

Touchdown Family

Chrysanthemum x morifolium



The uniquely two-toned Touchdown family features large flowers with unique bicolor petals across a wide color range. Ideally times for mid-season production, the Touchdown family's upright habit makes them a great solution for retail end cap displays in premium containers.



65423
Orange



65424
Purple



65421
White



65428
Bicolor Pink



65429
Yellow



67475
Bronze

STATUS	CULTIVAR	CULTIVAR CODE	RESPONSE TIME (North/South/Shaded)	VIGOR	FLOWER SIZE	HABIT	RECOMMENDED CONTAINER SIZE
	Bicolor Pink	65428	36/37/6.5	M	M/L	UM	1Qt, Qt, 3 Qt, Patio Pot
	Orange	65423	36/37/6.5	M	M/L	UM	1Qt, Qt, 3 Qt, Patio Pot
	Purple	65424	36/37/6.5	M	M/L	UM	1Qt, Qt, 3 Qt, Patio Pot
	White	65421	36/37/7	M	M/L	UM	1Qt, Qt, 3 Qt, Patio Pot
	Yellow	65429	36/37/6.5	M	M/L	UM	1Qt, Qt, 3 Qt, Patio Pot
NEW	Bronze	67475	36/37/6.5	M	M/L	UM	1Qt, Qt, 3 Qt, Patio Pot

Touchdown Family

Chrysanthemum x morifolium



STICKING

Rooting Hormone?	No
Misting instructions	Keep leaves coated and turgid (without saturating the media) until callus formation

CONTAINER SIZE	PLANTS PER POT	VEGETATIVE TIME (WEEKS)
4-6 in. (10-15 cm)	1	8
Gallon-8 in. (16-19 cm)	1	10
10 in. (22 cm) and up	3-5	10

FERTILITY

Fertilizer Rate	50 ppm N with 17-5-17 if media leaching occurs
Long-Day EC Range	Moderate (0.8-1.5 mS via SME)
pH Range	5.8-6.2

TEMPERATURE

Average Soil Temp	73-75°F (23-24°C)
Average Air Temp	70°F (21°C)

IRRIGATION

Irrigation Frequency (after day 14)	Level 3: Keep media moderately moist at all times
-------------------------------------	--

LIGHT

Vegetative Photoperiodic Requirements	Long Day
Supplemental	To prevent premature bud set, provide long days using a 4-hour night interruption from 10pm-2am at a minimum of 10 fc (108 lux)
Benefits From Shade?	Keep light levels below 4200 fc (45000 lux) until callus forms. Full sun conditions should persist thereafter

PINCHING

Not recommended

POTENTIAL DISEASES

Pythium, Fusarium, Botrytis, Rhizoctonia, Septoria, Alternaria, BLS - bacterial leafspot, white rust,

POTENTIAL PESTS

thrips, aphids, mealy bugs, mites, leafminers,

GROWTH REGULATION

- If nighttime temperatures fall below 68°F (20°C), apply Ethephon (3.9%) at 500 ppm once roots are about 1 inch (2.5 cm) in length (around day 10)

TIPS

- Place cuttings in cooler upon arrival at 46-50°F (8-10°C).

Touchdown Family

Chrysanthemum x morifolium



FERTILITY

Fertilizer Rate	Moderate: 100-200 ppm N with 20-10-20
Short Day EC Range	Moderate-High (1.7-3.0 mS via SME)
pH Range	5.3 - 6.6

TEMPERATURE

Day Temperature	76-84°F (24-29°C)
Night Temperature	69-74°F (21-23°C)

IRRIGATION

Irrigation Frequency	Level 3: Keep media moderately moist at all times
----------------------	--

LIGHT

Flowering Photoperiodic Requirements	Short Day
Photoperiodic Instructions	Between 12.75-13.5 hours of darkness until flower color is visible.
Supplemental	Short days are required for bud set, only light to maintain vegetative growth
Benefits From Shade?	No

PINCH INSTRUCTIONS

Not recommended

POTENTIAL DISEASES

pythium, fusarium, botrytis, rhizoctonia, septoria, alternaria, bacterial leaf spot, white rust

POTENTIAL PESTS

thrips, aphids, mealy bugs, mites, leafminers

GROWTH REGULATION

- Ethephon (3.9%) at 500ppm every 7-10 days when temps are above 65°F (18°C); at 500-750ppm every 5-7 days when temps are between 55-65°F (12-18°C); and at 750-1000 ppm every 5-10 days when temps are below 54°F (11°C). All applications should stop a half week earlier than the response timing (e.g. last application 5.5 weeks before ship for a 5 week response time variety).
- GA4A7, 6-BA (1.8%, 1.8%) tank mix at 1:100 ratio with Ethephon (3.9%) to avoid brittle plants and an overly compact plant habit
- Daminozide (85%) at 500-1500 ppm for height control
- Paclobutrazol (0.4%) drench at 2-4ppm or spray at 30-125 ppm to hold at finish

TIPS

- Cool night temperatures during finishing can increase color intensity.
- Additional micronutrients from a balanced blend should be added to the fertilizer solution to deliver about 1 ppm Iron, 0.5 ppm Zinc, 0.25 ppm Copper, 0.25 ppm Boron, and 0.1 ppm Molybdenum.
- Heat delay can occur when daytime temperatures surpass 90°F (32°C) and/or when night temperatures surpass 77° (25°C). This is a general guideline and will differ based on cultivar and growing environment. In shaded production, ensure black cloth is pulled after sun is low to avoid heat buildup; evening or prior to sunrise is preferred.
- Irrigate with fertilizer immediately following a heavy rain to recharge the growing media. There is no reason to allow the media to dry before recharge.
- Plants not subjected to growth regulator will elongate about 1 inch (2.5 cm) per week following the start of short days. Plant height (including the height of the pot) should be about 60% of the final height at the start of short days and reproductive development.