

# Torch<sup>TM</sup> Gaillardia

## Propagation

- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.5 to 5.8.
- 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 74°F (20 to 23°C) until roots are visible.
- To encourage branching and reduce stem stretch, **Torch** Gaillardia should be propagated under as high a light as possible while avoiding unnecessary stress on the cuttings.
- Begin fertilization with 75 to 100 ppm N when roots become visible. Increase to 150 to 200 ppm N as roots develop. Avoid phosphorous and ammoniacal nitrogen during the rooting process to reduce stretch and unwanted vegetative growth.
- As the rooted cuttings develop, high light, appropriate water stress and moderate air temperatures should eliminate the need for chemical plant growth regulators (PGR).
- **Torch** Gaillardia should be pinched approximately 7 days before transplanting to eliminate any flower buds and encourage branching.
- **Torch** Gaillardia rooted cuttings should be ready for transplanting 24 to 28 days after sticking and should be transplanted as soon as possible.

## Growing On to Finish

### Media

Use a light, well-drained soilless medium with a pH of 5.5 to 5.8.

### Temperature

- Nights: 60 to 65°F (15 to 18°C)
- Days: 65 to 75°F (18 to 24°C)
- Recommended night temperatures will create maximum branching and the best possible habit.

### Light

- Keep light levels as high as possible while maintaining recommended temperatures. The ideal range is 5,000 to 8,000 f.c. (50,000 to 80,000 Lux).
- Light levels below 5,000 f.c. (50,000 Lux) will cause stem stretch.

## Watering

- During the first 10 to 14 days, water media sparingly and never saturate. Allow media to dry somewhat between waterings.
- Avoid extended periods of saturated media, as this will cause root system problems.

## Fertilizer

- Maintain constant fertilization at 200 to 250 ppm N.
- Excessive phosphorous and ammoniacal nitrogen will cause unwanted vegetative growth. Both should be provided in very limited quantities.
- Slow-release fertilizer can be incorporated at a moderate rate to supplement a liquid program.

## Pinching

A single pinch, applied before transplanting, is recommended when **Torch** Gaillardia is grown in 4.5 to 5-in. (11 to 13-cm) containers. Stems should be pinched to 3 or 4 nodes. Growers may choose to pinch plants in larger, 5 to 8-in. (13 to 25-cm) containers a second time to enhance branching and the number of flowers spikes. The second pinch should be 10 to 14 days after transplanting.

## Controlling Growth

- Height can be controlled, in part, by maintaining moderate fertility, allowing the media to dry slightly between watering, providing maximum light and spacing plants before crowding and stretch occur.
- A tank mix of Cycocel (750 to 1,000 ppm) and B-Nine (1,500 to 2,500 ppm) applied 10 to 14 days after transplanting can be used to improve the habit of **Torch** Gaillardia.
- B-Nine (3,000 to 4,000 ppm) applied 1 to 3 times is effective. The first application should be 7 to 10 days after the first pinch. Likewise, Florel (200 to 300 ppm) applied as a spray will control unwanted growth and encourage branching.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

## Common Problems

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

Problems	Causes
<b>Plant collapse</b>	Wet media for an extended period of time ( <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Botrytis</i> )
<b>Excessive vegetative growth</b>	High ammonia in media Over-fertilization under low light conditions Over-watering under low light conditions Excessive phosphorous
<b>Poor branching</b>	Low fertilization, especially nitrogen Low light conditions
<b>Stretched plants</b>	Low light conditions Crowding before spacing Late transplanting

## Torch Gaillardia Crop Schedule & Uses

(Crop Schedule In Weeks)

	<b>4.5–5-In. (11–13-Cm) Pots</b> <b>1 PP*</b>	<b>6-In. (15-Cm) Pots</b> <b>2–3 PP*</b>	<b>10–12-In. (25–30-Cm) Pots</b> <b>3–5 PP*</b>
<b>Unrooted cuttings</b>	9–10	10–11	11–13
<b>Rooted cuttings</b>	6–7	7–8	8–10

\*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.

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