

Bidens Brazen™

Culture Guide

Bidens ferulifolia

Product form: Vegetative

Containers: Pints, Quarts, Gallons, Hanging Baskets

Habit: Mounded

Garden Specifications

Garden Height: 8–12" (20–30 cm) tall

Garden Width: 16–24" (40–60 cm) wide

Exposure: Full sun

USDA zone: 10–11

AHS zone: 11–2

Product use: Containers, Hanging Baskets, Patio Pots, Combos

Propagation of Unrooted Cuttings

Root emergence: 6–8 days

Rooting hormone: Not Recommended

Bottom heat temp.: 70–74 °F (21–23 °C) for the first three weeks. After roots are well developed, temperatures can be lowered to hold and tone the cuttings.

Misting: Mist schedules vary depending on light and temperature conditions. Apply just enough moisture to rehydrate the cuttings and keep them from wilting. Cuttings should be hydrated and in a non-wilted stage within 24 hours after sticking. Cuttings that continue to wilt heavily after 24 hours will callus unevenly and will be delayed in rooting. CapSil® (spray adjuvant) can be sprayed on the cuttings at a rate of 2–4 oz/100 gal within 1–2 days after sticking to help in rehydration of the cuttings. Misting should be significantly reduced after 2–3 days and after cuttings become fully hydrated.

Rec. tray size: 105-cell (30 mm) or larger

Propagation timing: 3.5–4 weeks for a 105-cell plug; add more rooting time for significantly larger plug sizes.

Temperature

Day: 72–74 °F (22–23 °C)

Night: 72–74 °F (22–23 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 1,000–1,200 foot candles (200–250 micro mols) for the first two weeks after sticking or until root development occurs. Light levels can be increased up to 3,000 foot candles (600 micro mols) as rooting increases and the cutting matures.

Day length response: Day neutral

Day light integral: 4–6 mols/day for the first two weeks after sticking or until root development occurs. DLI can be increased to greater than 12 mols/day after root formation.

Media pH: 5.8–6.2

Media EC: SME EC: 0.9–1.3 mS/cm, PourThru EC: 1.4–2.0 mS/cm

Fertilizer: Begin fertilization at 100 ppm nitrogen when roots become visible. Rates can be increased up to 200 ppm nitrogen after roots become well developed. Use primarily Cal-Mag® Plus (calcium nitrate + magnesium nitrate) fertilizers in propagation to prevent unwanted stretch. Supplemental feeding with additional iron (i.e., iron chelate) will help prevent iron deficiency and leaf tip chlorosis, which sometimes can occur during propagation.

Pinching: Recommended

Plant growth regulators (PGRs): Brazen varieties have moderate to high vigor and will generally need a PGR treatment in propagation. To control growth after rooting, a spray of B-Nine® WSG (1,500–2,500 ppm) is effective. It is also becoming popular for growers to combine Florel® (350 ppm) with the B-Nine® WSG (1,500 ppm) to increase growth control and improve branching. These Florel® + B-Nine® WSG combo sprays should be applied to actively growing plants. Do not spray B-Nine® WSG or Florel® + B-Nine® WSG tank mixes on stressed or weak cuttings. For all sprays listed above, the mist should be off for a minimum of one hour for the PGR to absorb into the leaf tissue. Brazen Imperial Luck has relatively low vigor and generally needs little PGR treatment in propagation.



Brazen™ Rising Sun

Finishing

Temperature

Day: 70–72 °F (21–22 °C)

Night: 62–64 °F (17–18 °C)

Average daily temperature: 66–68 °F (19–20 °C)

Lighting

Day extension lighting: Not necessary

Light intensity: 4,000–6,000 foot candles (800–1,200 micro mols)

Day length response: Day neutral

Day light integral: 16–18 mols/day

Transplanting: Transplant directly into the finished container. Place the rooting media slightly below the level of media in the container. Make sure that the root ball is covered and that the cutting is situated in the center of the pot.

Media pH: 5.8–6.2

Media EC: SME EC: 1.5–2.1 mS/cm, PourThru EC: 2.3–3.2 mS/cm

Fertilizer: 125–175 ppm N

Pinching: Yes, 1 pinch is recommended 7–10 days after transplant if not previously done in propagation. A second pinch can be given to plants grown in large baskets and containers, but generally is not needed if adequate PGRs are being used to control growth during finishing after the initial pinch. Refer to the PGR section of this culture guide for more information.

Plant growth regulators (PGRs): Brazen varieties have moderate to high vigor and generally will need chemical growth regulation. Sprays of B-Nine® WSG (2,500 ppm) can be used to control growth. A tank-mix spray of Florel® (350 ppm) + B-Nine® WSG (1,500 ppm) can also be used to control growth and improve branching early in production, especially if not given this treatment in propagation. A Bonzi® drench (0.5–1 ppm) can be given 3–4 weeks before finishing and results in toned, high-quality plants. Brazen Imperial Luck has relatively low vigor and generally needs little PGR treatment. If a PGR treatment is needed, usually a 0.5 ppm Bonzi® drench is sufficient.

Tech tip: Brazen Bidens cuttings root quickly and should be transplanted on time. Plants have adequate vigor and flower relatively quickly allowing the plants to fill in containers quickly. Brazen Bidens forms a well-branched, mounding to semi-trailing plant with just one pinch. Brazen Imperial Luck is more compact and will take more time to fill out pots than the other varieties (Samurai, Eternal Flame, and Rising Sun). These are great plants for mixed containers, and the flowers mingle well with other species.



Try Chrysal Alesco®, a postharvest foliar spray, to protect ethylene sensitive crops during shipping and retail.

Moisture level: Media should be allowed to dry between irrigations. Alternate between moisture level 2 and 4.

2 - MEDIUM: Soil is light brown in color, no water can be extracted from soil, and soil will crumble apart.

4 - WET: Soil is dark brown but not shiny, no free water is seen at the surface of the soil, when pressed or squeezed water drips easily, and trays are heavy with a visible bend in the middle.

Common pests: Whiteflies, Spider Mites

Common diseases: Botrytis

Scheduling

SIZE	CROP TIME	PLANTS PER POT
1.0 pint (4 inch)	6 weeks	1 ppp
1.0 quart (4.5 to 5 inch)	6–7 weeks	1 ppp
1.25 to 2.5 quart (5.5 to 6.5 inch, trade gallon)	8–10 weeks	1 ppp
3.0 quart to 2.0 gallon (7.5 to 10 inch)	9–10 weeks	2–4 ppp
1.5 gallon hanging basket (10 inch basket)	10–11 weeks	3–4 ppp
2.0 gallon hanging basket (12 inch basket)	10–11 weeks	4–5 ppp
3.0 gallon hanging basket (14 inch basket)	10–11 weeks	6 ppp

Estimated finish crop time is from transplant of a 105-cell tray and finished at the recommended average daily temperature of 68 °F.

Example crop schedule for a 1.0 quart

WEEKS FROM TRANSPLANT	DESCRIPTION
1 week	Provide average daily temperatures of 68 °F (20 °C) and DLI levels above 15 mols/day. Plants should have been previously pinched during propagation. Apply a preventative broad-spectrum fungicide drench
3 weeks	Apply a tank-mix spray of Florel® (350 ppm) + B-Nine® WSG (1,500 ppm) to control growth and improve branching
5 weeks	Apply a Bonzi® drench at 0.5 to 1 ppm depending on variety. Scout for whiteflies and treat if needed
7 weeks	Sale

Brazen™ Imperial Luck

Brazen™ Eternal Flame

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