

POT MUMS

OVERVIEW

COSMO

Chrysanthemum x morifolium



Cosmo is the most elegant and grandiose pot mum series offered by Dümmen Orange. Comprised of Yellow, Purple, and White, all three Cosmo cultivars are stable mutants from the same parent, making them perfectly uniform. Fresh Lime and Bordeaux are not from the same parent, but are equally great. Flawlessly matched vigor and response time makes them a low-risk, high-reward choice for any combination program. Appealing to consumers that have grown bored with Easter lilies and African



Cosmo Purple



Cosmo Yellow Improved



Cosmo Bronze



Cosmo White

STATUS	CULTIVAR	CULTIVAR CODE	RESPONSE TIME (WEEKS)	VIGOR	FLOWER TYPE
NEW	Cosmo Bronze	65253.	8	●●○○○	Incurved
	Cosmo Purple	65653	8	●●○○○	Incurved
	Cosmo White	65787	8	●●○○○	Incurved
	Cosmo Yellow Imp.	65267	8	●●○○○	Incurved

●○○○○ Compact ●●○○○ Medium-compact ●●●○○ Medium ●●●●○ Medium-vigorous ●●●●● Vigorous
*indicates limited availability

POT MUMS
PROPAGATION
COSMO

Chrysanthemum x morifolium



STICKING

Rooting Hormone?	Optional with 1,200-1,500 ppm Indole-3-butyric acid (IBA)
Direct Stick Instructions	Stick cuttings in a ring towards the outside of the pot at a slight outward-facing angle. Do not cluster cuttings towards the center of the pot.
Misting instructions	Keep leaves coated and turgid (without saturating the media) until callus forms
Rooting Humidity	100% from day 0-8 Reduce from 95% to 70% from day 9-14

CONTAINER SIZE	PLANTS PER POT	VEGETATIVE TIME (WEEKS)
4"-4.5"(10-11cm)	1-3	4-5
6 in. (15 cm)	4-5	4-5

FERTILITY

Fertilizer Rate	Moderate: 200 ppm N with 17-5-17 or 20-10-20 to charge media once callus forms. 200-300 ppm N with 17-5-17 thereafter
Long-Day EC Range	0.6-1.0 mS via SME
pH Range	5.8-6.2

TEMPERATURE

Average Soil Temp	68-70°F (20-21°C)
Average Air Temp	68-72°F (20-22°C)

IRRIGATION

Irrigation Frequency	After Day 14: Level 4: Keep media moderately moist at all times
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LIGHT

Vegetative Photoperiodic Requirements	Long Day
Supplemental	To maintain vegetative growth: Night interruption from 10pm-2am using minimum 10fc (108 lux).
Benefits From Shade?	Keep light levels below 4200 fc (45000 lux) until callus forms. Full sun conditions should persist thereafter.

PINCHING

Do NOT pinch if growing for one large flower per stem. Pinching the Cosmo series will result in more flowers but at a drastically reduced size.

POTENTIAL DISEASES

Botrytis, Pythium, Rhizoctonia, powdery mildew

POTENTIAL PESTS

Aphids, spider mites, thrips, mealy bugs

GROWTH REGULATION

- B-Nine (85% Daminozide) at 1250-2500 ppm: Cosmos features a compact growth habit; depending on the desired height, none or one application may be required in long days.
- Cosmo can be grown in a negative DIF environment with night temps at 68°F (20°C) and day temps at 64°F (18°C).

TIPS

- Place cuttings in cooler upon arrival at 46-50°F (8-10°C).
- It is imperative that cuttings are evenly rooted before disbudding. Plants that are disbudded at varying stages of rooting will result in poor uniformity and uneven growth across the crop.

FERTILITY

Fertilizer Rate	100-125 ppm N with 17-5-17
Short Day EC Range	1.0-1.5 mS via SME
pH Range	5.7-6.2

TEMPERATURE

Day Temperature	67-72°F (19-22°C)
Night Temperature	62-65°F (17-18°C)

IRRIGATION

Irrigation Frequency	Level 3: Keep media moderately moist at all times
Humidity	Humidity should remain between 70-85%. Humidity above 95% increases the risk of disease and should be avoided.

LIGHT

Flowering Photoperiodic requirements	Short Day
Photoperiodic Instructions	Between 12.75-13.5 hours of darkness until flower color is visible.
Supplemental	Optional on cloudy/overcast days
Benefits From Shade?	No

BUD INSTRUCTIONS

Disbud: Remove all side (lateral) buds leaving only those appropriate for a large grandiose display. Disbud when lateral buds are mature enough to be removed with minimal effort ("rolled out").

POTENTIAL DISEASES

Botrytis, Pythium, Rhizoctonia, powdery mildew

POTENTIAL PESTS

Aphids, spider mites, thrips, mealy bugs

GROWTH REGULATION

- B-Nine (85% Daminozide) at 1250-2500 ppm:
 - 7-10 day summer rotation
 - 10-15 day spring/autumn rotation
 - 14-21 day winter rotation).

TIPS

- Switching to clear water when plants are in 30% color will extend shelf life at retail and for the consumer.
- If you can read a newspaper under blackout, it's not dark enough. Streetlights, moonlight, etc should be taken into account to reduce the chance of short day interruption.
- Ensure plants are adequately spaced to promote a strong healthy crop with a rounded habit. Proper spacing accommodates plants touching slightly when full grown.
- Night temperatures above 73°F (23°C) will result in heat delay which will postpone the listed response time. Open blackcloth when complete darkness has fallen to vent stagnate hot air.