

# Ditto Family

*Chrysanthemum x morifolium*

The first Dümme Orange bred family of garden mums. Ditto's perfectly matched colors are well suited for monoculture or combinations. This family will work well for both shaded and natural season production. These mums have a small to medium vigor and fall into the early flowering group with the expected natural response flowering window around week 36 (Early September).



65110  
Dark Orange



65863  
White



65111  
Dark Pink



65862  
Lemon



65861  
Pink



48316  
Confetti Garden Leo



44287  
Confetti Garden Virgo

STATUS	CULTIVAR	CULTIVAR CODE	RESPONSE TIME (North/South/Shaded)	VIGOR	FLOWER SIZE	HABIT	RECOMMENDED CONTAINER SIZE
<b>NEW</b>	Dark Orange	65110	36/37/6	S/M	S/M	M	Pint, Qt, 3 Qt, Hanging basket
<b>NEW</b>	Dark Pink	65111	36/37/6	S/M	S/M	M	Pint, Qt, 3 Qt, Hanging basket
<b>TOP PICK</b>	Lemon	65862	36/37/6	S/M	S/M	M	Pint, Qt, 3 Qt, Hanging basket
<b>NEW</b>	Pink	65861	36/37/6	S/M	S/M	M	Pint, Qt, 3 Qt, Hanging basket
<b>TOP PICK</b>	White	65863	36/37/6	S/M	S/M	M	Pint, Qt, 3 Qt, Hanging basket
<b>NEW</b>	Confetti Garden Leo	48316	36/37/6	S/M	S/M	M	
<b>TOP PICK</b>	Confetti Garden Virgo	44287	36/37/6	S/M	S/M	M	

GARDEN MUMS  
PROPAGATION  
**Ditto Family**

*Chrysanthemum x morifolium*



**STICKING**

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

**CONTAINER SIZE**

**PLANTS PER POT**

**VEGETATIVE TIME (WEEKS)**

<b>4-6 in. (10-15 cm)</b>	<b>1</b>	<b>8</b>
<b>Gallon-8 in. (16-19 cm)</b>	<b>1</b>	<b>10</b>
<b>10 in. (22 cm) and up</b>	<b>3-5</b>	<b>10</b>

**FERTILITY**

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

**TEMPERATURE**

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

**IRRIGATION**

Irrigation Frequency (after day 14)	<b>Level 3: Keep media moderately moist at all times</b>
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**LIGHT**

Vegetative Photoperiodic Requirements	<b>Long Day</b>
Supplemental	<b>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)</b>
Benefits From Shade?	<b>Keep light levels below 4200 fc (45000 lux) until callus forms. Full sun conditions should persist thereafter</b>

**PINCHING**

Not recommended

**POTENTIAL DISEASES**

*Pythium, Fusarium, Botrytis, Rhizoctonia, Septoria, Alternaria, BLS - bacterial leaf spot, 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).

# Ditto Family

*Chrysanthemum x morifolium*



## FERTILITY

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

## TEMPERATURE

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

## IRRIGATION

Irrigation Frequency	<b>Level 3: Keep media moderately moist at all times</b>
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## LIGHT

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

## 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.