

Bidens Sunbeam

(*Bidens aurea*)

A Ball FloraPlant Product

Propagation

- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.8 to 6.2.
- Stick cuttings within 12 to 24 hours of arrival. Cuttings can be stored overnight, if necessary, at 45 to 50°F (7 to 10°C).
- Soil temperature should be maintained at 68 to 73°F (20 to 23°C) until roots are visible.
- Once roots are visible, the media should be kept moderately wet, but never saturated.
- Begin fertilization with 75 to 100 ppm N when roots become visible. Increase to 150 to 200 ppm N as roots develop.
- As the rooted cuttings develop, high light and moderate air temperatures should eliminate the need for chemical plant growth regulators (PGRs).
- Sunbeam Bidens should be pinched during propagation. To improve branching and habit, plants should be pinched 7 to 10 days before transplanting.
- Bidens rooted cuttings should be ready for transplanting 21 to 24 days after sticking.

Growing On to Finish

Media

- Use a well-drained, disease-free, soilless medium.
- Maintain a media pH of 5.8 to 6.2.

Temperature

Nights: 53 to 61°F (12 to 16°C)

- Days: 59 to 76°F (15 to 24°C)
- Excessively warm temperatures will cause stretching.
- Recommended night temperatures will create maximum branching and the best possible habit.

Light

- Keep light intensities at 5,000 to 9,000 f.c. (50,000 to 90,000 Lux).
- Low light levels promote stem stretch.
- Reduce light intensity when temperatures are high to prevent flower and leaf burning.

Watering

- Sunbeam Bidens is susceptible to Botrytis – avoid high humidity and wet foliage.

- When plants are young, allow the media to dry slightly between waterings.

Fertilizer

- Use constant feed with a balanced fertilizer at 175 to 225 ppm N with additional iron as needed.
- A full complement of minor elements should be provided at each fertilizer application.
- Controlled-release fertilizer can be used to supplement a liquid feed program.

Pinching

- Pinch plants back 7 to 10 days after transplanting to improve basal branching.
- For a larger basket or container, a second pinch can be applied, but will delay flowering by approximately 2 weeks.
- Plants will generally bloom 4 to 6 weeks after a pinch.

Controlling Growth

- The best way to control the growth of Bidens is to grow the crop cool, provide bright light and apply moderate, regular water stress to promote flowering and reduce unwanted vegetative growth.
- If needed, control growth using 1 or more applications of B-Nine (2,500 ppm). Sunbeam Bidens also responds to Sumagic Spray (3-5 ppm) or drench (0.25 ppm).
- Use of PGRs can delay flowering 1 to 2 weeks. Avoid spraying once flower buds appear.
- Varieties will respond differently to growth regulators.
- In general, more frequent applications of any growth regulator at a lower concentration will produce the best results.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

Common Problems

Insects: Aphids, thrips, leafminers, fungus gnats

Diseases: Botrytis, Rhizoctonia, Pythium

All Sunbeam Bidens cuttings are derived from culture and virus-indexed stock from the **Ball Certified Plants**® program.

Problem: Plant collapse

Causes: Wet media for an extended period (Pythium);
Planting too deeply (Rhizoctonia)

used in accordance with all regulations.

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Problem: Delayed flowering

Causes: Late application of growth regulators;
Excessive heat

Problem: Excessive vegetative growth

Causes: Higher than recommended air temperatures;
Over fertilization under low light conditions; Low light levels and overwatering; wet media

Problem: Poor branching

Causes: Low fertilization; lack of nitrogen

Problem: Stretched plants

Causes: Low light levels; Excess water; Higher than recommended air temperatures

Problem: Chlorosis

Causes: Iron deficiency; High pH; Nitrogen deficiency

Sunbeam Bidens Crop Schedule & Uses (Crop Schedule In Weeks)

Unrooted cuttings

4-in. (10-cm) Pots 1 PP* - 7-10

6-in. (15-cm) Pots 1 to 2 PP* - 8-10

10 to 12-in. (25 to 30-cm) Pots 4 to 5 PP* - 9-13

Rooted cuttings

4-in. (10-cm) Pots 1 PP* - 5-7

6-in. (15-cm) Pots 1 to 2 PP* - 6-8

10 to 12-in. (25 to 30-cm) Pots 4 to 5 PP* - 6-9

*PP: Plants per pot or basket

NOTE: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being

