AND LINERS

2025





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FALL COLORS

OTHER IDEAS FOR FALL BLOOMING!

Artemisia

Sea Salt - A beautiful display of soft, velvety silver gray leaves. Provides a wonderful accent to other flowering plants. Use in combinations, landscapes or outside perennial gardens. Loves hot and dry conditions. Height 6-10". Zone 5. Propagation prohibited.

Bidens

Blazing™ Ring of Fire - Fire-red petals with glowing yellow center. Mounding habit with flowers across the whole top. Early.

Bracteantha

Cottage - An old-fashioned, cottage garden type of flower. Lovely addition to mixed plantings and cutting gardens. Also works as a flowering pot crop in 4" or larger. Height 8-12". Propagation prohibited.

Bronze

Rose

Yellow

Granvia - Impressive, huge 3-5" blooms feel like crispy paper. Mildew resistant. These vigorous plants are best grown in gallons or larger. Perfect for containers, large patio pots, gardens and landscapes. Not recommended for smaller pots. These guys are heavy drinkers! Height 18-30". Spread 18-24".

Crimson Sun

Gold - yellow flowers with centers that turn orange with maturity

Pink - bubblegum pink. Smaller flowers and vigor.

Carex

Red Rooster - Curled, red-bronze tips on tall erect plants. Height 24". Zones 7-9. Kieft ColorGrass®. Available until June 10 only.



ARTEMISIA SEA SALT



BIDENS BLAZING RING OF FIRE



BRACTEANTHA COTTAGE
BRONZE



BRACTEANTHA COTTAGE ROSE



BRACTEANTHA COTTAGE YELLOW



BRACTEANTHA GRANVIA CRIMSON SUN



BRACTEANTHA GRANVIA GOLD



BRACTEANTHA GRANVIA PINK



CAREX RED ROOSTER



CELOSIA KELOS ATOMIC PURPLE



CELOSIA KELOS FIRE LIME



CELOSIA KELOS FIRE MAGENTA



CELOSIA KELOS FIRE ORANGE



CELOSIA KELOS FIRE RED



CELOSIA KELOS FIRE SCARLET



CELOSIA KELOS FIRE YELLOW



CHLOROPHYTUM GREEN EDGE



CHLOROPHYTUM WHITE EDGE



COREOPSIS DOUBLE THE SUN



COREOPSIS SOLANNA GOLDEN SPHERE



COREOPSIS SOLANNA SUNSET BRIGHT



DIANTHUS JOLT CHERRY



DIANTHUS JOLT PURPLE

Celosia

Kelos® Atomic Purple - (Celosia spicata) Dark purple plumes with green leaves. Propagation prohibited.

Kelos® Fire - (Celosia plumosa) A breeding breakthrough with day length neutral celosia. Simply shines in the full sun landscape with brilliant plumes; very heat tolerant, lots of side blooms, providing season-long color. Versatile plant can be enjoyed indoors or out. Height 15-18". Propagation prohibited.

Lime - lime plumes, green leaves

Magenta - magenta plumes, dark leaves

Orange - orange plumes, green leaves

Red - red plumes, green leaves

Scarlet - scarlet red plumes, dark leaves

Yellow - yellow plumes, green leaves

Chlorophytum

Green Edge - (formerly Variegatum) Long, slender, graceful leaves curve from central rosettes and have a central white stripe. Popular as a hanging basket and lovely in a shady planter.

White Edge - (formerly Ocean) A beautiful spider plant with long green-white striped leaves. A great indoor plant. Fast growing and easy to care for. Produces delicate white blossoms. Height up to 2'.

Coreopsis

Double the Sun - Large semi-double bright yellow flowers are excellent in heat and drought. Ideal for quart and 1 gallon productions. Upgrades Coreopsis, Early Sunrise. Height 12-14". Spread 12-14".

Solanna™ - Fully double blooms in abundance from early spring until fall. Suitable for pot crops and mixed containers, as well as perennial borders. Height 8-10". Zones 4-9. Propagation prohibited.

Golden Sphere - golden yellow

Sunset Bright - medium sized, semi-double deep yellow flowers have a dark red ring around the center

Dianthus - Interspecific **



Jolt[™] - This interspecific dianthus is a well branched plant. easy to grow with little to no pgrs. Extremely heat tolerant, producing flowers all season long without setting seed. Great for summer landscape and container programs. Height 16-24".

Cherry - deep vibrant cherry red color

Purple - deep purple

Dichondra *

Silver Falls - Ideal foliage plant for baskets and mixed containers. Shiny silver foliage cascades 3-4' making a stunning show. Dichondra withstands heat and drought; recovers quickly from wilting and needs no pinching. Also used as a ground cover. Seed availability is very limited.

Dusty Miller *****|▲

Silver Dust - White silvery foliage with deeply lobed leaves. Does best in sun. Heat and cold tolerant. Excellent accent plant. Height 8".

Easyliner

Bonfire - SuperCal premium offers the same excellent performance as SuperCal, with larger flowers, an improved habit and a more mounded, refined growth. Height 14-20". Spread 14-22".

Echinacea purpurea

Cheyenne Spirit - First-year bloomer. Features sought-after shades of red, orange, purple, scarlet, cream, yellow, and white. Extremely well-branched plants, suitable for gallons and quarts. Drought tolerant, full sun. Attractive to birds and butterfies. Height first year 18-24", following years 22-30". Zones 4-10.

Magnus - Produces huge reddish-pink cone flowers with deep orange centers. Easy to grow and withstands drought, humidity and harsh winter conditions. A great pollinator plant. Height 36". Spread 18-24". Zones 4-9.

PowWow® - Breakthrough breeding brings more flowers per plant in both the first and second year. White and Wild Berry are well matched in habit and bloom time. Height 20-24". Bloom size 3-4". Zones 4-10.

White

Wild Berry - AAS Winner

Sombrero® - Extremely floriferous with great branching habit and brilliant colors perfect for summer and fall. Flat flower form, not as deeply reflexed, truly resembles a sombrero. Excellent habit for pot production for a great show at retail. Series is well matched for habit and timing. Grown from virus-indexed tissue culture stock. Good winter hardiness, excellent branching. Height 18-20". Zones 4-9.

Lemon Yellow - brilliant golden yellow

NEW Mandarin Mambo

Salsa Red

Tres Amigos - opens in a peachy-coral. Ages to rose, and fades to burgundy.



DICHONDRA SILVER FALLS



DUSTY MILLER SILVER DUST



EASYLINER BONFIRE



ECHINACEA CHEYENNE SPIRIT



ECHINACEA MAGNUS



ECHINACEA POW WOW WHITE



ECHINACEA POW WOW WILDBERRY



ECHINACEA SOMBRERO LEMON YELLOW



ECHINACEA SOMBRERO MANDARIN MAMBO



ECHINACEA SOMBRERO SALSA RED



ECHINACEA SOMBRERO TRES AMIGOS



ECHINACEA SUNSEEKERS APPLE GREEN



GOLDEN SUN



ECHINACEA SUNSEEKERS SWEET FUCHSIA



ECHINACEA SUNSEEKERS MINEOLA



ECHINACEA SUNSEEKERS **TEQUILA SUNRISE**





EUCALYPTUS SILVER DOLLAR



NEPHROLEPIS EXALTATA **BOSTON BLUE BELLS**



NEPHROLEPIS EXALTATA **BOSTON TRUE**



BLECHNUM SILVER LADY



NEPHROLEPIS EXALTATA **COTTON CANDY**



NEPHROLEPIS BISERRATA масно



NEPHROLEPIS EXALTATA **FLUFFY RUFFLES**

SunSeekers - First-year bloomer. SunSeekers features a unique array of flower colors on a single plant! Produces masses of flowers with vibrant colors that don't fade. Has exceptional vigor and a dense habit. Attracts butterflies and hummingbirds. Deer resistant. Use in beds, borders, containers or mass plantings. Height 18-24". Spread 18-24". Zones 4-9.

NEW Apple Green

Golden Sun

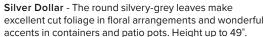
Mineola - orange/tangerine flowers with a large brown cone

NEW Pumpkin Pie

Sweet Fuchsia - fuchsia/pink petals with green cones that will darken with age

Tequila Sunrise - two-toned golden yellow with orange/red centers

Eucalyptus **



Ferns

Blechnum Silver Lady - Silver Lady looks more like a palm tree than a fern, very upright. Can be used indoors or out. Use as a pot plant, not suitable for hanging baskets. Height 36-60". Spread 24-36".

Nephrolepis biserrata Macho - Broad, dark green foliage with an open habit and rather leathery leaves. Useful in the landscape or as a house plant. Can be grown in wetter conditions than other ferns. Use in 10" or larger pots or baskets. Height 18-20".

Nephrolepis exaltata

Boston Blue Bells - The most popular Boston type in Europe. Fast growing and very uniform. Tight compact habit, making it excellent for mass production. Good for 3-12" pots. Height 20".

Boston True - The original tried and true, and the "Grandfather" of many of the other Nephrolepis varieties on the market! Fast growing with large fronds. Good for all pot sizes. Height 20".

Cotton Candy - The cotton candy fern has soft, fluffy chartreuse-colored fronds. It can be planted indoors or outdoors in shady areas in large containers or hanging baskets. Height 20". Spread 2-3'.

Fluffy Ruffles - A real beauty, with very closely drawn fronds which create a fluffy appearance and almost leathery texture. Good for all pot sizes. Height **Nevada** - An improved strain of Boston fern, with less shedding, less thatch and fewer runners so it keeps more tidy. Suitable for 6-10" production. A very strong selection from the true Boston. Height 20". Propagation prohibited.

Nephrolepis obliterata Emerald Queen - A sterile form of Sword Fern, very hardy and strong. Excellent for indoor use and outdoors. Leaflets are a little broader than Sword Fern. Under high light conditions, habit is more erect. Can withstand full sun. Useful in 4-12" containers.

Flowering Cabbage

Osaka "Dynasty" - Large wavy edged leaves. Color intensifies with frost. 10-12" tall.

IQ Pink Bicolor

IQ Red

IQ White

IQ Mix

Pigeon - Looks like large, exotic flowers this series has a robust habit and are perfect for fall and spring gardens. 8-12" tall.

Purple

Red

Victoria

White

Song Bird - This series has excellent doubleness with a compact habit. It's high leaf (petal) count creates a beautiful plant. Each leaf has a slight wave giving the plants an exquisite, refined presentation. Plants are more upright than the Pigeon series, allowing for better drainage of water, reducing disease pressure. 8-12" tall.

Pink

Red

White

Mix

Flowering Kale

Heavily fringed leaves. Color intensifies with frost, and lasts long into the cold season.

Bor - Intensely curled, leaves are both ornamental and delicious. Best in early spring or fall, since it loves cool weather. 24-26" tall.

Scarlet

Winter



NEPHROLEPIS EXALTATA





OSAKA IQ PINK BICOLOR



FLOWERING CABBAGE OSAKA IQ RED



FLOWERING CABBAGE OSAKA IQ WHITE



FLOWERING CABBAGE OSAKA IQ MIX



FLOWERING CABBAGE PIGEON PURPLE



FLOWERING CABBAGE PIGEON RED



FLOWERING CABBAGE PIGEON VICTORIA



FLOWERING CABBAGE PIGEON WHITE



FLOWERING CABBAGE SONG BIRD PINK



FLOWERING CABBAGE SONG BIRD RED



FLOWERING CABBAGE SONG BIRD WHITE



FLOWERING CABBAGE SONG BIRD MIX



FLOWERING KALE BOR SCARLET



FLOWERING KALE BOR WINTER



FLOWERING KALE CRYSTAL DEEP RED



FLOWERING KALE CRYSTAL PINK



FLOWERING KALE CRYSTAL SNOW



FLOWERING KALE DINOSAUR



FLOWERING KALE GLAMOUR RED



FLOWERING KALE
KAMOME BRIGHT RED



FLOWERING KALE
KAMOME BRIGHT WHITE



FLOWERING KALE KAMOME PINK



FLOWERING KALE NAGOYA RED



FLOWERING KALE NAGOYA ROSE



FLOWERING KALE NAGOYA WHITE



FLOWERING KALE PEACOCK RED



FLOWERING KALE PEACOCK WHITE



FLOWERING KALE YOKOHAMA RED



FLOWERING KALE YOKOHAMA WHITE



FLOWERING KALE YOKOHAMA MIX

Crystal - Ruffled heads with glossy, wavy leaves grow uniformly. A kale variety with loose leaves shows off brilliant color. Excellent for fall and early winter programs. Height 10-12"

Deep Red

Pink

Snow

Dinosaur - long and slender leaves, reaching 2 feet long with a heavily savoyed texture that looks almost bubbled. Color ranges from blue-green to dark forest-green to nearly black.

Glamour Red - Shiny red inner leaves, shiny dark green outer leaves. Grown for its unique shiny leaves which create a dramatic contrast to the colorful rosette of center leaves, looking like a large, exotic flower. 10-12" tall.

Kamome - Perfect for fall and winter gardens, it adds color, texture and interest to both landscapes and containers. An ideal season extender as it tolerates frost and light freezes, and cool night temperatures bring out its color. 8-12" tall.

Bright Red

Bright White

Pink

Nagoya "Emperor" - Produces attractive, colourful fringed leaves and is effective for cool season bedding as well as combination containers. Height 8-10".

Red

Rose

White

Mix

Peacock - Works well in wet conditions as the open, feathery leaves are less likely to trap and hold water than fringe and round-leaf types. Height 8-12".

Red

White

Yokohama - features very unique, extra-curly fringed leaves that form nicely mounded plants. Yokohama looks great planted alone, in garden beds or in mixed containers. This outstanding series also offers improved cold tolerance. 5-7" tall.

Red

White

Mix

Gaillardia

Arizona - Excellent branching habit. Great for hot weather and a top selling perennial. Suitable for pot crops, mixed containers and perennial beds. Height 8-10". Zones 2-10.

Apricot - AAS Winner

Red Shades

Sun - AAS Winner, Red and vellow bicolor.

Mesa™ Red - Brighter, more consistent red, plus one week earlier than Arizona Red. A vigorous F1 hybrid. Well branched and early blooming, suitable for pot crops. Height 16". Zones 5-9.

SpinTop - Developed specifically for container production, but still attains full garden performance. Dazzling, large blooms on compact plants. Height 8-12". Zones 3-9. Propagation prohibited.

Mariachi Copper Sun - orange, red and yellow spoon-like flowers

Orange Halo - intense orange, with yellow outer ring

Red - red with dark red centers

Red Starburst - yellow with red center

Hedera

"English Ivy" - This hardy accent plant makes a great addition to mixed planters or baskets. Can also be grown as a foliage basket for winter indoor use. Does okay in low light. Feed lightly.

Luzii - Irregular leaf patterns in a heavily mottled yellow-green color. An all-season performer with a compact, trailing habit that will climb if supported. Best suited for 4-6" pots for indoor use, or in baskets, containers and in the garden. Indoor height 8-10". Outdoor height up to 40". Spread 20". Zone 4.

Needlepoint - Green sharply-pointed leaves. Zones 6-11.

Teardrop - Pointy teardrop-shaped leaves are glossy dark green. Strong compact plants. Height 8-10". Zones 5-10.

Yellow Ripple - Showy, yellow-green leaves have 3-5 points each, and are perfect for partly sunny and shaded areas. Can be used as a ground cover or over walls and hills for a cascading effect. Also great as a "spiller" in baskets. Height 3-6". Can grow up to 30' long. Zones 5-9.

Helianthus

SunBelievable Brown Eyed Girl - Large vibrant blooms are a sunny yellow color with rustic red surrounding the large brown center. Produces over 1,000 flowers in one season, from Spring to Fall. This non-invasive sunflower is multi-branching and heat tolerant. Excellent for borders and containers or cut flowers. Height 32". Spread 40". Propagation prohibited.



GAILLARDIA ARIZONA APRICOT



GAILLARDIA SPINTOP MARIACHI COPPER SUN



HEDERA LUZII



HELIANTHUS SUNBELIEVABLE **BROWN EYED GIRL**



GAILLARDIA ARIZONA RED



GAILLARDIA SPIN TOP ORANGE HALO



HEDERA NEEDLEPOINT



HEDERA TEARDROP

HELIANTHUS SUNFINITY YELLOW WITH DARK CENTER



GAILLARDIA ARIZONA SUN





GAILLARDIA SPINTOP RED STARBURST IMPROVED



HEDERA YELLOW RIPPLE



SUNTASTIC YELLOW WITH **BLACK CENTER**



HELIANTHUS SUNMAZING



HEUCHERA CARNIVAL CINNAMON STICK



HEUCHERA CARNIVAL PLUM CRAZY



HEUCHERA CARNIVAL ROSE GRANITA



HEUCHERA INDIAN SUMMER BLACKBERRY



HEUCHERA INDIAN SUMMER CHERRYBERRY



HEUCHERA INDIAN SUMMER MULBERRY



HEUCHERA INDIAN SUMMER ORANGEBERRY



HEUCHERA INDIAN SUMMER SILVERBERRY

HEUCHERA CITRONELLE



HEUCHERA INDIAN SUMMER SPLASHBERRY



HEUCHERA MAGMA

Sunfinity Yellow with Dark Center - Sunfinity produces loads of blooms over the entire season! Be sure to see detailed culture information sheet. Height up to 36-48".

Suntastic Yellow with Black Center - AAS Winner. Suntastic is the smallest on the market. Perfect as a potted plant or in window boxes. Extremely floriferous - up to twenty 5-6" flowers per plant in three successive blooming periods. Pot height 10". Garden height up to 24".

SunMazing - 4" flowers sit on heavily branched plants that continuously rebloom all season long. The large plants are ideal for late spring and early summer planters, or landscape. Heat and drought tolerant. In the landscape, height and spread is 3' by 3'. In containers, they are more restricted so expect a shorter plant.

Heuchera

Carnival - A beautiful palette of foliage awaits in the Carnival series. These heat tolerant villosa types make an excellent choice for shady beds or containers. Note that temperatures affect the coloration. Will also display blooms for up to 5 months. Height 10-12". Zones 4-9. Propagation prohibited.

Cinnamon Stick

Plum Crazy

Rose Granita

NEW Citronelle - Lime/yellow-green leaves on a compact habit, this vigorous, clump forming plant is a great choice for borders, rock gardens or as a ground cover. Mid-summer, taller sprays of small bell-shaped cream flowers appear adding another touch of color . Heat tolerant, shade tolerant. Height 6-10". Width 12-14". Zones 4a-9b.

Indian Summer - Indian Summer has a wide range of colors to choose from. This compact series has outstanding heat and sun tolerance, and can be grown with minimal shade. Use in combinations, gardens and containers. Height 16". Zones 4-9. Propagation prohibited.

Blackberry

Cherryberry

Mulberry

Orangeberry

Silverberry

Splashberry

Magma - This gorgeous plant starts off bright pink or purple, then turns vibrant red and burgundy in Autumn. Its leaves can grow up to 8" across. Has a tidy habit with clusters of pink blossoms on 30" stems, appearing in early summer. Height 14" (when not in bloom). Spread 24". Zones 4-9. Propagation prohibited.

Lysimachia

nummularia Karat - Greenish-gold leaves will turn bright yellow in full sun. Trails 24".

Marigolds - French **

Fireball™ - Multicolor blooms on the same plant in shades of red and orange. Height 10-12".

Strawberry Blonde - Multicolor blooms on the same plant in shades yellow to bronze. About 3 days earlier than Fireball. Height 8-10".

Miscanthus

sinensis Gold Breeze - "Zebra Grass" - This variegated "Maiden Hair" has graceful arching green stems with gold bands and feathery red plumes in late summer. Gold Breeze will add beautiful color wherever they are planted, whether in a perennial garden, or as smaller shrubs. They can also be used for cut or dried flowers. Height 60-72" (up to 84" with flower). Spread 12-36". Zones 5-9. Available until June 10 only.

Ornamental Pepper **

Chilly Chili - Child-safe! Non-pungent fruit that matures from greenish vellow to orange to dark red. Good for 4½-6" pots. Produces 2-21/2" blunt-nosed fruit on 9-10" plants.

NEW Onyx Orange - Features small, round, shiny fruit that changes from purple/black to orange as it matures on compact, dark foliage. The horizontal leaves make the fruit visible in beds, borders, or mixed containers. It has extreme heat tolerance and a long shelf life. Height 6-12". Width 6-8".

Purple Flash - Multi-colored black, purple, green, and cream foliage creates an exotic pot plant or accent for mixed containers. Small, round, black fruits are extremely hot. Excellent heat tolerance. Height 13-15".

Pennisetum

Available until June 10 only.

Cherry Sparkler - The variegated foliage of this grass is white and dark pink, with a thin green stripe. The center of the plant is mostly white with pink color starting halfway down the blade. The plumes are dark pink to burgundy. Needs intense sunlight and full maturity to display full color. Height 36-48". Zones 9-11. Propagation prohibited. Part of ItSaul Plants' Celebration series.

Fireworks - The first variegated purple fountain grass. The midvein is the typical burgundy color and is flanked by hot pink margins! Needs intense sunlight and full maturity to display full color. Foliage height to 24". Zones 9-10.



LYSIMACHIA NUMMULARIA





MARIGOLD STRAWBERRY



MISCANTHUS SINENSIS GOLD BREEZE







PENNISETUM CHERRY SPARKLER





ORNAMENTAL PEPPER ONYX ORANGE



PENNISETUM FIREWORKS



PENNISETUM RUBRUM



PENNISETUM SKY ROCKET



PETCHOA SUPERCAL PREMIUM **CARAMEL YELLOW**



PETCHOA SUPERCAL PREMIUM CINNAMON



PETCHOA SUPERCAL PREMIUM RUDBECKIA AMARILLO GOLD

RUDBECKIA GOLDBLITZ



RUDBECKIA CHERRY BRANDY



PETUNIA SUPERCAL PREMIUM FRENCH VANILLA



PETCHOA SUPERCAL PREMIUM RED MAPLE



PETCHOA SUPERCAL PREMIUM SUNSET ORANGE



RUDBECKIA AUTUMN COLORS

Propagation prohibited. Part of ItSaul Plants' Celebration series.

rubrum - "Purple Fountain Grass" A perfect fall grass with its deep red foliage and dramatic purple-red plumes. Flowers displayed all summer long. Beautiful in the land-scape or mixed containers. Needs intense sunlight and full maturity to display full color. Height 3-4'. Annual except in Zones 9-10.

Sky Rocket - Bright white and green variegated foliage with plumes that are white with a pink blush. Stands out in the landscape and in containers. Needs intense sunlight and full maturity to display full color. Height 48". Zones 9-10. Propagation prohibited. Part of ItSaul Plants' Celebration Series.

Petchoa

SuperCal® Premium - This series brings you the same great flower power that you've come to love with the added benefit of a more mounded, controlled habit. Early blooms and medium vigor.

Caramel Yellow

Cinnamon

French Vanilla

Red Maple - irredescent scarlet to orange glow

Sunset Orange - shades of orange and yellow

Yellow Sun - bright golden yellow with darker veins

Rudbeckia

Amarillo Gold - AAS, and 2020 Fleuroselect Gold Medal Winner! An eyecatcher with large 4-6" golden flowers with green centers. This bushy, compact plant is earlier to flower and shows color from spring to fall, giving a wow factor in any garden. Great for containers, or landscapes. Deadheading is recommended. Height 12-18". Tender perennial.

Autumn Colors - Fleuroselect Quality Mark - gigantic 5-7" flowers have variable red rings and brown centers. Very striking! Blooms all summer. Tender perennial. Garden height 20-24".

Cherry Brandy - Unique cherry-red blooms with dark rings and black tones. Excellent for beds, borders and cut flowers. Flowers are 3-4" in diameter. Height 24". Tender perennial.

Goldblitz - Fleuroselect Gold Medal winner. A first year flowering Rudbeckia that is cold hardy - a breakthrough! Goldblitz will replace Goldsturm, with a slightly smaller flower and leaf size but just as beautiful! Blooms Summer, late Summer and Autumn. 2-3 weeks earlier than Goldsturm. Height 24-28". Spread 14-18". Zones 3a-9b.

Goldsturm (fulgida) - Large, golden yellow flowers on 48" plants. Zones 4-8.

Indian Summer - AAS Winner. Large 6-9" golden yellow single and semi-double blooms. Outstanding basal-branching habit that does not require staking. Early flowering. Outstanding garden performance and also used as cut flower. Tender perennial. 36" tall.

MiniBeckia Flame - Bright yellow, daisy-like flowers with rich orange-burgundy centers stand out against lush, green ovate foliage. Their self-branching growth and compact habit reach a height of 18"-24", offering continuous blooms for over 8 weeks.

Pawnee Spirit - A compact sister to Denver Daisy, Pawnee Spirit is yellow with a larger dark center. Outstanding garden performance with great rain tolerance. Very early and uniform flowering. Height 20". Tender perennial.

Tradescantia *



Formerly known as "Wandering Jew". A great plant for baskets or combinations. Fast growing, trailing habit. Easy to grow. Height 4-8". Spread 10-24".

Pistachio White - Heavy white variegation on green leaves

Vinca minor

A spreading groundcover plant, excellent for shade and moist areas, especially good for erosion control on hillsides.

Bowles - "Common Periwinkle, Common Myrtle" Small glossy green leaves and small blue flowers. 4-6" tall, spreads up to 3'. Zones 4-9.

major Variegated - Ever popular variegated vine. Does best with some shade.

minor Illumination - Bright chartreuse centers surrounded by dark green - an accent that "illuminates" any combination. Zone 5.

Zinnia

Profusion - Early, continuous blooming plants perform well under both warm and cool conditions with high humidity. Excellent tolerance to disease including Powdery Mildew and Bacterial Leaf Spot. Single blooms. Heat and drought tolerant. Full sun. Height 12-18".

Cherry Bicolor - varied shades of cherry and white

Red Yellow Bicolor - National AAS Gold Medal Winner. Judges comments: "Wow, Wow, Wow!" This gorgeous zinnia starts the season with a bold vibrant red center ring surrounded by golden yellow outer petals, and ages into soft, beautiful shades of apricot, salmon and dusty rose. "Just so cute!"



RUDBECKIA GOLDSTURM



TRADESCANTIA PISTACHIO WHITE



RUDBECKIA INDIAN SUMMER



RUDBECKIA MINIBECKIA



RUDBECKIA PAWNEE SPIRIT



VINCA BOWLES



VINCA VINE MAJOR VARIEGATED



VINCA MINOR ILLUMINATION



ZINNIA PROFUSION CHERRY **BICOLOR**



ZINNIA PROFUSION RED YELLOW BICOLOR



COTYLEDON SILVER PEAK



ZINNIA PROFUSION YELLOW



ZINNIA PROFUSION DOUBLE FIRE



CRASSULA CAMPFIRE



CRASSULA OVATA MINOR



ALOE PINK BLUSH



CRASSULA HOBBIT



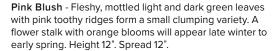
CRASSULA OVATA SUNSHINE

Yellow - brilliant yellow with rich golden "picotee" edge matures to solid yellow. Much more uniform than Zahara Yellow.

Profusion Double Fire - Fully double flower on the popular Profusion plant. Larger flowered, but all the great qualities of the original series.

SUCCULENTS

Aloe *



Cotyledon §

Silver Peak - "Pig's Ear" - Fleshy upright, narrow elongated leaves on short branches. Color ranges from green to blue-gray, and red edging appears under stress. Drought tolerant, perfect for outside planting in southern climates. Plant in pots in cooler areas so you can bring them inside when temperatures drop. Dusky-pink flowers appear mid summer. Height 6-12"(12-15" in bloom). Spread 10-12". Zones 9-10.

Crassula

A group of succulents, used for groundcover in dry areas, or for mixed containers, potted plants, or bonsai. Extremely heat and drought tolerant, but sensitive to cold.

Campfire - fleshy leaves in a "propeller" pattern turn a bright flame color under cool night conditions. Height up to 12". Prefers some light shade.

Hobbit - Strong tubular "fingers" of foliage make an interesting texture in succulent gardens. May grow very large in warm climates. Useable as a house plant with adequate lighting. Do not overwater. Height 1-3'.

ovata minor - "Baby Jade" - Branching shrub with stout stems. Rounded, glossy green, thick leaves may mature with reddish edges. In warm climates this variety produces star-shaped white flowers in autumn. Tender soft succulent - will not tolerate frost, but is extremely drought tolerant. Great for living wreaths, weddings, or indoor spaces. Garden height 12-24".

ovata Sunshine - Branching succulent with stout stems. Rounded, glossy yellow, thick leaves may mature with reddish edges. Excellent heat and drought tolerance. Garden height 12-24".

perforata variegata - "Variegated String of Buttons or Variegated Necklace Vine" is a small shrubby, sprawling succulent. Stems are erect and fleshy, later becoming prostrate and woody. The oval leaves are gray-green, edged in pink. Flowers are very small, star-shaped and white. This fast-growing variety is moderately easy and should be planted in a bed with bright morning sun or afternoon sunlight. Height 3.5".

Delosperma **

"Ice Plant"

With mat-forming succulent foliage and daisy-like 1" flowers, this plant thrives in heat and drought. Good for sunny rock gardens or banks (excellent drainage is a must). Ideal groundcover, tolerates foot traffic, keeping stone work weed free. Easy to grow, attracts bees and butterflies, deer resistant.

echinatum Gherkin - "Pickle Plant" - Long barrel shaped green leaves bristled with soft spine-like white hairs. They look like Gherkin pickles! Pale yellow flowers appear late winter through fall. This low, sprawling succulent can grow up to 18" tall. Zones 7-9.

Echeveria

An easy to grow succulent that is great for rock gardens. Looks wonderful in small dish gardens combined with other succulents or cactus. Also great for green roofs.

Coral Reef Pink - Gray/green with soft pink edges. This series has leaves with thin ruffled edges which add great texture and color to combinations or rock gardens. Recommended for 4-6" containers or as a stand alone. Plant in well drained soil. Height 10". Spread 12".

Lilacina - Wide gray leaves with pointy ends.

Mensa - Densely packed thick leaves with pointy ends in a rosette shape. The gray-green leaf color will flush pink/ purple in bright sunlight. Height and spread 8".

Purple Perle von Nürnberg - Broad deep purple pointed leaves. More intense purple coloring than the others in this series.

Red Prince - A fast growing Echeveria with large burgundy/red leaves that will fade to a pleasing matte color over time. Large bell-shaped orange flowers will bloom late spring. Height 4-6". Spread 8".

subsessilis Blue - Chalk blue chubby leaves.

Vertis - formerly called Elegans. Delicate, rounded, florets of milky green.

Mixed - Our mix of several echeverias for your ordering convenience.



CRASSULA PERFORATA VARIEGATA



GHERKIN



ECHEVERIA CORAL REEF PINK



ECHEVERIA LILACINA



ECHEVERIA MENSA



ECHEVERIA PURPLE PERLE VON NÜRNBERG



ECHEVERRIA RED PRINCE



ECHEVERIA SUBSESSILIS BLUE



ECHEVERIA VERTIS



ECHEVERIA MIXED



GASTERIA ROYAL WOLFGANG



KALANCHOE DESERT ROSE



PEPEROMIA STRING OF TURTLES



SEDUM DASPHYLLUM MAJOR



SEDUM CREEPING LIZARD



PORTULACA MOLOKINIENSIS



SEDUM CHOCOLATE BALL



SEDUM CORAL REEF



SEDUM LEMON BALL

Gasteria *

Royal Wolfgang - Rosette formation with triangular-shaped deep green leaves, white speckles, and small tooth-like edges.

Kalanchoe

Desert Rose "Red Lips" - white flowers with a pink blush and edged in dark pink. Big, oval, succulent leaves are gray-green with pink edge. **Warning:** all parts of Desert Rose are poisonous and should be kept out of reach of children and animals

Peperomia **



Portulaca

Molokiniensis - This interesting, soft succulent has glossy lime green, cupped leaves, stacked on an upright stem. Produces clusters of small, lemon-yellow, cup shaped flowers. Height 12".

Sedum Creeping

(SEE-dum) | "Stone Crop"

Versatile sedums are very drought tolerant. Excellent for fairy gardens, perennial beds, and green roofs.

Chocolate Ball - Creeping, mat forming habit with needle-like, chocolate-colored foliage. Drought tolerant creeper for green roofs or rock gardens. Height 8". Zones 4-9.

Coral Reef - A wonderful spreading mat of small, rounded, deep green leaves with tiny star-shaped yellow flowers that appear in the summer. Will tolerate light traffic. Excellent for rock gardens or as a lawn substitute for small to mid sized areas. Height 3-4". Spread 10-12". Zones 4-9.

dasphyllum Major - Low carpet of rounded, blue-gray leaves excellent for ground cover, fairy gardens, green roofs and rock gardens. Height 2-4". Spread 8-12". Zones 5-9.

Lemon Ball - Succulent needle like foliage in bright chartreuse. Bright yellow blooms. Height 6-8". Zones 3-11.

Lizard - A sedum from seed that grows very fast, forming a mat of tiny pointed leaves. Starts out gray-green, but will turn a rosy color in high light as it matures. Drought and heat tolerant. Its compact, spreading habit works well in beds, containers, or as a ground cover. Height 4". Spread 8-10". Tender perennial, zones 8-10.

makinoi Ogon - "Golden Japanese Stonecrop" An attractive, tiny-leaved, bright gold, ground-cover sedum with a mounding habit. Its red stems make a nice contrast to the foliage. This sedum is heat tolerant and should be planted in sun to part sun. Height 2-4". Zones 7-9.

sieboldii - (see-BOL-de-eye) Nicely rounded leaves with pink margins. Cold temperatures darken the contrast. Mounding, "fountain" habit. Especially pretty in mixed containers with other dwarf plants. Height 6-10". Zones 3-9.

Sunsparkler - A groundcover sedum type that is outstanding in mass plantings. Height 6-8". Spread 16-18". Zones 4-9. Propagation prohibited.

Firecracker - Shiny red foliage with bright pink

Plum Dazzled - Dark purple foliage with cherry colored flowers

Turkish Delight - This charming succulent has carmine-pink flowers and deep purple foliage. Perfect for rock gardens, containers and borders. This plant requires well drained soil, it is reliable, hardy and easy to grow. Height 4-6". Zones 3-10.

NEW Voodoo - Very compact, well-branched plants that turn deep red in the sun. Bright rose blooms in the summer. Height 3-4". Width 10-15". Zones 3a-9b.

What a Doozie - Stands out all season long with its attractive white and green variegated foliage. Spreading habit. Blush pink and creamy pink flowers appear in the fall. Height 2-5". Spread 11-14". Zones 5-9.

Mixed - Our mix of several creeping sedum for your ordering convenience.



SEDUM MAKINOI OGON



SEDUM SIEBOLDII

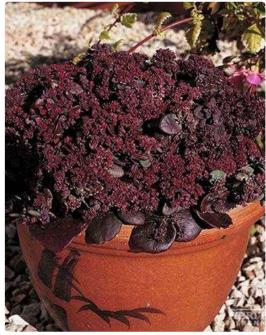


SEDUM SUNSPARKLER FIRECRACKER





SEDUM VOODOO



SEDUM TURKISH DELIGHT



SEDUM WHAT A DOOZIE



SEDUM MIXED



STRING OF PEARLS

SEMPERVIVUM SUPERSEMPS ONYX



SENECIO BLUE CHALK FINGERS



SEMPERVIVUM COBWEB



SEMPERVIVUM ROYAL RUBY



SEMPERVIVUM SUNSET



SEMPERVIVUM MIXED

Sempervivum

"Hens and Chicks, Houseleeks"

Easy to grow and adaptable to many conditions, Hens and Chicks are well loved by gardeners for use in containers, rockeries, grave sites and even rooftops! They spread and multiply and seem to fulfill their name sempervivum - "always living". Drought tolerant. Does not display flowers until the 3rd year. Zones 3-7.

Cobweb - Ruby tinted rosettes of foliage adorned with spider-web like filaments.

Royal Ruby - Forms mats of wine-red foliage.

Sunset - Lime green with maroon tips. Very showy.

SuperSemps Onyx - Produces large 8" single rosettes in as little as 20 weeks. Stunning geometric leaves are a dark mahogany-black.

Mixed - Our assortment of Sempervivum for your ordering convenience.

Senecio

Blue Chalk Fingers - Dramatic texture plant with long, silvery blue, needle-like, succulent leaves. Upright habit reaches up to 24" tall. Hardy in zone 7 and the South.

rowleyanus - "String of Pearls" is a creeping, succulent vine with pearl-like foliage. Vigorous and easy to reproduce. Poisonous if consumed. Height under 6" with massively long "strings of pearls". Not hardy.

A FEW NOTES

ABOUT

Tray Sizes

144 TRAY

20x10" true-size tray. Guaranteed count indicated per variety in "count per tray" column on price list. Available for asters and mums.



2 X 51 TRAY

20x10" true-size tray. Two strips of 51 each sold as 50 count. One strip counts as ½ tray toward volume discount. Available for asters and mums.



Mums

For all mums, the timing chart is based on Stage 1 flowering, as shown here.

One tag per plant is provided. All mum varieties are protected. Propagation prohibited.

You can choose between an un-pinched 51 ct tray or an un-pinched 144 ct tray.









ASTERS

A V A I L A B L E I N 5 1 A N D 1 4 4 C O U N T T R A Y S



BELIEVER PURPLE Vigor Med



HAZY DARK PINK Vigor Med



HENRY I PINK Double | Vigor Med



HENRY III PURPLE Double | Vigor Med



MAGIC PINK Vigor Med



DAYS BLUE Vigor Med



DRAGON BLUE Vigor Med



HENRY I BLUE Double | Vigor Med



HENRY I PURPLE
Double | Vigor Med



HENRY III PINK Double | Vigor Med



MAGIC PURPLE Vigor Med



MARIE III DARK PINK Double | Vigor Sm



PETER III BLUE Double | Vigor Med



PUFF WHITE Vigor Med



SHOWMAKERS ARCTIC WHITE



SHOWMAKERS BLUE BAYOU Vigor Med



SHOWMAKERS PRETTY PINK Vigor Med



MONTAUK DAISY



A FEW NOTES

Aster cuttings are "pinched". One tag per plant. Propagation prohibited. Asters are an ideal fall-blooming perennial, complementing a fall mum program by adding the colors blue and raspberry. These hardy asters perform well in pots, tubs, and perennial gardens. Cultural practices are similar to garden mums, making it simple to expand your line.

VARIETY	NORTH*	SOUTH*
Dragon Blue	36.0	34.0
Magic Pink	36.0	34.0
Magic Purple	36.0	34.0
Puff White	36.0	34.0
Henry I Blue	36.5	34.5
Henry I Pink	36.5	34.5
Henry I Purple	36.5	34.5
Believer Purple	37.0	35.0
Days Blue	37.0	35.0
Hazy Dark Pink	37.0	35.5
NEW Showmakers Indigo Ice	38.5	36.5
Marie III Dark Pink	38.5	37.5
Henry III Pink	39.0	37.5
Henry III Purple	39.0	37.5
Showmakers Arctic White	39.0	37.5
Showmakers Blue Bayou	39.0	37.5
Showmakers Pretty Pink	39.0	37.5
Peter III Blue	39.0	38.0
Montauk Daisy	39.5	39.5
NEW Showmakers Magenta	40.0	38.0

*CHART SHOWS NATURAL RESPONSE

KEY TO PHOTO CAPTIONS Bloom Description | Vigor Sm-Lg



DÜMEN

BRONZE / ORANGE



APPLE CIDER Med-Lg | Vigor Med



BALANCE BRONZE BICOLOR Med-Lg | Vigor Lg



BANQUET RED BICOLOR Med | Vigor Med



CRUSH ORANGE Med | Vigor Med



DITTO BRONZE Sm-Med | Vigor Sm/Med



DITTO DARK ORANGE Sm-Med | Vigor Sm/Med



FLAME BICOLOR Med | Vigor Med



FLASH BRONZE Med | Vigor Med



GOAL ORANGE Lg | Vigor Med



HOMERUN ORANGE Lg | Vigor Med



HOMERUN SCARLET Lg | Vigor Med



JAMBOREE RED YELLOW Med-Lg | Vigor Med



JOLLY DARK BRONZE Med | Vigor Med



VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Solar Flare	33.0	35.0
Reef Bronze	34.0	35.0
Sunblaze Flame	34.0	35.0
Crush Orange	35.0	36.0
Flame Bicolor	35.0	36.0
NEW Flash Bronze	35.0	36.0
Lively Bronze Bicolor	35.0	36.0
NEW Solstice Bronze	35.0	36.0
Apple Cider	36.0	37.0
Balance Bronze Bicolor	36.0	37.0
NEW Ditto Bronze	36.0	37.0
Ditto Dark Orange	36.0	37.0
Goal Orange	36.0	38.0
Jolly Dark Bronze	36.0	37.0
Karamum 24 Bronze	36.0	36.0
Merry Bronze Bicolor	36.0	37.0
Touchdown Orange	36.0	37.0
NEW Jolt Bronze	37.0	37.0
Homerun Orange	37.0	38.0
Homerun Scarlet	37.0	38.0
Tiger Eyes	37.0	38.0
Jamboree Red Yellow	38.0	39.0
Melody Bronze	39.0	40.0
Toast Orange	40.0	41.0
Banquet Red Bicolor	41.0	42.0

KEY TO PHOTO CAPTIONS Bloom Size: Sm-XL | Vigor Sm-Lg



DÜMMEN

PINK / PURPLE



BANQUET PINK BICOLOR Med | Vigor Med



BUZZ LAVENDER Med-Lg | Vigor Med/Lg



CONCERT PURPLE Med | Vigor Med



ELATED PURPLE Med | Vigor Med



DITTO DARK PINK Sm-Med | Vigor Sm/Med



FESTIVE PURPLE Med | Vigor Med



BANQUET PURPLE Med | Vigor Med



BERRY BLAST BICOLOR Med-Lg | Vigor Sm/Med



CHERRY PURPLE Sm-Med | Vigor Sm/Med



ECSTATIC PURPLE Med | Vigor Med



HOMERUN PINK Lg | Vigor Med



VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Lagoon Purple	34.0	35.0
Shore Appleblossom	34.0	35.0
Buzz Lavender	35.0	35.0
Ecstatic Purple	35.0	36.0
Elated Purple	35.0	36.0
Lively Pink Bicolor	35.0	36.0
Peppermint Passion Pink	35.0	36.0
Strawberry Ice	35.0	36.0
Ditto Dark Pink	36.0	37.0
Lucky Purple	36.0	37.0
Touchdown Bicolor Pink	36.0	37.0
Touchdown Purple	36.0	37.0
Cherry Purple	37.0	38.0
Homerun Pink	37.0	38.0
Berry Blast Bicolor	38.0	39.0
Jamboree Pink White	38.0	39.0
Jamboree Purple White	38.0	39.0
Festive Purple	39.0	40.0
Concert Purple	40.0	41.0
Banquet Pink Bicolor	41.0	42.0
Banquet Purple	41.0	42.0

KEY TO PHOTO CAPTIONS Bloom Size: Sm-XL | Vigor Sm-Lg



DÜMMEN

RED / WHITE YELLOW



BUZZ MERLOT Med-Lg | Vigor Med/Lg



CATCH RED Sm | Vigor Med



CHEERFUL RED Med | Vigor Med



CHERRY RED Sm-Med | Vigor Sm/Med



CHILI RED Med | Vigor Sm/Med



FIESTA RED Med | Vigor Med/Lg



JUBILANT RED Med | Vigor Med

CHEER RED



POWER RED Med | Vigor Med/Lg



SEASIDE RED Sm-Med | Vigor Sm/Med



VOLLEY RED Sm-Med | Vigor Sm/Med



CALM WHITE Med | Vigor Med



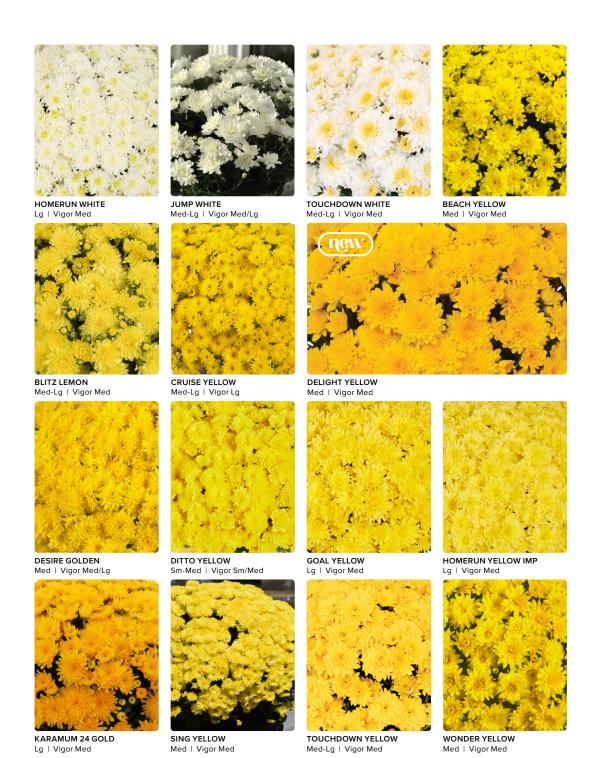
CEREMONY WHITE Med | Vigor Med



DITTO WHITE Sm-Med | Vigor Sm/Med



FAIR WHITE Med | Vigor Med



VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Seaside Red	34.0	35.0
Buzz Merlot	35.0	35.0
NEW Cheerful Red	35.0	35.0
Cheer Red	35.0	36.0
Chili Red	36.0	37.0
Cherry Red	37.0	38.0
Volley Red	37.0	37.0
Catch Red	38.0	39.0
Power Red	38.0	39.0
Jubilant Red	39.0	40.0
Fiesta Red	40.0	41.0
Calm White	34.0	35.0
Ditto White	36.0	37.0
Touchdown White	36.0	37.0
Homerun White	37.0	38.0
Jump White	37.0	38.0
Fair White	39.0	40.0
Ceremony White	40.0	41.0
Beach Yellow	34.0	35.0
Cruise Yellow	34.0	35.0
Wonder Yellow	35.0	36.0
NEW Delight Yellow	36.0	36.0
Desire Golden	36.0	37.0
Ditto Yellow	36.0	37.0
Touchdown Yellow	36.0	37.0
Goal Yellow	36.0	38.0
Karamum 24 Gold	36.0	36.0
Blitz Lemon	37.0	38.0
Homerun Yellow Imp	37.0	38.0
Sing Yellow	40.0	41.0

KEY TO PHOTO CAPTIONS Bloom Size: Sm-XL | Vigor Sm/Lg



BELGIAN

BRONZE / ORANGE



ADURO ORANGE Lg | Vigor 3



CONACO GOLD Big, Bicolor | Vigor 2



FONTI ORANGE



JASODA ORANGE Vigor 2



MIKA ORANGE Vigor 3



AMIKO BRONZE



CONACO ORANGE Big | Vigor 2



ARLUNO ORANGE Med | Vigor 3



CONELLA ORANGE Bicolor | Vigor 3



MAGNUS ORANGE Vigor 3



VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Mika Orange	36.0	37.5
Urano Orange	36.0	37.0
Urano Red	36.0	37.0
Fonti Orange	37.0	37.5
Arluno Orange	38.0	38.5
Conella Orange	38.0	39.0
Miora Orange	38.0	39.5
Padre Orange	38.0	39.0
Rhinos Orange	38.0	40.0
Conaco Gold	38.5	39.5
Conaco Orange	38.5	39.5
Peroni Orange	38.5	40.0
NEW Magnus Orange	39.0	39.5
Amiko Bronze	39.0	41.0
Veritas Orange	40.0	41.0
Jasoda Orange	41.0	42.0
Soul Sister Orange	41.0	42.0
Aduro Orange	41.5	42.0
Staviski Orange	41.5	42.0
Vigorelli Orange	41.5	42.5
Fonti Coral	37.0	37.5

KEY TO PHOTO CAPTIONS Bloom Description | Vigor 1-5



BELGIAN

PINK / PURPLE



ADIVA PURPLE Vigor 3



ARLUNO DARK PINK



BAOLI LILAC Lg | Vigor Med



FONTI PINK XL | Vigor 3-4









ARLUNO PURPLE Med | Vigor 3

ADURO PURPLE

Lg | Vigor 3



FONTI DARK PINK



JASODA PURPLE Vigor 2



JASODA PINK Vigor 2



VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Cipriani Pink	36.0	37.0
Pobo Lavender	36.5	38.0
Fonti Dark Pink	37.0	37.5
Fonti Pink	37.0	37.5
Adiva Purple	37.5	38.0
Baoli Lilac	38.0	38.0
Arluno Dark Pink	38.0	38.5
Arluno Pink	38.0	38.5
Arluno Purple	38.0	38.5
Koko Purple	38.0	39.5
Magnus Pink	38.0	39.0
Padre Lilac	38.0	39.0
Padre Cerise	38.0	39.0
Zaza Purple	38.0	39.5
Magnus Violet	38.5	40.0
Amiko Violet	39.0	41.0
Pomona Violet	39.5	40.5
Penera Pink	40.0	40.5
Penera Purple	40.0	40.5
Jasoda Pink	41.0	42.0
Jasoda Purple	41.0	42.0
Soul Sister Dark Pink	41.0	42.0
Soul Sister Pink	41.0	42.0
Aduro Purple	41.5	42.0
Staviski Pink	41.5	42.0
Vigorelli Purple	41.5	42.5

KEY TO PHOTO CAPTIONS Bloom Description | Vigor 1-5



BELGIAN

RED / WHITE





VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Fonti Red	35.5	37.0
Granata Red	36.5	38.0
Vega Red	36.5	38.0
Camina Red	37.0	38.0
Amadora Red	37.5	38.5
Arluno Red	38.0	38.5
Pobo Red	38.0	39.0
Koko Red	38.0	39.5
Savona Red	38.5	39.5
NEW Magnus Red	39.0	39.5
Como Red	39.0	40.0
NEW Braga Red	40.0	40.0
Penera Red	40.0	40.5
Lava Red	40.0	41.0
Jasoda Red	41.0	42.0
Soul Sister Red	41.0	42.0
Aduro Red	41.5	42.0
Staviski Red	41.5	42.0
Vigorelli Red	41.5	42.5
Prima White	36.5	38.0
Fonti White	37.0	37.5
Mabel White	37.0	37.5
Lesconil White	37.5	38.0
Arluno Vanilla	38.0	38.5
Padre White	38.0	39.0
Espero White	38.5	39.0
NEW Magnus Vanilla	39.0	39.5
Amiko White	39.0	41.0
Aluga White	39.5	41.5
Nazimi White	40.0	41.0
Jasoda White	41.0	42.0
Soul Sister White	41.0	42.0
Staviski White	41.5	42.0

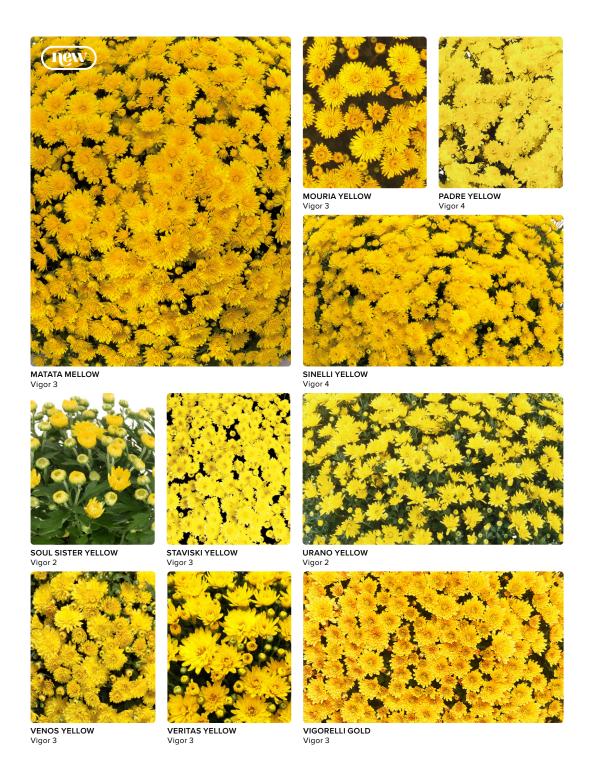
KEY TO PHOTO CAPTIONS Bloom Description | Vigor 1-5



BELGIAN

YELLOW





VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Allegra Yellow	36.0	37.0
Sinelli Yellow	36.0	37.5
Urano Yellow	36.5	37.5
Fonti Yellow	37.0	37.5
NEW Matata Yellow	37.0	38.0
Venos Yellow	37.0	38.5
Arluno Yellow	38.0	38.5
Conella Yellow	38.0	39.0
Padre Yellow	38.0	39.0
NEW Magnus Gold	39.0	39.5
NEW Magnus Yellow	39.0	39.5
Conaco Yellow	38.5	39.5
Espero Yellow	38.5	40.0
Amiko Yellow	39.0	41.0
Aluga Yellow	39.5	41.5
Veritas Yellow	40.0	41.0
Jasoda Yellow	41.0	42.0
Soul Sister Yellow	41.0	42.0
Staviski Yellow	41.5	42.0
Vigorelli Gold	41.5	42.0
Mouria Yellow	42.0	43.0

KEY TO PHOTO CAPTIONS Bloom Description | Vigor 1-5



SYNGENTA

BRONZE / ORANGE CORAL



AUBREY ORANGE Vigor Med



AUTUMN SUNSET Vigor Med/Lg



BEATRICE ORANGE Med | Vigor Med



BEVERLY BRONZE Vigor Med



BEVERLY DARK BRONZE Vigor Med/Lg



BEVERLY ORANGE Vigor Med/Lg



CHERYL SPICY ORANGE Vigor Med/Lg



DOROTHY BRONZE Med | Vigor Med



GIGI ORANGE Vigor Sm



HAILEY ORANGE Vigor Sm



HANNAH ORANGE Vigor Sm/Med



JACQUELINE ORANGE FUSION Bicolor | Vigor Sm/Med



JUDY BRONZE Med | Vigor Sm/Med



KEELEY ORANGE Vigor Sm



Lg | Vigor Med/Lg



MAKENNA ORANGE Vigor Med



MELANIE BRONZE BICOLOR Sm-Med | Vigor Sm/Med



STACY DAZZLING ORANGE Vigor Med



CHELSEY CORAL Vigor Med/Lg



MIRANDA ORANGE Vigor Med



PAMELA ORANGE Med | Vigor Lg



RHONDA BRONZE Vigor Med/Lg



TRACY ORANGE Med | Vigor Med



URSULA FANCY ORANGE Vigor Sm



WANDA BRONZE Vigor Med



GIGI CORAL Vigor Sm



JACQUELINE PEACH FUSION Bicolor | Vigor Sm/Med

VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Beatrice Orange	34.0	34.0
Keeley Orange	34.5	35.5
Hannah Orange	35.5	35.0
Ursula Fancy Orange	35.5	35.5
Gigi Orange	36.0	36.5
Jacqueline Orange Fusion	36.0	36.5
Dorothy Bronze	36.0	37.0
Miranda Orange	36.0	37.0
Stacy Dazzling Orange	36.0	37.5
NEW Melanie Bronze Bicolor	36.0	38.0
Beverly Bronze	36.5	37.5
Beverly Dark Bronze	36.5	37.5
Beverly Orange	36.5	37.5
Tracy Orange	36.5	36.5
Aubrey Orange	37.0	37.5
Hailey Orange	37.0	38.5
Lucy Bronze Bicolor	37.0	38.0
Wanda Bronze	37.0	38.0
Cheryl Spicy Orange	38.0	39.0
Autumn Sunset	39.0	40.0
Makenna Orange	39.0	39.0
Pamela Orange	39.0	41.0
Rhonda Bronze	41.0	42.0
Judy Bronze	41.5	42.5
Gigi Coral	36.0	36.5
Jacqueline Peach Fusion	36.0	36.5
Chelsey Coral	37.5	38.0

KEY TO PHOTO CAPTIONS Bloom Description | Vigor Sm-Lg



SYNGENTA

PINK / PURPLE



ADRIANA PURPLE Sm | Vigor Sm



CHERYL PINK Vigor Med/Lg



CHERYL REGAL PURPLE Vigor Med



GABBIE PURPLE Sm-Med | Vigor Sm/Med



ARLETTE PURPLE Vigor Sm







JACQUELINE PINK Vigor Med



CHELSEY PINK Vigor Med/Lg



DEMI PINK Med | Vigor Med



GIGI DARK PINK Vigor Sm



JACQUELINE ROSE Vigor Sm/Med



NIKKI DARK PINK Med-Lg



SUMMER SUNSET
Daisy/Med-Lg | Vigor Med



VALERIE FUCHSIA Med | Vigor Med



PAMELA PINK Med | Vigor Lg



PAULINE PURPLE Sm-Med | Vigor Med



TERESA PINK Daisy/Med-Lg | Vigor Med/Lg



WANDA LAVENDER Vigor Med



PATTY PURPLE Vigor Med



RHONDA PURPLE Vigor Med/Lg



URSULA LAVENDER Vigor Sm



WANDA PURPLE Vigor Med

VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
NEW Valerie Fuchsia	34.0	34.5
Arlette Purple	34.5	35.0
Jacqueline Rose	35.5	36.5
Patty Purple	35.5	36.5
Veronica Dark Pink	35.5	36.0
Demi Pink	36.0	36.0
Gigi Dark Pink	36.0	36.5
Jacqueline Pink	36.0	36.5
Ursula Lavender	36.0	36.0
Wanda Lavender	36.0	37.5
Danielle Purple	36.5	37.0
Chelsey Pink	37.0	37.5
Pauline Purple	37.0	38.0
Summer Sunset	37.0	37.5
Teresa Pink	37.0	37.5
Wanda Purple	37.0	38.0
Adriana Purple	38.0	39.0
Cheryl Regal Purple	38.0	39.0
Cheryl Pink	38.5	39.5
NEW Nikki Dark Pink	39.0	41.0
Pamela Pink	39.0	41.0
NEW Gabbie Purple	40.0	41.0
Elizabeth Dark Pink	40.5	41.0
Rhonda Purple	41.0	42.0

KEY TO PHOTO CAPTIONS Bloom Description | Vigor Sm-Lg



SYNGENTA

RED / WHITE



AIDEEN RED FIRE Vigor Sm/Med



ASHLEY RED Vigor Med



BONNIE RED Vigor Sm/Med



CHERYL JOLLY RED Vigor Lg



CYNTHIA SCARLET Med | Vigor Med



DANIELLE RED Vigor Med



EDANA RED Vigor Med



HAILEY RED BRONZE Med | Vigor Sm/Med



HESTIA HOT RED Vigor Med



JOSEPHINE RED Sm | Vigor Med



KATHLEEN DARK RED Vigor Sm



MILA RED Vigor Med



PATTY POMEGRANATE Vigor Med



RHONDA RED Vigor Med/Lg



RIHANNA RED Med | Vigor Med



SAMANTHA RED Med | Vigor Med



ANGELA WHITE Med | Vigor Med



EDITH WHITE Vigor Med



PAMELA WHITE Med | Vigor Lg



TABITHA SCARLET Vigor Med

BERTHA WHITE Vigor Med/Lg | 6.5 wks

GIGI SNOW Vigor Sm

RHONDA WHITE Vigor Med/Lg



Vigor Med



ALEXA WHITE Med | Vigor Med



CHELSEY WHITE Vigor Med/Lg



CHERYL FROSTY WHITE Vigor Med/Lg



JACQUELINE PEARL Vigor Sm/Med

SHANNON WHITE Vigor Med/Lg



NORAH WHITE Med-Lg | Vigor Med



WILMA WHITE Vigor Med

VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH		
NEW Samantha Red	34.0	34.5		
Hestia Hot Red	34.5	35.5		
Aideen Red Fire	35.0	35.0		
Bonnie Red	35.0	35.5		
Patty Pomegranate	35.5	36.5		
Tabitha Scarlet	35.5	37.0		
Mila Red	36.0	37.0		
Danielle Red	36.5	37.0		
Hailey Red Bronze	37.0	38.5		
Wanda Red	37.0	38.0		
Josephine Red	37.5	38.0		
Ashley Red	38.0	39.0		
Cheryl Jolly Red	38.0	39.0		
Cynthia Scarlet	39.0	40.0		
Edana Red	39.0	40.0		
Selena Red	39.0	39.5		
Kathleen Dark Red	40.0	40.5		
Rihanna Red	40.5	41.5		
Rhonda Red	41.0	42.0		
Norah White	34.0	35.0		
Bertha White	35.0	35.0		
Edith White	35.0	35.0		
Shannon White	35.0	35.0		
Jacqueline Pearl	35.5	36.5		
Gigi Snow	36.0	36.5		
Chelsey White	36.5	37.0		
Alexa White	37.0	38.0		
Wilma White	37.0	38.0		
Cheryl Frosty White	38.0	39.0		
Pamela White	39.0	41.0		
NEW Angela White	40.0	42.0		
Rhonda White	41.0	42.0		

KEY TO PHOTO CAPTIONS Bloom Description | Vigor Sm-Lg



SYNGENTA

YELLOW





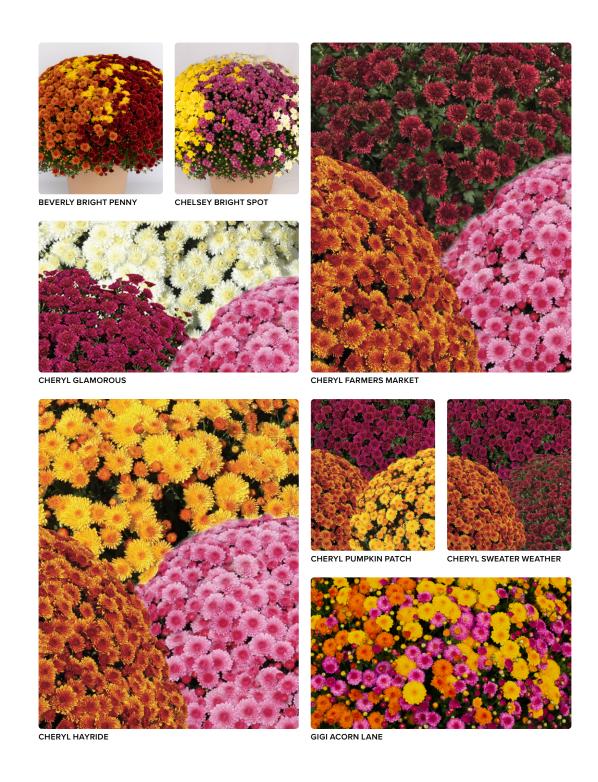
VARIETY	STAGE 1 NORTH	STAGE 1 SOUTH
Skylar Yellow	34.0	35.0
Michelle Gold	34.5	35.0
Tanya Yellow	34.5	34.5
Electra Amber Imp	35.0	35.5
Dawn Yellow	35.5	35.5
Elena Gold	35.5	35.5
Jacqueline Yellow	35.5	36.5
Ursula Sunny Yellow	35.5	36.0
Gigi Gold	36.0	36.5
Gigi Yellow	36.0	36.5
Yolanda Yellow	36.0	37.0
NEW Maria Yellow	36.0	38.0
Beverly Gold	36.5	37.5
Chelsey Yellow	36.5	37.0
Hailey Gold	37.0	38.5
Mary Yellow	37.0	37.5
Wilma Yellow	37.0	38.0
Zelda Yellow	38.0	38.0
Cheryl Golden	38.0	39.0
Cheryl Sparkling Yellow	38.0	38.5
Bethany Yellow	38.5	39.5
NEW Jennie Yellow	39.0	39.5
Nadia Yellow	39.0	40.0
Makayla Yellow	39.5	40.0
Ellen Golden Bicolor	40.0	41.0
Pamela Yellow	41.0	42.0
Jane Yellow	41.0	42.0
Rhonda Yellow	41.0	42.0

KEY TO PHOTO CAPTIONS
Bloom Description | Vigor Sm-Lg



COMBOS

SYNGENTA MUM COMBOS





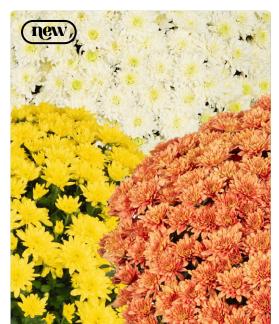




GIGI CAMPFIRE



HAILEY COLOR FIELD



HOMERUN CANDY CORN



JACQUELINE GAME DAY



JACQUELINE HARVEST FUSION



WANDA FALL BERRY

STAGE 1 NORTH	STAGE 1 SOUTH
34.0	36.0
34.0	36.0
34.0	36.0
36.0	37.0
36.0	37.0
36.0	37.0
36.0	37.0
36.0	37.5
37.0	38.0
37.0	39.0
37.0	39.5
39.0	39.5
39.0	39.5
39.0	39.5
39.0	39.5
39.0	39.5
	34.0 34.0 34.0 34.0 36.0 36.0 36.0 36.0 37.0 37.0 37.0 39.0 39.0 39.0

KEY TO PHOTO CAPTIONS Bloom Description | Vigor Sm-Lg

BLOOM TIME

BY COLOR

Based on northern conditions

AUG 2025

WK	S	M	T	W	T	F	S
31						1	2
32	3	4	5	6	7	8	9
33	10	11	12	13	14	15	16
34	17	18	19	20	21	22	23
35	24/31	25	26	27	28	29	30

SEP 2025

WK	S	M	Т	W	Т	F	S
36		1	2	3	4	5	6
37	7	8	9	10	11	12	13
38	14	15	16	17	18	19	20
39	21	22	23	24	25	26	27
40	28	29	30				

OCT 2025

WK	S	M	T	W	T	F	S
40				1	2	3	4
41	5	6	7	8	9	10	11
42	12	13	14	15	16	17	18
43	19	20	21	22	23	24	25
44	26	27	28	29	30	31	

KEY

- B | Belgian Mums
- D | Dümmen Mums
- $\mathbf{S} \ | \ \mathbf{Syngenta} \ \mathbf{Mums}$

Week number for stage 1

BRONZE/ORANGE

D	Solar Flare	33.0
S	Beatrice Orange	34.0
D	Reef Bronze	34.0
D	Sunblaze Flame	34.0
S	Keeley Orange	34.5
D		35.0
D	Flame Bicolor	35.0
D	NEW Flash Bronze	35.0
D	Lively Red Bicolor	35.0
D	NEW Solstice Bronze	35.0
S	Hannah Orange	35.5
S	Ursula Fancy Orange	35.5
D	Apple Cider	36.0
D	Balance Bronze Bicolor	36.0
D	NEW Ditto Bronze	36.0
D	Ditto Dark Orange	36.0
S	Dorothy Bronze	36.0
S	Gigi Orange	36.0
D	Goal Orange	36.0
S	Jacqueline Orange Fusion	36.0
D	Jolly Dark Bronze	36.0
D	Karamum 24 Bronze	36.0
S	NEW Melanie Bronze Bicolor	36.0
D	Merry Bronze Bicolor	36.0
В	Mika Orange	36.0
S	Miranda Orange	36.0
S	Stacy Dazzling Orange	36.0
D	Touchdown Orange	36.0
В	Urano Orange	36.0
В	Urano Red	36.0
S	Beverly Bronze	36.5
S	Beverly Dark Bronze	36.5
S	Beverly Orange	36.5
S	Tracy Orange	36.5
S	Aubrey Orange	37.0
В	Fonti Orange	37.0
S	Hailey Orange	37.0
D	Homerun Orange	37.0
D	Homerun Scarlet	37.0
D S	NEW Jolt Bronze	37.0
2	Lucy Bronze Bicolor	37.0

D	Tiger Eyes	37.0	D	Peppermint Passion Pink	35.0
S	Wanda Bronze	37.0	D		35.0
В	Arluno Orange	38.0	S	•	35.0
S	_	38.0	S	Jacqueline Rose	35.5
В	Conella Orange	38.0	S	Patty Purple	35.5
D	Jamboree Red Yellow	38.0	S	Veronica Dark Pink	35.5
В	Miora Orange	38.0	В	Cipriani Pink	36.0
В	Padre Orange	38.0	S	Demi Pink	36.0
В	Rhinos Orange	38.0	D	Ditto Dark Pink	36.0
В	Conaco Gold	38.5	S	Gigi Dark Pink	36.0
В	Conaco Orange	38.5	S	Jacqueline Pink	36.0
В	Peroni Orange	38.5	D	Lucky Purple	36.0
В	Amiko Bronze	39.0	D	Touchdown Bicolor Pink	36.0
S	Autumn Sunset	39.0	D	Touchdown Purple	36.0
В	NEW Magnus Orange	39.0	S	Ursula Lavender	36.0
S	Makenna Orange	39.0	S	Wanda Lavender	36.0
D	Melody Bronze	39.0	S	Danielle Purple	36.5
S	Pamela Orange	39.0	В	Pobo Lavender	36.5
D	Toast Orange	40.0	S	Chelsey Pink	37.0
В	Veritas Orange	40.0	D	Cherry Purple	37.0
D	Banquet Red Bicolor	41.0	В	Fonti Dark Pink	37.0
В	Jasoda Orange	41.0	В	Fonti Pink	37.0
S	Rhonda Bronze	41.0	D		37.0
В	Soul Sister Orange	41.0	S	Pauline Purple	37.0
В	Aduro Orange	41.5	S	Summer Sunset	37.0
S	Judy Bronze	41.5	S		37.0
В	Staviski Orange	41.5	S	Wanda Purple	37.0
В	Vigorelli Orange	41.5	В	Adiva Purple	37.5
CO	RAL		S	Adriana Purple	38.0
S	Gigi Coral	36.0	В		38.0
S	Jacqueline Peach Fusion	36.0	В		38.0
В	·	37.0	В	Arluno Purple	38.0
S	Chelsey Coral	37.5	В		38.0
	-	37.3	D	•	38.0
PII	NK/PURPLE		S	Cheryl Regal Purple	38.0
	Lagoon Purple	34.0	D	Jamboree Pink White	38.0
D	Shore Appleblossom	34.0	D		38.0
S	Arlette Purple	34.5	В	Koko Purple	38.0
D	Buzz Lavender	35.0	В	Magnus Pink	38.0
D	Ecstatic Purple	35.0	В	Padre Cerise	38.0
D	Elated Purple	35.0	В	Padre Lilac	38.0
D	Lively Pink Bicolor	35.0	В	Zaza Purple	38.0
			S	Cheryl Pink	38.5

В	Magnus Violet	38.5	B Amadora Red	37.5	D	Jump White	37.0	S	Yolanda Yellow	36.0
В			S Josephine Red	37.5	В	Mabel White	37.0	S	Beverly Gold	36.5
D			B Arluno Red	38.0	S	Wilma White	37.0	S	Chelsey Yellow	36.5
S	· ·		S Ashley Red	38.0	В	Lesconil White	37.5	В	Urano Yellow	36.5
S			D Catch Red	38.0	В	Arluno Vanilla	38.0	D	Blitz Lemon	37.0
В			S Cheryl Jolly Red	38.0	S	Cheryl Frosty White	38.0	В	Fonti Yellow	37.0
D			B Koko Red	38.0	В	Padre White	38.0	S	Hailey Gold	37.0
S	'		B Pobo Red	38.0	В	Espero White	38.5	D	Homerun Yellow	37.0
В			D Power Red	38.0	В	Amiko White	39.0	S	Mary Yellow	37.0
В			B Savona Red	38.5	D	Fair White	39.0	В	NEW Matata Yellow	37.0
S	Elizabeth Dark Pink		B Como Red	39.0	В	NEW Magnus Vanilla	39.0	В	Venos Yellow	37.0
D	Banquet Pink Bicolor		S Cynthia Scarlet	39.0	S	Pamela White	39.0	S	Wilma Yellow	37.0
D	Banquet Purple		S Edana Red	39.0	В	Aluga White	39.5	В	Arluno Yellow	38.0
В	Jasoda Pink		D Jubilant Red	39.0	S	NEW Angela White	40.0	S	Cheryl Golden	38.0
В	Jasoda Purple	41.0	B NEW Magnus Red	39.0	D	Ceremony White	40.0	S	Cheryl Sparkling Yellow	38.0
S	Rhonda Purple	41.0	S Selena Red	39.0	В	Nazimi White	40.0	В	Conella Yellow	38.0
В	Soul Sister Dark Pink	41.0	B NEW Braga Red	40.0	В	Jasoda White	41.0	В	Padre Yellow	38.0
В	Soul Sister Pink		D Fiesta Red	40.0	S	Rhonda White	41.0	S	Zelda Yellow	38.0
В	Aduro Purple		S Kathleen Dark Red	40.0	B	Soul Sister White	41.0	S	Bethany Yellow	38.5
В	Staviski Pink		B Lava Red	40.0	В	Staviski White	41.5	В	Conaco Yellow	38.5
B	Vigorelli Purple	41.5	B Penera Red	40.0	\ / =		11.0	В	Espero Yellow	38.5
D. F		11.5	S Rihanna Red	40.5	YE	LLOW		В	Amiko Yellow	39.0
RE	:D		B Jasoda Red	41.0	D	Beach Yellow	34.0	В	NEW Magnus Gold	39.0
D	Seaside Red	34.0	S Rhonda Red	41.0	D	Cruise Yellow	34.0	S	NEW Jennie Yellow	39.0
S	NEW Samantha Red	34.0	B Soul Sister Red	41.0	S	Skylar Yellow	34.0	В	NEW Magnus Yellow	39.0
S	Hestia Hot Red	34.5	B Aduro Red	41.5	S	Michelle Gold	34.5	S	Nadia Yellow	39.0
S	Aideen Red Fire	35.0	B Staviski Red	41.5	S	Tanya Yellow	34.5	В	Aluga Yellow	39.5
S	Bonnie Red	35.0	B Vigorelli Red	41.5	S	Electra Amber Imp	35.0	S	Makayla Yellow	39.5
D	Buzz Merlot	35.0		11.5	D	Wonder Yellow	35.0	5	Ellen Golden Bicolor	40.0
D	Cheer Red	35.0	WHITE		S	Dawn Yellow	35.5	D	Sing Yellow	40.0
D	NEW Cheerful Red	35.0	D Calm White	34.0	S	Elena Gold	35.5	В	Veritas Yellow	40.0
В	Fonti Red	35.5	S Norah White	34.0	S	Jacqueline Yellow	35.5	S	Pamela Yellow	41.0
S	Patty Pomegranate	35.5	S Bertha White	35.0	S	Ursula Sunny Yellow	35.5	5	Jane Yellow	41.0
S	Tabitha Scarlet	35.5	S Edith White	35.0	В	Allegra Yellow	36.0	В	Jasoda Yellow	41.0
D	Chili Red	36.0	S Shannon White	35.0	D	NEW Delight Yellow	36.0	ς	Rhonda Yellow	41.0
S	Mila Red	36.0	S Jacqueline Pearl	35.5	D	Desire Golden	36.0	R	Soul Sister Yellow	41.0
S	Danielle Red	36.5	D Ditto White	36.0	D	Ditto Yellow	36.0	В	Staviski Yellow	41.5
В	Granata Red	36.5	S Gigi Snow	36.0	S	Gigi Gold	36.0	В	Vigorelli Gold	41.5
В	Vega Red	36.5	D Touchdown White	36.0	S	Gigi Yellow	36.0	В	•	42.0
В	Camina Red	37.0	S Chelsey White	36.5	D	Goal Yellow	36.0		Would Tellow	72.0
D	Cherry Red	37.0	B Prima White	36.5	D	Karamum 24 Gold	36.0			
S	Hailey Red Bronze	37.0	S Alexa White	37.0	S	NEW Maria Yellow	36.0			
D	Volley Red	37.0	B Fonti White	37.0	В	Sinelli Yellow	36.0			
S	Wanda Red	37.0	D Homerun White	37.0	D	Touchdown Yellow	36.0			

CUTTURE

49 MUMS

51 ASTERS

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53 CROP SCHEDULE

54 OTHER FALL COLORS



MUMS

INFORMATION COURTESY OF BERNARD CHODYLA, TECHNICAL ADVISOR AT GEDIFLORA, WITH ADDITIONS FROM RON ADAMS AND STAFF MEMBERS OF JOLLY FARMER GROWING TEAM.

TRANSPLANTING

Transplant rooted cuttings as soon as possible after arrival. Any delay in planting or excessive drying will restrict vegetative growth after transplanting and may cause premature budding. Before you are ready to start planting, have your finished pots completely filled with media. Partially filled pots will wilt sooner and contribute to uneven plants. Make sure media is evenly moist throughout the entire pot, not just the top few inches. Never plant dry cuttings. Do not bury the crowns of rooted cuttings. Keep soil moist for the first several weeks after transplanting to promote the vegetative growth. You may need to sprinkle your plants hourly for the first few days after moving outside to prevent any leaf burn and excessive wilting. Garden mums require a high light intensity for good quality, ideally in full sun. Maintain at least 6000 foot candles in growing area. Shading will increase plant stretch and the need for plant growth regulators.

When transplanting multiple plants per pot, keep the cuttings closer to the center of the pot to help reduce individual plant separation at finish. In general, plant cuttings no more than four to five inches apart near the center of the pot. This allows the cuttings to grow together early in the crop and create a stronger plant base.

GROWING MEDIA

For mum production, the growing medium should retain adequate water after irrigation but also drain sufficiently to provide aeration during rainy weather. Many growers use peat based mixes commonly used for bedding plants and baskets. Some growers prefer heavier bark-based mixes. Of the two types of growing medium, bark based mixes are more porous and might require 20% more nitrogen with the feed program. In either case, be sure that the growing mix is well drained with 12-18% air-filled pore space. The pH range should be 5.8-6.2. If a very lightweight mix is used, large plants can be top heavy and prone to tipping over in windy conditions. If this is a problem, use a growing mix that contains a heavier component (like bark) to provide weight and stability to the pots.

FERTILIZATION

Feed after transplanting with 250-300 ppm fertilizer containing a high percentage of ammonium nitrogen such as constant 20-10-20 or 20-20-20, adding 100 ppmN ammonium nitrate to the 20-10-20. Start alternating with calcium based fertilizer such as 15-0-15 after about 3 weeks, repeating it every 3rd-4th feeding. You should maintain a soil solution pH at 5.7-6.0. After flower buds reach pea size, reduce feed to 200 ppmN once a week, using calcium and potassium based fertilizers only. You may have to reapply 20-10-20 during extended periods of rain.

For garden mums grown with slow-release fertilizer choose one of the newer types on the market that is less likely to release solely on soil temperature. You can use a 3-4 month release type at manufacturer's recommended rates for southern locations. Northern growers often get better results using a five to six months or eight to nine month longevity product. Slow release fertilizer at half rate could be used in combination with liquid feed. Use weekly soil test results to

monitor pH and EC of your crop and adjust the feed program accordingly.

SPACING

Spacing will vary from grower to grower, depending on finished pot size and your target sales market. For the best results we recommend that the foliage not touch. Proper spacing will prevent tall 'stovepipe' growth, yellow foliage, disease and unsaleable plants.

WATERING

Drip tubes or drip tape is recommended instead of hand watering or overhead irrigation. Drip irrigation helps to keep foliage dry and prevents the spread of bacterial leaf spot. During the first few weeks of growth, keep the plants evenly moist but not soaked. It is best to irrigate at sunrise or just before. Mums can tolerate some later afternoon wilt, but they should be watered thoroughly early the next morning. Avoid fluctuations between too wet or too dry. Try to water the plants on a regular basis in order to prevent excessive drying. On the other hand over-watering will only cause root disease and a poor finished plant. Avoid feeding wilted plants. Instead, use clear water until plants regain turgidity.

PINCHING

Many garden mum varieties can be treated as nopinch varieties if grown in a 6" or larger container. Smaller pots do not have sufficient time to develop and branch without a pinch. If a grower is more comfortable with doing a pinch, this is fine and can be done when planting the rooted cutting to save time and labor. When pinching, always do a "soft pinch" removing only ½" or less from the cutting tip. Pinching hard or pinching after July 15 may delay flowering.

PREMATURE BUDDING

Early budding can be caused by extreme conditions such as too dry or too cool. In the North, cool night temperatures in June could be a common cause of premature budding. Avoid moving plants outside too early. If premature budding occurs, feed plants 2-3 times with an ammonium-based fertilizer at 300 ppm N to bypass the buds with new vegetative growth.

HOT WEATHER ISSUES

If your geographical area is receiving prolonged hot weather, beware of high growing media temperatures especially in plants on black landscape cloth. Very hot weather over an extended period of time can cause the slow release fertilizer to release early, burn roots and weaken the plants. Once this happens, the soil remains saturated for longer periods of time when wet, and root diseases can set in. To avoid this, use lower rates of slow release products, and do more liquid feeding. Any root stress from high temperatures or pots sitting wet for prolonged periods can result in pythium, fusarium or phytopthora.

GROWTH REGULATORS

In most cases, if proper varieties are being used along with the correct schedule, no growth regulators are needed. Smaller finished products, such as market packs or 4", may benefit from the use of growth regulators. B-9 sprayed at 2500 to 5000 ppm will slow the growth and a Bonzi drench at 2-3 ppm will virtually stop all growth. The last PGR application should be no later than 4 weeks before first color. Excessive or late applications of growth regulators will delay flowering. Florel will significantly delay natural day flowering if applied after June 20th.

INSECTS

Potential insect problems include aphids, caterpillars, mites, thrips, leaf miners, and whiteflies. Always take the extra precaution of weekly scouting and prevention. The sooner the infestation is found, the fewer plants will be affected. Rotate insecticides and miticides to avoid resistance and control a wide range of pests and their development stages. The following spray program can be used for mite and thrips control, using chemicals available in the US. Other chemical names would be used in Canada.

Avid + Pylon tank mix Conserve + DuraGuard tank mix Citation + Mesurol tank mix Pedestal

The above combinations should be applied twice in a row and then should not be reapplied until at least two other insecticides with different modes of action are applied to avoid resistance build up. Other recommended pesticides include:

• For spider mite control: Floramite, Hexygon, Judo, Ovation, Sammite

For thrips control: Flagship, Orthene, Safari, Preclude

For leaf miners control: Azatin, Decathlon, Flagship, Safari

For whitefly control: Distance, Endeavor, Flagship, Marathon II, Preclude, Safari, Tristar When applying pesticides:

- Always experiment with any new chemical on a few plants before treating your entire crop.
- Always use label rates.

Make sure these products are available for use and labeled for mums in your state or province.

DISEASES

The most common disease problems on garden mums include: botrytis, pythium, rhizoctonia, fusarium and bacterial leaf spot. Thorough monitoring of your crop, implementing an IPM program and prevention are the best defense options against disease problems. It is very important to use drip irrigation, sterilize production areas, remove weeds and use healthy plant material. This will reduce the need for chemical control of disease problems. Inspect roots periodically to determine plant health. Chemical control could be very effective if quick diagnosis from the lab is performed and correct fungicides or bactericides are selected.

When applying pesticides:

- Always experiment with any new chemical on a few plants before treating your entire crop.
- Always use label rates.

Make sure these products are available for use and labeled for mums in your state or province.

For issues concerning chrysanthemum white rust control and prevention go to: www.aphis.usda.gov/plant_health/plant_pest_info.

Further information on premature budding and hot weather growing problems are available online.

ASTERS

INFORMATION COURTESY OF SYNGENTA FLOWERS.

Asters are the perfect companion for garden mums. Like garden mums, they can be used in summer and fall. They also have similar cultural requirements. There are a few differences from garden mum culture, which are highlighted below.

GROWING MEDIA & FERTILIZATION

The same soilless media and the same 300 – 400 ppm N constant liquid feed program from a complete fertilizer used for garden mums will work for asters (see Growing Media and Fertilization sections in Garden Mum Cultural Information). Maximum growth is attained when water and fertilizer are not limited, similar to garden mums. Asters are more sensitive to salts in the root zone. Be sure solution comes out of the pot at every irrigation. If you notice foliage tip burn, you may need to leach. Monitor the pot EC to prevent damage. Target should be approximately 75% of the garden mum target.

FLOWERING RESPONSE

Asters flower under short days, and tend to bud easier than garden mums. Asters flower faster than mums once short days begin. Most flower in five weeks, compared to seven for mums. Avoid blackout periods longer than 13 hours since some varieties can abort flower buds. Artificial short days should be used from March 15 – August 15. We recommend retailing asters earlier than mums, when color is just starting to show, for better consumer longevity. In natural-season programs, asters flower faster under hot and bright conditions. Asters grown in the South flower seven to 10 days faster than the same variety grown in the North.

PINCHING

Traditionally, fall aster crops have been pinched at least once. (Liners from Jolly Farmer have been pinched.) With the new, better-branching varieties, aster pinch requirements have been reduced. For our trials we now use multiple cuttings, but just one pinch for black cloth and one cutting with no pinch for natural season. For black cloth crops, the pinch should be given when roots are well developed. This is generally 10 – 14 days after planting a rooted cutting or 21 – 24 days after a direct stick. Pinch off the top to leave four to six leaves on the cuttings. Rooted cuttings naturally become taller during propagation than cuttings that are direct-stuck. The first pinch on rooted cuttings will be harder than for direct-stick unrooted cuttings. If you pinch more than once, allow enough growth for three to four leaves to remain after pinching.

Pinching can be done every two to three weeks. Be sure to pinch all shoots or there will be uneven growth and flowering. Pinching is not required on natural-season crops. Pinching natural season crops after mid-July is not recommended as the plants are too close to bud initiation.

SPACING

As with garden mums, proper spacing is critical. Asters are generally smaller in size than garden mums and therefore can be grown tighter.

CROP SCHEDULING

Plant on the same schedule as your mum crop. Flowering times vary as per information given in your catalog.

HEIGHT CONTROL

With today's free branching varieties, less growth regulator is needed to control height. B-Nine and Bonzi are used successfully and rates are similar to those for garden mums.

INSECT CONTROL

Whiteflies and thrips and occasional spider mites are the key insect pests. For additional information on pesticide use, refer to our Chrysanthemum Pest Control tip sheet at www. syngentaflowersinc.com.

DISEASE CONTROL

Asters are susceptible to some different diseases than garden mums, primarily powdery mildew and rust. Some varieties are more resistant to disease than others, but disease expression is also weather dependent and varies from year to year. These diseases generally do not spread to an adjacent garden mum crop. Good cultural practices that create an unsuitable environment for the disease reduces their incidence. For additional information on pesticide use, refer to our Chrysanthemum Pest Control tip sheet at www.syngentaflowersinc.com.

For outdoor aster production, we strongly recommend a preventative spray program with a myclobutanil chemical such as Eagle® or Hoist® to control powdery mildew and rust. Scout crops regularly and apply protective fungicides as needed. Try to limit the number of sprays applied as they can have a growth retardant effect. Before using any pesticides, be sure that they are registered for use in your state or province. See label for use rates and application methods. Always follow label directions. The label is the law.

Important: Always read and follow label instructions before buying or using Syngenta products. The instructions contain important conditions of sale, including limitations of warranty and remedy.

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CABBAGE & KALE

INFORMATION COURTESY OF SAKATA ORNAMENTALS.

Flowering Kale is targeted for production in 4-6" pots. The plants need to be of sufficient size before color initiation. Intense coloring begins when the night temperature drops below 50-55°F for 2-3 weeks.

MEDIA

Flowering Kale does best in a soil-based mix (20-30% field soil), but soil less media can also be used with proper management. Optimum pH is 5.5-6.2 with a low nutrient charge.

TRANSPLANTING

Transplant on time, plug plants will easily stretch.

TEMPERATURE

Production is mostly done outdoors.

FERTILIZER

Fertilize with 150 ppm N using a well-balanced calcium nitrate-based fertilizer. Optimum EC is 1.0-1.5 (1:2 slurry). Excess fertilizer will delay leaf coloring and too little fertilizer will cause the outer leaves to yellow and drop off.

LIGHTING

Flowering Kale grows well outdoors under full sun up to 107,000 lux.

GROWTH REGULATORS

Under warm temperatures, growth regulation is necessary to keep the plants compact. In cooler-weather, applying B-9 (Alar) at 2,500-5,000 ppm works well. In warmer weather, weekly sprays of Bonzi at 4-6 ppm provides good height control.

PESTS & DISEASES

Caterpillars, Cut Worms and Aphids are the major pests, Botrytis and Downy Mildew are the major diseases.

CROP SCHEDULE

FOR 4" POTS

Plan on 5-6 weeks from transplant to the start of color.

FOR 6" POTS

Plan on 6-7 weeks from transplant to the start of color.



CROP SCHEDULING

Aster Guidelines

SIZE	TRANSPLANT OUTSIDE	PER POT	SPACE	FLOREL SPRAY*	READY**	TOTAL CROP TIME
6" pot	Wk 24	1 plant	15" b/t pots	Once only before July 1	Wk 37-39	11-13 wks fr transplant
8" pot	Wk 22	1 plant	20" b/t pots	Wk 24 & Wk 26	Wk 37-39	13-15 wks fr transplant

^{*@ 500} ppm after transplant | ** depending on variety

Mum Guidelines

SIZE	TRANSPLANT OUTSIDE	PER POT	SPACE	FLOREL SPRAY*	READY**	TOTAL CROP TIME
6" pot	Wk 26	1 plant	14" b/t pots	Once only before July 1	Wk 37-39	11-13 wks fr transplant
8" pot	Wk 24	1 plant	19" b/t pots	Wk 24 & Wk 26	Wk 37-39	13-15 wks fr transplant
10" pot	Wk 24	3 plants	22" b/t pots	Wk 24 & Wk 26	Wk 37-39	13-15 wks fr transplant

^{*@ 500} ppm after transplant | ** depending on variety | Delay transplanting by 2 wks for plants needing to be ready by wks 40, 41 and 42 on all sizes. No Florel needed in such a case.

Cabbage & Kale Guidelines

SIZE	PER POT	PGR	TIMING BEFORE COOLING
4" pot	1 plant	May be required	5-6 weeks
6" pot	1 plant	May be required	6-7 weeks
12" pot	3 plant	May be required	6-7 weeks

OTHER FALL COLORS

REFER TO YOUR YOUNG PLANTS GROWER CATALOG FOR CULTURE.

Fall Colors

SPECIE	SIZE	PER POT	SPACE	PINCH	PGR	NOTES	TOTAL CROP TIME
Bracteantha	4" pot	1 plant	_	Carantar	 Pinch at planting for 6" or larger pots. Avoid deep planting of liners. 		4-6 weeks
	10" pot	4 plant	-	See notes		planting of liners.	11-15 weeks
Celosia	4" pot	1 plant	3-4/sq ft	at 6-8 leaves	Required see notes	Plant the liners deep so that the tip of the liner is one inch above soil level. When the liner roots are well established pinch the cuttings to leave 6 - 8 leaves. Use Cycocel to keep the plants toned; PGR will give a darker foliage. *After 4 weeks you can	4-6 weeks*
	6" pot	1 plant	1-2/sq ft	at 6-8 leaves	Required see notes		5-7 weeks*
	8" pot	2 plants	1/sq ft	at 6-8 leaves	Required	lower the temp and finish them cooler.	5-7 weeks*
						*Celosia Kelos Atomic varieties are about one week	
	12" pot	3 plants	1/sq ft	at 6-8 leaves	Required see notes	faster in comparison to Kelos Fire varieties.	5-7 weeks*
Coreopsis	Quart	1 plant	_	-	_	Plant previous fall for sizing up gallons.	6-7 weeks
	Gallon	1 plant	-	-	_		7-9 weeks
Dracaena	4-6" pot	1 plant	-	-	-	-	8-12 weeks
EasyLiners™	6" pot	1 plant	-	week 3	Required see notes	After last pinch use Bonzi spray at 10- 30 ppm or give a Bonzi soil drench at	9-12 weeks
	10-16" pot	pot 2 plant	_	weeks 3 & 6	Required	3 ppm for longer lasting control.	12-14 weeks
					see notes	Do not overwater. These are susceptible to root rot. Prevention treatment for Powdery Mildew may be necessary.	

SIZE	PER POT	SPACE	PINCH	PGR	NOTES	TOTAL CROP TIME
Gallon	1-2 plant	_	See notes	_	Pinch for more branching.	12-17 weeks
Quart	1 plant	-	-	_	-	8-12 weeks
Gallon	1 plant	-	_	_	-	8-14 weeks
6-8" pot	1 plant	-	at 6-7 leaves	Required see notes	Apply 2-3 ppm Bonzi® (paclobutrazol) drench 1-2 weeks after pinching; 2-3 ppm drench	7-8 weeks
10-12" pot	1-2 plant	-	at 6-7 leaves	Required see notes	when flowers start cracking color to hold	7-8 weeks
3" gal pot	2-3 plant	-	at 6-7 leaves	Required see notes	under high light and temperature conditions.	8-9 weeks
Gallon	1 plant	_	-	_	-	9-11 weeks
Quart	1 plant	-	-	_	This schedule is not for finished in	6 weeks
Gallon	1 plant	-	-	_	bloom. Do not bury crowns.	10-14 weeks
4" pot	1 plant	_	-	_	Color is brightest under high light.	4-6 weeks
Quart	1 plant	_	_	_	Not true perennials. Require good drainage.	7 weeks
Gallon	1 plant	-	_	_		8-10 weeks
Quart	1-2 plant	_	_	_	Needs time to bulk.	10 weeks
Gallon	1-2 plant	-	-	-		10 weeks
	Gallon Quart Gallon 6-8" pot 10-12" pot 3" gal pot Gallon Quart Gallon 4" pot Quart Gallon	Gallon 1-2 plant Quart 1 plant Gallon 1 plant 6-8" pot 1 plant 10-12" pot 1-2 plant 3" gal pot 2-3 plant Gallon 1 plant Quart 1 plant Gallon 1 plant 4" pot 1 plant Quart 1 plant Gallon 1 plant	Gallon 1-2 plant – Quart 1 plant – Gallon 1 plant – 6-8" pot 1 plant – 10-12" pot 1-2 plant – 3" gal pot 2-3 plant – Gallon 1 plant – Quart 1 plant – 4" pot 1 plant – Quart 1 plant –	Gallon 1-2 plant - See notes Quart 1 plant - - Gallon 1 plant - - 6-8" pot 1 plant - at 6-7 leaves 10-12" pot 1-2 plant - at 6-7 leaves 3" gal pot 2-3 plant - - - Gallon 1 plant - - - Quart 1 plant - - - 4" pot 1 plant - - - Quart 1 plant - - - Quart 1 plant - - - Quart 1-2 plant - - -	Gallon 1-2 plant - See notes - Quart 1 plant - - - Gallon 1 plant - - - 6-8" pot 1 plant - at 6-7 leaves Required see notes 10-12" pot 1-2 plant - at 6-7 leaves Required see notes 3" gal pot 2-3 plant - - - - Gallon 1 plant - - - - Quart 1 plant - - - - 4" pot 1 plant - - - - Quart 1 plant - - - -	Gallon 1-2 plant - See notes - Plinch for more branching. Quart 1 plant

Succulents

SPECIE	SIZE	PER POT	SPACE	PINCH	PGR	NOTES	TOTAL CROP TIME
Crassula	4-6" Pot	1 plant	-	_	-	Fast grower	6-8 weeks
Echeveria	4" Pot	1 plant	-	-	_	Fast grower	6-8 weeks
Kalanchoe	4-6" Pot	1 plant	-	-	_	Medium grower	10-14 weeks
Portulaca Succulents	4" Pot	3 plant	-	-	_	Slow Grower	16-20 weeks
Sedum Creeping	3-4" Pot	1 plant	-	-	-	Medium grower	10-14 weeks
Sempervivum	3-4" Pot	1 plant	_	-	_	Medium grower	10-14 weeks
Senecio	4" Pot	1 plant	-	_	-	Fast grower	6-8 weeks



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