
Moist (3)	Water is not easily visible. When finger is pressed on the cell there is very little movement from top to bottom.
Medium (2)	Media is not black, but now looks medium brown. There is no water movement when pressed with finger.
Dry (1)	Media has changed color to a very light brown and is dry to the touch.

All information in our technical guide is based on our own trials and would therefore be as guideline only. Detailed cultivation aspects vary depending on climate, location, time of year and environmental conditions. Benary expressly disclaims any responsibility for the content of such data/information and makes no representation or warranty for the cultivation of any products listed. It is recommended that growers conduct a trial of products under their own conditions.

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