NUMBER 1 FOR SEED



THINK GLOBALLY WITH PANAMERICAN SEED®

PanAmerican Seed is your global partner. We can support your market with the right products that will work for you, better customer service and tech support, the latest seed technology enhancements and controlled production to ensure your growing success.



CUSTOMER SERVICE

You'll receive personalized, quality care from our Customer Service Representatives. They take the time to get to know our customers so they can provide the right solutions to help your business succeed.



QUALITY BREEDING

Our breeders constantly fine-tune our products with on-trend colours, impactful performance upgrades, new seed technologies and product efficiencies, all with the goal of improving your profitability.



ENHANCED SEED TECHNOLOGY

The Premier Lab strives to provide the most superior seed by developing new seed forms, seed-testing protocols, seed quality ratings, plus superior seed coating and pelleting techniques to improve production efficiency for our growers.



CONTROLLED PRODUCTION

All of our seed production facilities are consistently monitored to maintain our seed quality. The seed is inspected all the way through our production process, being tested and retested, so we always have a full inventory of high-performance, high-quality seed available when and where you need it.



TECHNICAL SUPPORT

Our technical support team has the expertise to provide support for crop culture, clean environment protocols, plant physiology and pathology, chemical and biological control agents for pests and more, using the most comprehensive resources in the business.

SALES SUPPORT LOCATIONS:

Venhuizen, Netherlands Illinois, USA California, USA Hokuto City, Japan Chiang Mai, Thailand Jiangsu Province, China

BREEDING LOCATIONS:

Illinois, USA California, USA Cartago, Costa Rica Venhuizen, Netherlands Glamsbjerg, Denmark Chiang Mai, Thailand

PRODUCTION LOCATIONS:

Baja California, Mexico Yunnan Province, China Ciudad De Guatemala, Guatemala Cartago, Costa Rica Pichidegua, Chile Venhuizen, Netherlands





Front cover stars:

NEW Campana Deep Blue Improved Campanula NEW Orange Marmalade Bell Pepper Easy Wave® Red Spreading Petunia NEW Plug & Play® XXL Combo Golden Era Purple Prince Alternanthera

Back cover stars: NEW Kabloom™ Cherry Calibrachoa NEW Kabloom™ Orange Calibrachoa NEW Rockin'™ Purple Dianthus

WAVE / 2	
ANNUALS / 12	
PERENNIALS / 134	
POTTED PLANTS / 158	
CUT FLOWERS / 176	
HANDPICKED / 200	
PLUG & PLAY / 220	

NUMBER 1 FOR SEED

AWARD-WINNING DEBUTS THEN & NOW

Introduced in 1995 to industry-wide praise and earning an **All-America Selections award, Wave Purple Classic** (below and page 8) continues to be a leader in landscape performance.



For 25 years, PanAmerican Seed has invested in improving Wave petunias for growers and consumers alike, continually bringing new and exciting varieties to the market. This year, we introduce **NEW Wave Carmine Velour, an All-America Selections National Winner.** See page 8.





<u>uave</u>.

25 YEARS OF INNOVATION AND PROGRESS!

In 2020, Wave[®] petunia is celebrating 25 years of **proven performance** and **excellence in genetics.** The Authentic Trailing Petunia has been a favourite with consumers for 25 years, and with **new colours** in both the Wave and Easy Wave[®] series this year, it promises to continue to **set the standard higher** for spreading petunias around the globe.



ANNUALS / SHOCK WAVE



Plug & Play Combo Firecracker featuring Shock Wave Coral Crush, Deep Purple and Denim petunias, see page 230.

The best for baskets

You've never seen petunia hanging baskets like these each Shock Wave plant is blanketed with tons of colour from the amazing number of petite, high-impact flowers. Start your Wave® sales early with the early-to-flower spreading petunia series that bounces back from overhead watering and Spring showers.

SPREADING PETUNIA *O Petunia x hybrida*

Shock Wave® Series F1



Height: 7 to 10 in./18 to 25 cm **Spread:** 30 to 36 in./76 to 91 cm **Flower size:** 1.5 to 2 in./4 to 5 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 6 weeks Transplant to finish: Spring 5 to 6 weeks, Summer 4 to 5 weeks

• Blooms in a tight, consistent, 4 to 6-day window.

• Rebounds faster from overhead watering and rain than other petunias - stays fresher-looking at retail and outdoors.

• Performs equally well in small spaces, baskets, containers and mixed combos.

Mounded, spreading plants are similar in shape and just as easy to manage as Easy Wave® petunia.
Recommended in Wave branded

 Recommended in Wave branded packaging: 4-in./10-cm pots, premium quarts, 306 premium packs with handle, hanging baskets.

Coral Crush Retains colour well in high light.

Denim Flowers are dark bluepurple in cool/low light and greenhouse production; change to blue-lavender-silver in high light and hot conditions.

Spark Mixture Coconut, Denim, Pink Shades.

Volt Mixture Red, Coconut, Denim.

ANNUALS / SHOCK WAVE

Use Shock Wave petunias in awe-inspiring Fuseables® Combos like this!



Fuseables Ooh La La, see page 225.



Spark Mixture



Deep Purple



Volt Mixture



Coconut



Pink Vein



Pink Shades



Rose





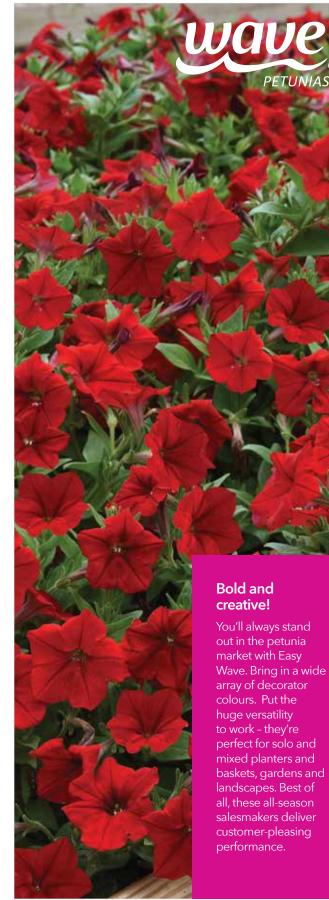


Red



Deep Purple

ANNUALS / EASY WAVE



Easy Wave Red

6

Grow great-looking Plug & Play® Combos like this with Easy Wave petunias!



Plug & Play Combo Mad About Red, see page 229.

SPREADING PETUNIA continued

Easy Wave® Series F1



Height: 6 to 12 in./15 to 30 cm Spread: 30 to 39 in./76 to 99 cm Flower size: 2 to 3 in./5 to 8 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 6 weeks **Transplant to finish:** Spring 6 to 7 weeks, Summer 4 to 5 weeks

Exceptional uniformity means simplified production, maximized plug yields and the ability to meet every ship date for every colour. Lets you grow specialty mixes, too!
More mounded with more controlled spread than Wave varieties.

 Recommended in Wave branded packaging: 6-in./15-cm pots, premium quarts and gallons,
 306 premium packs with handle, hanging baskets.

Blue Flowers have some light blue shading.

Burgundy Star Pattern is consistent with standard star petunias - some flowers may be more solid or more white.

New Lavender Sky Blue Shades of lavender to sky blue; colours will be darker under cooler and lower light conditions. Moderate plant vigour. 9.5 hours daylength required. Cold durable. **Pink Passion** 8 to 10 days earlier than Pink in Spring natural daylength conditions.

Plum Vein Slightly more upright than others in the series.

Red Flower size is slightly smaller, yet not as small as Easy Wave Yellow. Timing to first flower is similar; however Easy Wave Red is approximately 3 days faster to saleable stage.

Yellow Better branching with strong rooting compared to vegetative yellow varieties. Flower size is similar to Red.

Beachcomber Mixture Blue, Coral Reef, Shell Pink.

Formula Mixture Blue, White, Pink Passion, Neon Rose, Red, Violet, Silver.

Great Lakes Mixture Blue, Violet, White.

Opposites Attract Mixture Coral Reef, Violet.

Plum Pudding Mixture Plum Vein, Violet. Flowering window to 50% flower is 1 day.

South Beach Mixture Improved Coral Reef, Red, Violet. Window to first flower is 3 days.

Starfish Mixture Burgundy Star, White.

The Flag Mixture Red, White, Blue. Flowering window to 50% is 1 day.

ANNUALS / EASY WAVE



Starfish Mixture



The Flag Mixture



Opposites Attract Mixture Mixture





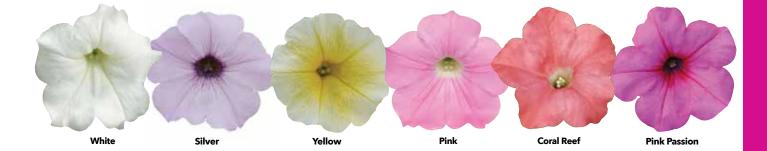
Great Lakes Mixture



Plum Pudding Mixture



Lavender Sky Blue

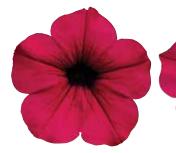








Wave Carmine Velour



Purple



NEW Carmine Velour All-America Selections National Winner



Pink



Lavender All-America Selections National Winner, Fleuroselect Gold Medal

Misty Lilac

Purple Classic All-America Selections Classic

SPREADING PETUNIA continued

Wave® Series F1



PETUNIAS

The Authentic

Wave has set the standard for

performance

Trailing Petunia

petunia landscape

and continues to

transform gardens

around the globe.

Pro landscapers and

home gardeners alike

choose low-growing,

every sunny setting:

gardens, baskets,

and more.

large colour bowls

wide-spreading Wave varieties for Height: 5 to 7 in./13 to 18 cm Spread: 36 to 48 in./91 to 122 cm Flower size: 2 to 2.5 in./5 to 6 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 6 weeks Transplant to finish: Spring 7 to 9 weeks, Summer 5 to 7 weeks

• Virtually care-free, the plants bloom like crazy all season, with masses of flowers along the entire length of each branch with no trimming back.

• Wave petunias stand up well to both heat and cooler conditions, and perform better than most petunias when Botrytis is present.

• Recommended in Wave branded packaging: 6-in./15-cm pots, premium gallons, hanging baskets.

New Carmine Velour Vivid, hot carmine-cherry colour on vigorous, flat, spreading plants. 13 hours daylength required. Cold durable. All-America Selections National Winner 2019.

Lavender Timing is similar to Misty Lilac.

Misty Lilac Flowers may show appealing white "splashes" when plants are grown in high light or growth regulators are applied. Grows taller than the other Wave colours.

Pink Timing is similar to Purple Classic.

Purple Begins to flower at 11 hours, and is 12 to 14 days earlier than Purple Classic.

Purple Classic Blooms about 1 week later than Lavender, Misty Lilac and Rose. All-America Selections Classic.

ANNUALS / TIDAL WAVE



Red Velour All-America Selections National Winner, Fleuroselect Gold Medal, , Fleuroselect Novelty US 7,642,436; EU PAF

Tidal Wave® Series F1



Height, spread and spacing: Growth habit is based on how closely plants are placed - the closer the spacing, the taller the plants.

• Spaced a minimum of 12 in./ 30 cm apart, Tidal Wave petunias form a dense, mounded hedge, 16 to 22 in./41 to 56 cm tall. • Grown in a restricted space with support, they grow an extra 2 to 3 ft./61 to 91 cm upward, like a vine. Spaced up to 24 in./61 cm apart in the garden, the plants make a floriferous groundcover, spreading up to 5 ft./1.5 m across per plant. Flower size: 2 to 2.5 in./5 to 6 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: Spring 6 to 8 weeks, Summer 4 to 7 weeks

• Tallest and most vigorous of the Wave petunia family, Tidal Wave plants super-size colour into big spaces.

• Excellent landscape performer with terrific recovery from rain. The plants resist lodging, so they won't fall open and expose a bare centre like other petunias can.

• Recommended in Wave branded packaging: 8-in./20-cm pots, hanging baskets.

Extend your season finisher - grown and marketed in 8-in./ baskets, Tidal Wave is the "go-to" for pros and home gardeners looking for fresh, fast colour. Hedge, vine or impressive groundcover - Tidal Wave does it all! These fast-fill plants spread out across big spaces, and they

Tidal Wave Silver and Red Velour

crawl along and over walls and fences.

Big, bold 3D colour!

with this strong

20-cm pots and



Silver All-America Selections National Winner, Fleuroselect Quality Mark



Purple

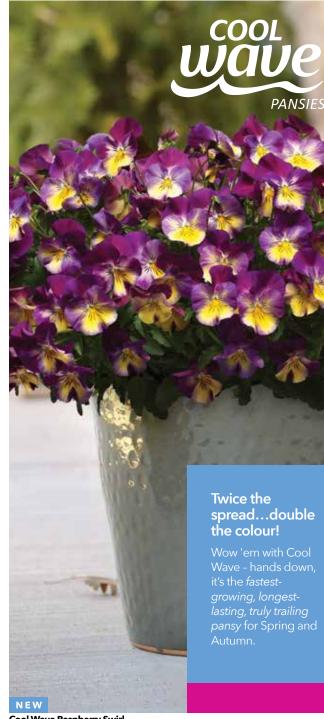




Red Velour All-America Selections National Winner, Fleuroselect Gold Medal US 7,642,436; EU PAF

Hot Pink

ANNUALS / COOL WAVE



Cool Wave Raspberry Swirl



Strawberry Swirl



Raspberry

SPREADING PANSY Viola x wittrockiana Cool Wave® Series F1



Height: 6 to 8 in./15 to 20 cm **Spread:** 24 to 30 in./61 to 76 cm **Flower size:** 2 to 2.5 in./5 to 6 cm

Seed supplied as: Primed

Plug crop time: 4 to 5 weeks Transplant to finish: Spring 6 to 7 weeks, Autumn 4 to 5 weeks

• The best-performing spreading pansy series delivers *easy spreading colour* for Spring and Autumn, so you can extend your growing and selling season for the popular Wave® Brand.

• More vigorous with the most prostrate habit of any spreading pansy - great in combos and as groundcover.

• Superior overwintering hardiness -Cool Wave is the earliest pansy to return in the Spring.

Blue Skies Cool nights/low PGRs deliver the deepest colour. High temperatures/PGR use show slightly lighter blue colour and broader yellow eye. Small number of blooms show dark purple cap. Matches Golden Yellow for habit and vigour.

Blueberry Swirl Cool nights/low PGRs deliver the deepest colour. High temperatures/PGR use show lighter colour and broader yellow eye. Fire Rich dark red with a yellow face brings "fire" to Cool Wave. Shows more red in the face during Winter/ Spring production (cool season) and more yellow in the face during Summer/Autumn production (warm season).

Morpho Cool nights/low PGRs deliver the deepest colour. High temperatures/PGR use shows lighter colour and broader yellow eye.

Raspberry Rich, velvety rosy-purple with white around flower centre. Shows more rose/purple in the bloom and less white in the face in Winter/Spring (cool season) production, and more white in the face in Summer/Autumn (warm season) production. Matches Golden Yellow for vigour.

New Raspberry Swirl Shows more rose cap in Winter/Spring (cool season) production.

New Strawberry Swirl Shows more pink cap in Winter/Spring (cool season) production, and more yellow in the flower face in Summer/Autumn (warm season) production.

Red Wing Also known as Sunshine 'N Wine in North America.

Berries 'N Cream Mixture Purple, Violet Wing, White.

Pastel Mixture Lemon, White, Frost, Yellow, Golden Yellow.

Maximize your growing success

Find all you need to grow fantastic Cool Wave pansies in the comprehensive Production Handbook. It's available in English and Spanish at **panamseed.com** or ask your preferred distributor for a copy.

ANNUALS / COOL WAVE

Cool Wave pansies make awesome cool-season combos like this!



Fuseables Sunny Skies, see page 223.



Berries 'N Cream Mixture



Pastel Mixture



Mixture













Blue Skies

Morpho



NEW Strawberry Swirl



NEW Raspberry Swirl



Purple



Raspberry



Fire



Red Wing / Sunshine 'N Wine



Blueberry Swirl



Frost



Violet Wing

NUMBER 1 FOR SEED

NEW BEACON™ ORANGE IMPATIENS

Bring Impatiens walleriana back into production without the risk of Impatiens downy mildew! See page 48.

ANNUALS

CLASSIC, NEW & BREAKTHROUGH

PanAmerican Seed is your "go-to" supplier for high-performance annuals, backed by **industry-leading seed quality** and **consistent, deliverable inventory**. While we've built our reputation on popular classes like marigolds, petunias and pansies, we offer the same **reliability** and **proven performance** from our new introductions, like **New** Beacon downy mildew resistant impatiens, Purple Prince alternanthera and **New** Glamour Improved euphorbia. We are proud to be leading the industry in breeding and supplying varieties that offer enhanced benefits for growers, retailers, landscapers and gardeners, bringing you the **best that seed can offer**.



ANNUALS / SERENA



Serena Series

Try Serena angelonia in delightful Plug & Play Combos like this!



Plug & Play Combo Seaside Delight, see page 235.



Purple



White

Your no-pinch, low-hassle angelonia

Serena and companion Serenita are the only seed angelonias on the market, giving you the premium results you expect from vegetative varieties, with less labour and more efficiency. Both fit into warm bedding production... are perfect for grower choice premium containers...and excel in landscapes, thanks to their high durability.





Mixture



Waterfall Mixture



Rose

ANGELONIA O Angelonia angustifolia Serena[®] Series F1



Height: 16 to 20 in./41 to 51 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 9 weeks

- Serena fills gardens, landscapes and mixed containers with unique dimensional colour.
- Care-free, continuous bloomer performs well under a wide range of conditions.
- Durable series is a perfect choice for consumers looking for waterwise, heat-loving plants.

 Plants grow up to 50% larger in Florida, Southeast Asia and similar southern climates.

Mississippi Medallion Award, Dallas Arboretum FlameProof Award, Louisiana Super Plants Award

New Rose A new colour segment for Serena! Dense spikes feature large florets with a deep rose bloom and a dark eye. Intense, deep colour is maintained in high light and high heat environments. Vigour and height fit the series well.

Waterfall Mixture Includes Purple plus a sky blue and white segregating mix (not available separately).



ANNUALS / SERENITA



Rose

Serenita® Series F1



Height: 12 to 14 in./30 to 36 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 9 weeks

• Serenita has all the good looks, durability and easy production of Serena - with a few additional benefits.

• Excellent solution where shorter and more manageable material is needed.

• Peak performer in very hot/humid night temps like Florida, southeast Asia and similar southern climates.

• Great for high-density production.

• Grow Serenita with less to no PGRs for cost savings.

New Rose Deep to mid-rose shades are darker than Pink. Plant height and vigour are a good match for the series.

Sky Blue Colour holds well in high heat/light. Lighter than Serena Blue and distinctive from Serenita Purple. Timing like Raspberry.



Purple

Sky Blue

Raspberry



Lavender Pink



White



Serena Purple

Serenita Purple

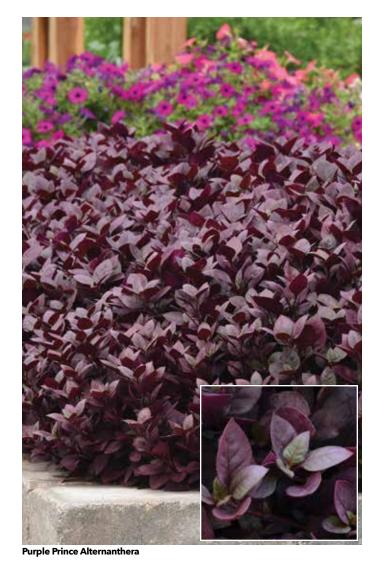
Mixture



Serenita Pink All-America Selections National Winner



ANNUALS / PURPLE PRINCE







Bella Select Mixture Abutilon



High Tide Blue & High Tide White Ageratum

ALTERNANTHERA 😐 🕒 Alternanthera brasiliana

Purple Prince



Height: 10 to 16 in./25 to 41 cm Spread: 18 to 20 in./46 to 51 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 7 to 8 weeks

- First compact seed alternanthera is an easy-to-grow alternative to vegetative varieties.
- Durable carpet of ruby/burgundy foliage is ready to take on any Summer condition, including drought and rain. Imagine this unique colour accent in large cityscapes and as a "spiller" in highimpact containers!

• Great in low-maintenance landscapes for professionals and home gardeners alike.

• May flower under very short days; light plants at that time of year to prevent bud formation.

ALTERNANTHERA • Alternanthera dentata

Purple Knight



Height: 18 to 36 in./46 to 91 cm Spread: 24 to 36 in./61 to 91 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 6 to 7 weeks

- Economical, easy-to-produce plant is an ideal accent for mixed containers and excellent in the landscape as a vigorous bedding plant.
- Also well-suited to indoor plant programs.
- Very heat tolerant thrives even in subtropical Summer conditions.
- Foliage colour is darkest in full sun.
- Height varies by location; taller in warmer conditions.

Mississippi Medallion Award

ABUTILON \bigcirc \bigcirc \bigcirc Abutilon x hybridum

Bella[™] Select Mixture

Height: 14 to 18 in./36 to 46 cm **Spread:** 14 to 18 in./36 to 46 cm

Seed supplied as: Raw

Plug crop time: 3 to 5 weeks Transplant to finish: Spring 6 to 8 weeks, Autumn 8 to 10 weeks

• Compact variety for outdoor containers; also good in indoor plant programs.

• True dwarf variety germinates easily and needs little or no growth regulators.

Well-branched plants bloom continuously, even in high heat.
Large, 3-in./8-cm, bell-shaped blooms "look up" for a good show of colour; under cooler conditions, colours intensify.

16

AGERATUM O Ageratum houstonianum

High Tide™ Series F1

Height: 14 to 16 in./36 to 41 cm Spread: 12 in./30 cm

Seed supplied as: Pelleted

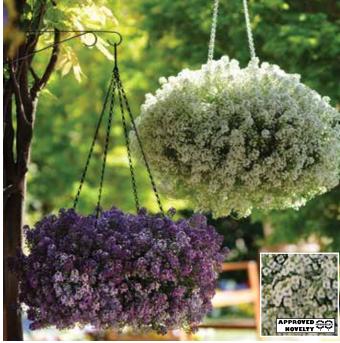
Plug crop time: 4 weeks Transplant to finish: 7 to 9 weeks

• Dense, mounded hedge of colour is taller and more vigorous than other landscape ageratums.

Outlasts standard bedding types in gardens and mixed containers.
Strong branching fills out packs

- and pots quickly.Self-cleaning and easy-care.
- Also well-suited to indoor plant programs.

ANNUALS / CLEAR CRYSTAL



Clear Crystal White Fleuroselect Novelty US 7,915,504 and Clear Crystal Lavender Shades US 7,915,504

Clear Crystal alyssum adds cool colours to Fuseables **Combos like this!**



Fuseables Wine Cooler, see page 223.

ALYSSUM 😐 Lobularia maritima

Clear Crystal® Series

Height: 6 to 10 in./15 to 25 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Coated, Multi-Seed Pellets

Plug crop time: 4 weeks Transplant to finish: 4 to 6 weeks

• Tetraploid alyssums deliver more vigour than standard diploids for reduced loss and increased profits. • Few PGRs are needed in most markets - cool-season crop can be grown with little or no heat for Spring pack programs. More vigorous with larger flowers than Easter Bonnet. • Fragrant, large blooms and stronger performance in containers, hanging baskets and in-ground plantings. • Well-matched series includes the first pigmented tetraploid alyssums.

Easter Bonnet Series

Height: 4 to 10 in./10 to 25 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Coated Plug crop time: 4 to 5 weeks Transplant to finish: 5 weeks

 Offering a full colour range, Easter Bonnet combines uniformity of habit and colour with unsurpassed earliness. • Covered with dainty, fragrant flowers, plants stay compact and tidy much longer than other alyssums, making these excellent edging plants.





Easter Bonnet **Deep Pink**



Clear Crystal Mixture US 7,915,504

Snow Crystals

Height: 6 to 10 in./15 to 25 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: 4 to 6 weeks

 Large, pure white, scented flowers have outstanding sales appeal.

 Tetraploid genetics of Snow Crystals add heat tolerance and vigour.



Easter Bonnet

Easter Bonnet

Lemonade

Easter Bonnet

Easter Bonnet

Purple Shades

US 7,915,504

Deep Rose

Lavender

RHS Award of Garden Merit



Easter Bonnet Peach



Easter Bonnet Mixture



Snow Crystals ct Gold Meda

ANEMANTHELE See ColorGrass, page 42.

ANEMONE See Cut Flowers, page 178.

ANGELONIA See page 14.

Clear Crystal

US 7,915,504

Lavender Shades

ANTIRRHINUM See Snapdragon.

AQUILEGIA See Perennials, page 136.

ARABIS See Perennials, page 138.

ARMERIA See Perennials, page 138.

ASCLEPIAS See Cut Flowers, page 178.





ANNUALS

ANNUALS / PINKTOPIA



Pot 'N Patio Series Mixture Aster



Pinktopia Bacopa



Blutopia Bacopa

Use Blutopia bacopa in stunning Fuseables Combos like this!

Snowtopia

Bacopa



Fuseables Healing Waters, see page 225.

18



Pot 'N Patio Series

Pink Aster

Pot 'N Patio Series Scarlet Aster



Pot 'N Patio Series Pot 'N Patio Series Blue Aster

Callistephus chinesis

White Aster

ASTER 🦲

Pot 'N Patio Series

Height: 6 in./15 cm Spread: 6 in./15 cm Seed supplied as: Raw

Plug crop time: 4 to 5 weeks

Transplant to finish: 8 weeks

• Dwarf plants flower just 90 days from sowing during the short days of Winter and early Spring without additional lighting.

• Performs well in patio pots, colour bowls and mixed containers, producing 2.5 to 3-in./5 to 8-cm, double blooms.

 Not recommended for landscape plantings.



Gryphon Begonia

F1 BACOPA Sutera cordata

Blutopia[®], Snowtopia[®] and New Pinktopia

Height: 6 in./15 cm **Spread:** 18 to 24 in./46 to 61 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 3 to 4 weeks Transplant to finish: 4 to 6 weeks

• First-ever bacopas from seed let you fully mechanize production, with easy crop scheduling and quick turns with no pinch. • Economical for accent plant

programs. • Perform well in large planters and

mixed containers.

Blutopia Lavender-blue flowers like traditional blue bacopas. Slightly smaller leaves than Snowtopia, typical of vegetative blue bacopas. Mounded habit.

New Pinktopia A new bright pink colour joins the only seed collection of F1 Hybrid Bacopa. The leaf size is the same as Snowtopia, but the leaf colour is more bright green than both Blutopia and Šnowtopia.

Snowtopia White flowers like traditional white bacopas. Larger leaves than Blutopia, similar to vegetative white bacopas. Slightly prostrate.

FOLIAGE BEGONIA 🌘 🗨 Begonia x hybrida

Gryphon

Height: 14 to 16 in./36 to 41 cm in shade, 12 to 14 in./30 to 36 cm in partial sun; may grow to 30 in./ 76 cm tall in hot/humid conditions Spread: 16 to 18 in./41 to 46 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 8 to 9 weeks Transplant to finish: 5 to 6 weeks

• Easy-care, low-water plant blends beauty with durability to make dramatic mixed or solo containers. • Fits into existing begonia plug culture; easier and quicker to produce than vegetative foliage types.

 More tolerant of stress than Rex begonias for less shrink.

• Retailers appreciate the longer sales window and versatility for outdoor container and indoor potted plant sales.

 Lets consumers extend their enjoyment by bringing plants indoors at the end of the season.





Dragon Wing Pink

BEGONIA 🌗 Begonia x hybrida

BabyWing® Series F1



Height: 12 to 15 in./30 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 5 to 7 weeks

• BabyWing is not daylength sensitive, so it is the first interspecific begonia to market. Upright, mounded, controlled plants stand up to shipping. • Easy, season-long performance

in landscapes and containers. • Heat tolerant and handles stressful conditions well.

Bicolor Novel colour pattern with a hint of "orange glow." Slightly smaller flowers than others in the series, but very floriferous for the same overall flower power.

Red Green leaves can show red picotee edge when young.

White May show a slight pink blush in full sun. Well-matched to Pink.

Dragon Wing® Series F1

PRO LANDSCAPE

Height: 12 to 15 in./30 to 38 cm Spread: 15 to 18 in./38 to 46 cm

Seed supplied as: Pelleted Plug crop time: 7 to 8 weeks

Transplant to finish: 7 to 9 weeks

• Grows lush and vigorous in southern U.S. heat and under cool, stressful conditions of northern Europe and Canada.

• Unique and beautiful arching, pendulous habit is spectacular in hanging baskets, large containers and commercial landscaping plantings.

• Angel-wing leaves and large blooms give Dragon Wing a dramatically different look. · Easy to grow from pelleted seed, it surpasses vegetative varieties

for branching, vigour and "flower power." • Features best-in-class

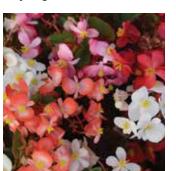
"bulletproof" performance, fast fill-in and an easy-care nature. Georgia Gold Medal Winners



Dragon Wing Red



BabyWing Pink



BabyWing Mixture



BabyWing White Bronze Leaf



BabyWing Red



BabyWing Pink



BabyWing White Bronze Leaf

BabyWing Bicolor

ANNUALS / MEGAWATT



Megawatt Rose Bronze Leaf



Rose Green Leaf



Red Green Leaf

20



Megawatt is retail-ready in 6-in./15-cm pots and larger.

MEGAsize + MEGAcolour = MEGAsales!

This fresh, highenergy begonia option has quickly proven itself in the marketplace with great timing benefits, one-of-a-kind varieties, ultimate garden power and more. These biggerthan-life hybrids let you offer the earliest colour to early-bird gardeners.

Look to PanAmerican Seed for your complete interspecific program, starting with fastest-to-market **BabyWing** for dayneutral growing... **Megawatt** for big Spring sales...and main-season **Dragon Wing** to round out the season.

BEGONIA • • • Begonia interspecific

Megawatt[™] Series F1



Height: 20 to 28 in./51 to 71 cm **Spread:** 16 to 24 in./41 to 61 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 7 to 9 weeks

• Striking, non-stop flowers keep plants covered in huge colour from Spring through Autumn...even in heat and drought.

• Sturdy flower stems hold flowers above the foliage for superior show versus others.

• Shows well at retail and perfect for landscapes, baskets, big tubs and borders.

ANNUALS / MEGAWATT



Rose Bronze Leaf



Pink Green Leaf



Pink Bronze Leaf



Rose Green Leaf



Red Green Leaf



Red Bronze Leaf



Pink Bronze Leaf

ANNUALS / AMERIHYBRID PICOTEE



Calypso



Lace Red



NEW

Flamenco



AmeriHybrid Picotee Sunburst

22



Lace Apricot



Sunburst

Big, bold begonias

Five new tuberous begonia series debut from PanAmerican Seed, providing a wide selection of colours, including unique bicolours, along with some of the world's largest blooms! This exciting collection can be sold at a premium price point at retail, and it results in faster turnover in the market.



Lace Pink



White Pink

TUBEROUS BEGONIA • • Begonia x tuberosa

AmeriHybrid[®] Picotee Series F₁

Height: 14 to 20 in./36 to 51 cm **Spread:** 10 to 12 in./25 to 30 cm **Flower size:** 4 to 8 in./10 to 20 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 11 to 15 weeks

- The AmeriHybrid Picotee varieties have large, 4 to 8-in./10 to 20-cm, bicolour blooms.
- The Picotee Lace types are an inverted variety of a normal picotee; these blooms have light edges on dark-coloured petals.

New Calypso White with a salmon-coral edge.

New Flamenco White with a thick red edge and speckles.

New Lace Apricot Apricot blooms with a white edge.

New Lace Pink Pink blooms with a white edge.

New Lace Red Red blooms with a white edge.

New Sunburst Yellow and orange/ peach/apricot blooms with a red edge.

New White Pink White with a pink edge.

New White Red White with a red edge.

ANNUALS / AMERIHYBRID ROSEFORM



Peach



Salmon

AmeriHybrid[®] Roseform Series F1

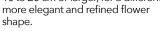
Height: 14 to 20 in./36 to 51 cm **Spread:** 10 to 12 in./25 to 30 cm **Flower size:** 4 to 8 in./10 to 20 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 11 to 15 weeks

• AmeriHybrid Roseform begonias display smooth-petalled,

symmetrical blooms. Flowers measure 4 to 8 in./
10 to 20 cm or larger, for a different,







Scarlet Orange





White





Yellow



AmeriHybrid Roseform Series

ANNUALS

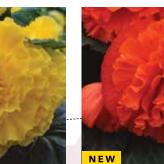
ANNUALS / AMERIHYBRID RUFFLED



Apricot



Yellow



NEW

Coral Salmon

Mandarin Orange



Pink





World's largest blooms - up to 9 in./23 cm!

- Flower size: 5-9 in./13-23 cm





Scarlet Red



AmeriHybrid Ruffled Series

TUBEROUS BEGONIA continued

AmeriHybrid[®] Ruffled Series F₁

Height: 14 to 20 in./36 to 51 cm **Spread:** 10 to 12 in./25 to 30 cm **Flower size:** 5 to 9 in./13 to 23 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 11 to 15 weeks

• At 5 to 9 in./13 to 23 cm each, AmeriHybrid Ruffled begonias boast the largest blooms in the world! That's the result of over 100 years of patient breeding and bybridizing.Each flower has a highly

consistent double shape.

ANNUALS / SUN DANCER



On Top Fandango



On Top Melon Lace



On Top Pink Halo

On Top® Series F1

Height: 10 to 12 in./25 to 30 cm **Spread:** 10 to 12 in./25 to 30 cm **Flower size:** 2 to 5 in./5 to 13 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 8 to 13 weeks

• Offering a collection of novelty colours, the On Top varieties tolerate more heat and sunlight than other begonias.

Mounded plants show off many 2 to 5-in./5 to 13-cm flowers.
On Top begonias bloom early and flower longer than other varieties.

New Fandango White with a salmon-coral edge.

New Melon Lace Melon with a white edge.

New Pink Halo White with a deep pink edge.

New Sun Glow Golden yellow with a red edge.

New Sunset Shades Yellow with a red edge.



On Top Sun Glow



On Top Sunset Shades

Sun Dancer[™] Series F₁

Height: 10 to 12 in./25 to 30 cm Spread: 12 to 16 in./30 to 41 cm Flower size: 3 to 6 in./8 to 15 cm

Seed supplied as: Pelleted

Plug crop time: 7 to 8 weeks Transplant to finish: 9 to 13 weeks

- Double-flowered plants produce more blooms that are larger than other varieties, with a bloom size of 2 to 5 in./5 to 13 cm.
- Because of its excellent

branching habit, Sun Dancer fills a hanging basket quickly and cascades up to 16 in./41 cm.

New White Pink Picotee White with a pink edge.

New Yellow Red Picotee Yellow with a red edge.

New Scarlet Orange and New Salmon are more vigorous and have longer flower stems compared to the rest of the series.



Sun Dancer Apricot



Sun Dancer Pink



Sun Dancer White



Sun Dancer Red



Sun Dancer Salmon



Sun Dancer Scarlet Orange



Sun Dancer White Pink Picotee



Sun Dancer Yellow



Sun Dancer Yellow Red Picotee

ANNUALS / CRAVE





CALIBRACHOA O Calibrachoa x hybrida

Crave Strawberry Star F1

Height: 10 to 14 in./25 to 36 cm Spread: 12 to 16 in./30 to 41 cm

New! Now available as Precision[™] Multi-Pellets.

Plug crop time: 5 to 8 weeks Transplant to finish: 7 to 11 weeks

• The first star pattern in seed calibrachoa! Flower colour may shade slightly. Under warmer night conditions, the strawberry colour may become lighter, while maintaining a consistent star pattern.

- Plants have good vigour, with a uniformly branched and controlled habit.
- Seed form makes it easy to order and ready to ship, fits right into
- mechanized production and assures easy inventory management.
- Grows more vigorously than the Kabloom varieties.
- Requires 12-hour daylength for best flowering.

CAMPANULA See Cut Flowers, page 179.

CAPSICUM

See Potted Plants, page 162. CAREX

See **ColorGrass**, pages 42 and 45.

CARTHAMUS See Cut Flowers, page 178. CATHARANTHUS

See Vinca.





Kabloom Cherry



Kabloom Blue



Kabloom Light Pink Blast



Kabloom White Improved



Kabloom Coral



Kabloom Yellow



Kabloom Denim



Kabloom Orange



Precision Multi-Pellet structure close up.

ANNUALS / KABLOOM

Create colourful Fuseables Combos like this with Kabloom calibrachoa!



Fuseables Paradise Island, see page 226.

Kabloom[™] Series F1

Height: 8 to 12 in./20 to 30 cm Spread: 10 to 14 in./25 to 36 cm

New! All of our calibrachoa are now supplied as Precision[™] Multi-Pellets. This upgraded seed form offers reliable plug production, with uniform quality in plug trays and improved order fill rate, all leading to a great-performing product!

Plug crop time: 5 to 8 weeks Transplant to finish: 7 to 11 weeks

• We've expanded the first-of-itskind Kabloom series to include 6 new colours and 1 improved variety, plus they are now offered in our convenient Precision Multi-Pellets.

• The ideal input for grower choice premium quarts. Also wellsuited to 4 to 6-in./10 to 15-cm pots, hanging baskets and mixed combos.

 Seed form makes it easy to order and ready to ship, fits right into mechanized production and assures easy inventory management.

• Bushy, trailing plants show off abundant, bright blooms in core solid colours.

New Blue Clear, mid-blue with a small yellow throat. Darker blue than Denim. Moderate plant vigour. Replaces Deep Blue. 10.5 hours daylength required.

New Cherry Warm cherry-rose with a small rose ring and a small yellow throat. Colour may become slightly lighter in high light and warm night conditions. Moderate plant vigour. 11 hours daylength required.



Kabloom Orange

New Coral Warm coral-salmon with a small yellow throat. Colour can shade to slightly lighter in warmer and higher light conditions. Moderate plant vigour. 11 hours daylength required.

Denim Flat, mounded plants produce flowers with darker blue tones under lower light and cooler conditions. The blooms age to silver-blue under higher light and warmer conditions. 11 hours daylength required. The most prostrate in the series, with a height of 6 to 10 in./15 to 25 cm.

New Light Pink Blast Light pink with a rose-red ring at the base of the petal and a small yellow throat. Moderate and slightly variable plant vigour. Slight shading from light pink to soft coral pink. 11.5 hours daylength required.

New Orange Clear, bright orange with a darker orange ring at the base of the petal and a small yellow throat. Moderate plant vigour. 10.5 hours daylength required.

New Pink Vibrant, clear pink with a rose ring and a medium-sized yellow throat. Moderate vigour with a more upright and mounded plant structure. Replaces Deep Pink. 11 hours daylength required.

New White Improved Clear, bright white with a small yellow throat. Moderate plant vigour better matches the series. Replaces White. 10.5 hours daylength required.

Yellow More upright plant structure 10 hours daylength required.



At 5 weeks, NEW Kabloom Precision Multi-Pellets produce a fuller plug tray.



Light Pink Blast

Ease and efficiency, at your fingertips!

Kabloom, the first seed calibrachoa, lets you schedule based on your needs, not on cutting availability dates. You can still receive product when the weather holds up vegetative shipments. Best of all...grown side by side with vegetative varieties, it's impossible to tell the difference.

ANNUALS / FIRST FLAME



First Flame Purple



First Flame Scarlet

First Flame Yellow

CELOSIA 😑

Spread: 8 to 12 in./20 to 30 cm

Plug crop time: 3 to 4 weeks

• First-of-its-kind novelty celosia shows one big flower atop the plant.

• In the greenhouse, flower is red and foliage is green with some red. Outdoors, foliage is darker and more purple-toned and flower is darker purple.

• Unusual shape and eye-catching colour add drama to landscapes, gardens and containers.

 Good mid-height border plant. NOTE: Shorter growth in high light.



Ice Cream Yellow Improved



Ice Cream Orange

PanAmerican Seed offers you two distinctive types of C. plumosa our shorter Ice Cream series and mid-height First Flame series - to create a winning lineup that meets your bedding and landscape celosia needs.

CELOSIA 😑 Celosia plumosa

First Flame[™] Series



Height: 10 to 14 in./25 to 36 cm Spread: 10 to 16 in./25 to 41 cm

Seed supplied as: Coated

Plug crop time: 3 to 4 weeks Transplant to finish: 8 to 10 weeks

• Excellent, brightly coloured Summer crop finishes 10 to 14 days earlier than competing varieties to reduce production costs.

• Branches like a regular C. plumosa to produce full blooms. • Uniform across all colours for a

fuller look in containers. Ideal for Asian and southern

markets.

 Makes great border plants; also good in containers.

Purple Unique colour to this type of celosia. About 1 week earlier to flower, with a thicker plume compared to First Flame Red, Yellow and Scarlet. Non-fading in high light/high heat.

Mixture Red, Yellow, Scarlet.



Ice Cream Salmon



Ice Cream Cherry



Ice Cream Mixture Improved

Ice Cream Series

Height: 12 in./30 cm Spread: 10 in./25 cm

Seed supplied as: Coated

Plug crop time: 3 to 4 weeks Transplant to finish: Packs, 8 to 10 weeks; 4 to 5-in./10 to 13-cm pots, 9 to 12 weeks

• Heat-tolerant, long-lasting series stands tough when temperatures rise - Ice Cream won't melt in the sun!

· Early, compact and wellbranched plants are stunning in patio planters and gardens.

• Produces large, tight flower heads in strong colours for striking sales appeal.

• Versatile - great for bench-run pack and small pot programs.

New Yellow Improved Fits the series better for habit and timing compared to Yellow, which was taller than the other varieties.

New Mixture Improved Contains NEW Yellow Improved in place of Light Yellow. Upgraded for uniformity and brighter colours.

CUT FLOWER CELOSIA Bombay Series, page 180. Celway Series, page 183. Neo Series, page 181. Spring Green, page 180.

Sunday Series, page 182.



Dracula

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First Flame Red

Celosia cristata

Dracula

Height: 8 to 16 in./20 to 41 cm

Seed supplied as: Coated

Transplant to finish: 6 to 8 weeks

ANNUALS / PREMIUM SHADE COLEUS



Kong Scarlet

PREMIUM SHADE COLEUS • • Solenostemon scutellarioides

Kong[®] Series



Height: 18 to 20 in./46 to 51 cm **Spread:** 15 to 18 in./38 to 46 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 3 to 4 weeks

• Extremely large leaves and unique patterns on well-branched plants.

• Excellent shade alternative for large containers, large mixed combos and landscapes.

• Also works in indoor plant programs.

• Prefers full shade for best performance.

Lime Sprite Can show rose midrib in deepest shade; flowers at the late end of the series, similar to Red.

Empire Mixture Contains all 6 colours.

KONG Mosaic, Red and Rose are bred by Sakata Seed Corporation.



Kong Lime Sprite



Kong Salmon Pink US PVP 200900035

Kong Jr.™ Series

PRO LANDSCAPE 0

Height: 18 to 24 in./46 to 61 cm **Spread:** 20 to 35 in./51 to 89 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 3 to 4 weeks

• Kong Jr.'s heart-shaped leaves are 30% smaller than Kong's, but just as stunning. They make Kong Jr. easier to ship, with less breakage and less loss.

• Leaf size is well-matched across the series.

• Well-branched, tidy habit is irresistible to shoppers.

Performs well in landscapes, patio planters and mixed containers.

• Adds unique colours and patterns not available in Kong series.

• Also works in indoor plant programs.

Lime Vein Shows less veining and less to no rose midrib in the mahogany heart under brighter shade. In deeper shade, vein pattern is stronger and rose may appear in the mahogany heart at midrib.



Kong Red US PVP 200500015



Kong Rose US PVP 200500017



Kong Mosaic



Kong Jr. Scarlet

Use a mix of coleus to create this Fuseables Combo!



Fusables Chocolate Symphony, see page 226.



Kong Empire Mixture



Kong Jr. Lime Vein

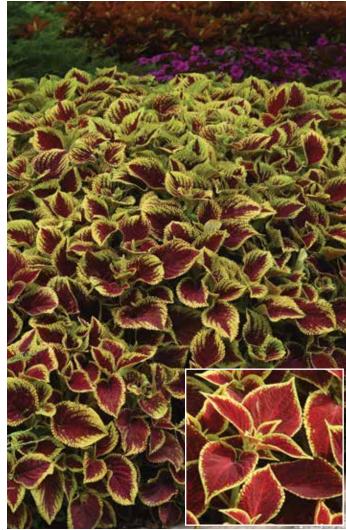


Kong Jr. Green Halo



Kong Jr. Rose

ANNUALS / PREMIUM SUN COLEUS



Crimson Gold



Dark Chocolate

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Chocolate Mint



Chocolate Covered Cherry

PREMIUM SUN COLEUS Oslenostemon scutellarioides

Show-stopping colours...bold patterns...rich textures: Pro landscapers and gardeners love these centre stage varieties for their great looks and reliable performance in sunny gardens and patio planters. Our Premium Sun Coleus can tolerate full sun in regions of high relative humidity such as Hardiness Zones 9 and 10. Foliage will scorch in full sun with low relative humidity. All are suitable for shade.

All Premium Sun Coleus are supplied as pelleted seed.

Plug crop time: 5 to 6 weeks Transplant to finish: 6 to 8 weeks

Chocolate Covered Cherry

Height: 12 to 14 in./30 to 36 cm **Spread:** 10 to 12 in./25 to 30 cm

• Boldly patterned, multi-coloured foliage makes a great companion to our other "chocolate" coleus: Chocolate Mint and Dark Chocolate.

• Non-fading colour pattern: rose centre on each leaf is surrounded by deep mahogany and edged with green.

• Late flowering and dwarf size are adaptable to pack and pot programs.

• Performs well in planters and small gardens in sun and shade.

Chocolate Mint

Height: 14 to 20 in./36 to 51 cm Spread: 12 to 14 in./30 to 36 cm

• Easy-to-grow, dark-leafed plants show off a rich chocolate colour, with each mid-size leaf finely edged in mint green.

• Upright accent plants are wellsuited to in-ground plantings and large containers.

Crimson Gold



Height: 14 to 18 in./36 to 46 cm Spread: 14 to 18 in./36 to 46 cm

- Well-branched, vigorous plants show off beautiful, bicolour foliage all season.
- Versatile variety thrives in sun and shade.
- Deep red leaves with golden green edge.
- Late-flowering.

Dark Chocolate

Height: 24 to 30 in./61 to 76 cm Spread: 18 to 24 in./46 to 61 cm

• Upright accent plants have mid-size leaves in a rich mahogany brown. Slight touches of burgundy appear, especially in full sun conditions.

A good choice for large mixed containers and in-ground plantings.
Rich mahogany brown partners well with many colour schemes.





Lime Delight

Lime Delight



Height: 28 in./71 cm Spread: 18 to 22 in./46 to 56 cm

Bright foliage is the centre of attention in designer gardens.
Vibrant, lime green to golden colour plays well with others.

Mighty Mosaic



Height: 18 to 26 in./46 to 66 cm **Spread:** 18 to 22 in./46 to 56 cm

Striking, multi-coloured foliage assures mighty retail appeal.
Very late-flowering variety is great in the shade and tolerates sun under high humidity.

• Landscape coleus meets retailer and consumer demand for longevity and versatility.

Watermelon

Height: 20 in./51 cm Spread: 18 to 22 in./46 to 56 cm

• Watermelon-coloured leaves with green edges in cool conditions mature to deep pink under warmer conditions.

• Can be used in sunny or shady landscapes.

• Beautifully coloured foliage with late flowering.

Pineapple Surprise

PRO LANDSCAPE

Height: 18 to 26 in./46 to 66 cm **Spread:** 18 to 22 in./46 to 56 cm

• Unique and versatile tricolour pattern: iridescent chartreuse and deep burgundy hearts are splashed with chartreuse and green. The surprise: Up to 3% of plants can show primarily darker green/burgundy bicolour instead of chartreuse.

Stable colour/pattern all season like similar vegetative varieties.
Very late-flowering for longerlasting performance and holds very well in extreme weather.

Rose to Lime Magic

Height: 24 in./61 cm **Spread:** 18 to 22 in./46 to 56 cm

Unique variety changes colour as the season progresses - rose colour in leaves eventually dissolves, exposing green margins and cream centres.
Bred to perform in full sun and

full shade.

Late to flower, allowing patterned foliage to shine all season long.
Well-branched and vigorous in the landscape.



Pineapple Surprise



Rose to Lime Magic: Stage 1, 2 & 3



Mighty Mosaic

Watermelon

ANNUALS / WIZARD



Wizard Select Mixture Coleus



Wizard Golden Coleus



Wizard Coral Sunrise Coleus



Wizard Velvet Red Coleus

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Wizard Mixture Coleus



Wizard Jade Coleus



Wizard Rose Coleus

PACK COLEUS • • Solenostemon scutellarioides

Black Dragon

Height: 12 to 14 in./30 to 36 cm **Spread:** 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 5 to 6 weeks

- Exotic, serrated leaves and unusual texture set this variety apart from other coleus.
- Deep red colour with a purplishblack edge.
- Outstanding in packs or pots.



Wizard Mosaic Coleus



Wizard Sunset Coleus



Wizard Scarlet Coleus

Wizard[®] Series

Height: 12 to 14 in./30 to 36 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 7 to 9 weeks

- Low-maintenance, uniform and basal-branching plants are late-flowering, extending their landscape value.
- Mid-sized leaves.
- Great for packs.

• Useful for indoor plant programs. **Coral Sunrise** Can start out salmonpink under cooler conditions and mature to lighter pink when warmer. Good in sun.

COLORGRASS

See page 42.

See Perennials, page 139. CORYNEPHORUS

See ColorGrass, pages 43.



Wizard Rose Coleus



Black Dragon Coleus



Antiquity Cosmos Fleuroselect Novelty

COSMOS O Cosmos bipinnatus

Antiquity

Height: 20 to 30 in./51 to 76 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

- 2-in./5-cm flowers open rich burgundy and mature to antique bronze-salmon.
- Very early and floriferous.
- Well-suited to 3.5 to 4-in./9 to 10-cm pots.

ANNUALS / PINK SHIMMER

Sonata[™] Series

Height: 24 in./61 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• The best-performing garden cosmos.

 Extremely easy to grow; professional growers choose Sonata because of its capabilities for blooming in the pack and pot. • Recommended for 5 to 6-in./ 13 to 15-cm pots.

New Red Shades New red colour expands the series! It features the excellent seed quality the Sonata Series is known for, with a flower that is more full and round compared to the competition's red.

New Mixture Improved This mix now offers the most complete colour range in Cosmos bipinnatus, adding the unique Purple Shades and NEW Red Shades into the mix.

COSMOS 🕘 🌖

Cosmos sulphureus

New Mandarin

Height: 10 to 12 in./25 to 30 cm **Spread:** 6 to 8 in./15 to 20 cm

Seed supplied as: Raw

Plug crop time: 3 to 4 weeks Transplant to finish: 5 to 7 weeks

• Mandarin has a deeper orange colour, a better habit and is more uniform compared to competing varieties.

 Slightly more compact variety has a more mounded shape.

CROSSANDRA 😑

Crossandra infundibuliformis

Tropic Series

Height: 10 in./25 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 6 to 7 weeks Transplant to finish: South, 10 to 11 weeks

• Heat-tolerant continuous bloomer makes a premium landscape plant in tropical and semi-tropical areas from Florida to southern Asia.

Yellow Splash Flowers mature quickly to cream with yellow base in Florida trials.

CUPHEA 😑 Cuphea ignea

Dynamite

Height: 8 to 10 in./20 to 25 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 6 to 7 weeks

• Well-suited to solo and mixed containers.

 Also works in indoor plant programs.

CUPHEA 💛 🌖

Cuphea ramosissima

New Pink Shimmer

Height: 10 to 16 in./25 to 41 cm Spread: 12 to 18 in./30 to 46 cm

Seed supplied as: Precision Multi-Pellets

Plug crop time: 4 weeks Transplant to finish: 5 to 11 weeks

• Pink Shimmer can be easily sown for efficient plug production. Offers improved natural branching over other varieties. • Profusions of petite flowers cover the delicate leaves all Summer

lona. • Great for use in combinations of all kinds.

• This reblooming gem requires no deadheading and looks great even under hot conditions.



Sonata Mixture Improved Cosmos



Cosmos

Medal

Sonata White Sonata Pink Cosmos Fleuroselect Gold Fleuroselect Quality Mark, Fleuroselect Noveltv



Sonata Purple Shades Cosmos



Pink Shimmer Cuphea US PVPAF



Tropic Flame Crossandra



Sonata Red Shades Cosmos



onata Pink

Blush Cosmos

Fleuroselect Quality Mark, Fleuroselect



Cosmos Fleuroselect Quality Mark, Fleuroselect Noveltv



Mandarin Cosmos



Dynamite Cuphea

Tropic Yellow Splash Crossandra

ANNUALS / DREAMSCAPE



Dreamscape Purple Cyclamen





Dreamscape D Deep Burgundy B Cyclamen C

Dreamscape Bright Red Cyclamen





Dreamscape Salmon Eye Cyclamen





Dreamscape Dark Flamed Mixture Cyclamen

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Dreamscape White Cyclamen

CYCLAMEN • • Cyclamen persicum

Dreamscape™ Series F1

Height: 6 to 9 in./15 to 23 cm Spread: 9 to 13 in./23 to 33 cm

Seed supplied as: Raw

Plug crop time: 8 to 9 weeks Transplant to finish: 19 to 20 weeks

Dreamscape varieties are specially bred and selected to deliver the best outdoor performance of any cyclamen.
Pro landscapers and home gardeners alike can now confidently plant cyclamen inground and count on better, longer performance.

• Sow all colours at the same time to ship and sell together.

Deep Burgundy Unique colour for the outdoor cyclamen market.

Deep Rose Unique colour for outdoor and landscape use. The model for the series, Deep Rose is outstanding in landscape and garden beds.

Purple Deep, intense purple colour. Salmon Eye Large, dark salmon flowers with very nice eye, on a slightly larger plant than the other Dreamscape varieties.

White The best white cyclamen for outdoor performance.

Dark Flamed Mixture Wellbalanced mix of dark flamed colours.



Pink Zebra Ornamental Corn

ORNAMENTAL CORN *O*

Pink Zebra

Height: 48 to 60 in./122 to 152 cm **Spread:** 12 to 18 in./30 to 46 cm

Seed supplied as: Raw

Plug crop time: 1 to 2 weeks Transplant to finish: Late Spring 4 to 6 weeks, Autumn 3 to 5 weeks

• Grow late Summer and Autumn sales with the only dwarf variegated ornamental corn on the market. Home gardeners will love the dramatic colour and texture in their late-season mixed planters and gardens, and fresh market farmers will captivate their customers, too!

• Green and white striped foliage adds showy purples/red/pinks in cool nights/long days.

• Better tillering in Autumn than other ornamental corns - each stalk produces many small ears with purple kernels and tassels.

• Great for quarts and gallons, with fast finish from plugs or direct sown.

ANNUALS / JOLT



Jolt Pink Magic

INTERSPECIFIC DIANTHUS O Dianthus barbatus interspecific

Jolt[™] Series F₁



Height: 16 to 20 in./41 to 51 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: Late Spring through Autumn finish, 11 to 13 weeks; Winter finish, 14 to 18 weeks

• Shocking Summer Colour from the most heat-tolerant Interspecific Dianthus!

• Electrifying colours and all-season performance make Jolt stand out in landscapes and premium containers.

• Highly durable plants withstand hot conditions with few disease issues and continue to flower without setting seed.

• Grower-friendly, well-branched plants are easy to produce with less to no PGRs.

• Perfect for Summer premium grower choice quarts and gallons to command a higher price point.

Strong dark green foliage.
Performs as a semi-hardy annual in Zone 7 (0°F/-18°C minimum

temperature) and milder. • All-America Selections National Winner Jolt Pink continues to stir up consumer excitement with extra publicity and promotion.

Pink Magic Flowers open white, then light pink, and mature to dark pink; optimal colour pattern results from high light and cool night temperatures.



Pink All-America Selections National Winner



Cherry

ANNUALS / DASH



Dash Mixture



Dynasty White Blush



Dynasty Orchid RHS Award of Garden Merit



Dynasty Rose Lace

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Dash Magician



Dash White



Dynasty Pink Magic



Dynasty Purple



Dynasty Red



Dash Pink

SINGLE DIANTHUS Oianthus barbatus

Dash[™] Series F₁

PRO LANDSCAPE

Height: 15 to 20 in./38 to 51 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: Late Spring/ early Summer, 9 to 10 weeks; late Summer/Winter, 11 to 12 weeks

- The best *D. barbatus* for premium guarts and gallons.
- Naturally compact and wellbranched - needs less to no PGRs for easy, year-round container production.
- Sweet William-type dianthus requires no vernalisation for flowering.
- Produces masses of fragrant blooms.
- Low-energy crop can be grown cool for cost savings.

Magician Flowers open white and mature to shades of rose.



Dash Violet



Dash Crimson

DOUBLE DIANTHUS O Dianthus barbatus interspecific

Dynasty Series F1

Height: 16 to 20 in./41 to 51 cm Spread: 10 in./25 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 8 to 9 weeks

- Very well-branched, upright and strong-stemmed, these excellent landscape and garden performers double as a great backyard cut flower.
- Fast-blooming plants respond well to growth regulators applied for potted plant height and tighter umbels.

• Performs as a perennial in USDA Hardiness Zones 6a to 9b (-10 to 25°F/-23 to -4°C minimum temperature).

Pink Magic Flowers open white, then light pink, and mature to dark pink; optimal colour pattern results from high light and cool night temperatures.

White Blush White with attractive rosy-pink blush that varies with environmental conditions.

ANNUALS / CORONA

Crowned with huge flower power

Wow 'em with the biggest blooms of any dianthus of this type...exceptional flower form... and a palette of showstopping colour choices. Corona adds a regal touch to coolseason landscapes, gardens and patio planters.

SINGLE DIANTHUS Olianthus chinensis

Corona[™] Series F1



Height: 8 to 10 in./20 to 25 cm Spread: 8 to 10 in./20 to 25 cm Flower size: 2 to 3 in./5 to 8 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 6 weeks Transplant to finish: 6 to 8 weeks

At 2 to 3 in./5 to 8 cm, Corona's blooms are larger than the competition, plus it offers uniform flowering time and habit.
Produces multiple flowers on a

compact, mounded plant. • Gives its best performance in

cool weather, making it great planted along with other coolseason annuals such as pansies.

Cherry Red Solid cherry colour; some flowers show a darker red centre.

Rose Solid rose colour, with some blooms showing a darker centre.

Strawberry Variable pattern in coral/salmon shades. Some flowers are solid coral, some are coral bicolour and some have a darker coral picotee against a lighter background.

White Clean, clear white.

New Mixture Brighten colour bowls and gardens with this mix of Cherry Red, Rose, Strawberry and White. Huge flower size and uniformity make it the best choice in this class of dianthus.



Corona Mixture



White and Cherry Red





Rose



L: Corona Strawberry R: Competing Strawberry variety



Cherry Red



Strawberry



White

ANNUALS / FLORAL LACE



Floral Lace Red



Floral Lace True Rose



Floral Lace Cherry





Ideal Select Violet All-America Selections National Winner (All-America Classic)



Ideal Select Red



Floral Lace Purple



Floral Lace Picotee



Floral Lace Violet Picotee Floral Lace Mixture



Ideal Select White



Ideal Select Raspberry



Floral Lace White



Floral Lace Lilac



Ideal Select Rose Fleuroselect Quality Mark, RHS Award of Garden Merit



Ideal Select WhiteFire RHS Award of Garden Merit



Ideal Select Mixture



Floral Lace[™] Series F1



Height: 8 to 10 in./20 to 25 cm Spread: 8 in./20 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

- Early flowering with the largest blooms of any *D. chinensis x*
- barbatus up to 1.5 in./4 cm across. • Performs well in gardens under tough conditions as an annual or biennial.
- Good for high-density Spring and Autumn pack or small pot programs.
- Bright green leaves.

Picotee Colour pattern is not as distinct as traditional "picotee," but delivers a nice novelty white and rose-red bicolour.

New Red This rich, red-burgundy represents a key colour that was missing from the series.

Mixture Streamlined mix includes the most uniform, brightest colours in the series for better uniformity for the finished grower.

Ideal Select[™] Series F1

Height: 8 to 10 in./20 to 25 cm Spread: 8 in./20 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

- Well-matched habit and tight flowering window let you bench run and ship all together.
- Early-flowering series is good as an annual or biennial.
- Well-suited to high-density small pack or pot programs for Spring and Autumn sales.

CUT FLOWER DIANTHUS Amazon Series, page 183. Sweet Series, page 184.

PERENNIAL DIANTHUS Rockin' Series, page 142.



Figaro Original Field Grown Mixture Dahlia



Figaro Orange Shades Dahlia Fleuroselect Quality Mark, Fleuroselect Novelty

DAHLIA **Dahlia** x hybrida

Figaro™ Series

Height: 14 to 18 in./36 to 46 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

• Premium pack item is ideal for borders and containers.

Original Field Grown Mixture Contains 100% semi-double and fully double flowers.

DELPHINIUM See **Perennials**, page 140.



Figaro Red Shades Dahlia Fleuroselect Quality Mark, Fleuroselect Novelty



Figaro Violet Shades Dahlia Fleuroselect Quality Mark, Fleuroselect Novelty



Figaro White Dahlia

Make a Plug & Play Combo they'll fall for with Silver Falls dichondra!



Plug & Play Combo Peach Melba Parfait, see page 235.



Silver Falls Dichondra

DICHONDRA 🤍 🌖 Dichondra argentea

Silver Falls



Height: 2 to 3 in./5 to 8 cm in the ground

Spread/Length: 3 to 4 ft./91 cm to 1.2 m; up to 6 ft./1.8 m in areas with a longer growing season

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 6 to 7 weeks

• True cascading habit is excellent for mixed containers or hanging baskets.

• Performs as a low-growing groundcover, but requires well-drained soils.

- Also well-suited to indoor plant programs.
- Very heat and drought tolerant.
- No pinching needed.



Emerald Falls Dichondra

DICHONDRA O Dichondra repens

Emerald Falls



Height: 2 to 4 in./5 to 10 cm in the ground

Spread/Length: 36 in./91 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 5 to 6 weeks Transplant to finish: 7 to 8 weeks

- Denser, tighter and shorter than Silver Falls, without pinching or PGRs.
- Medium green leaves are more rounded and held closer to the stem.
- Good for hanging baskets.
- Also performs well as a heattolerant, low-growing groundcover.

DIGITALIS

See Perennials, page 141.

ANNUALS / NEW DAY



New Day White



Red Stripe



Bright Mixture



Rose Stripe



Pink Shades



Tiger Mixture



Sunny Side Up Mixture

40



Yellow Improved



Clear Orange



GAZANIA 😐 Gazania rigens

New Day[®] Series F1

Height: 8 to 10 in./20 to 25 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Coated

Plug crop time: 4 to 5 weeks Transplant to finish: 8 to 9 weeks

• More uniform flowering than competing varieties, with larger flowers and better plant habits.

- Compact, sturdy, high-quality plants are easy to produce and superholdable at retail.
- Bred to deliver shorter peduncles and beefier-looking plants.
- Well-suited to high-density pack and small container production.
- Drought-tolerant series performs beautifully in containers and baskets, and as a garden edging or groundcover.

New Yellow Improved Features a larger flower with rounder petals, providing an increased show of colour.

Bright Mixture Bronze Shades, Yellow, Clear Orange, Pink Shades. Strawberry Shortcake Mixture Pink Shades, Rose Stripe, White. Sunny Side Up Mixture Clear Orange, Yellow, White.

Tiger Mixture Red Stripe and Rose Stripe.



Red Shades



Bronze Shades



Strawberry Shortcake Mixture

GAZANIA





Glamour Improved Euphorbia



Citrona Yellow Erysimum

DUSTY MILLER Cineraria maritima/ Senecio cineraria

Silverdust

Height: 10 in./25 cm Spread: 10 in./25 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 7 to 8 weeks

• Finely cut, silvery white, velvety foliage on uniform plants. • Adds contrast and texture to

beds and borders. • Size and uniform habit also make

Silverdust perfect for container plantings.

 Seed is graded for more uniform germination.



Citrona Orange Erysimum

ECHINACEA See Perennials, page 143.

Citrona® Series

Height: 10 to 12 in./25 to 30 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: 7 to 9 weeks

 Very floriferous, well-branched plants display bright, scented

blooms in Spring and Autumn. • No vernalisation needed.

• Matches pansy production well;

grow in premium packs, 4-in./ 10-cm pots and gallons.

Use Glitz euphorbia to create hot Plug & Play Combos like this!



Wave Plug & Play Combo Fire N Nice, see page 231.



EUPHORBIA 😑 Euphorbia graminea

New Glamour Improved



Height: 15 to 24 in./38 to 61 cm Spread: 15 to 24 in./38 to 61 cm

Seed supplied as: Raw

Plug crop time: 3 to 4 weeks Transplant to finish: 5 to 8 weeks

• The best variety for in-ground performance.

• Early to flower, with the vigour to hold up to a variety of weather challenges.

 An exceptional choice for a 'Baby's Breath Gypsophila' like application in the landscape. • Use with vigorous plants like Tidal Wave® Red Velour petunia for a stunning combination in-ground, or weave like a cloud-like hedge through more bold-textured annuals for great contrast.



Silverdust Dusty Miller

Glitz F1

Height: 10 to 14 in./25 to 36 cm **Spread:** 12 to 18 in./30 to 46 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 8 weeks

• Delivers the performance of its vegetative counterparts without the headaches.

- The perfect habit for premium
- mixed containers.
- Easy to grow no pinching needed.
- Suitable for grower choice
- premium quarts.

EUSTOMA See Lisianthus

EXACUM See Potted Plants, page 168.

FESTUCA See ColorGrass, page 44.

FIBER OPTIC GRASS See Isolepsis in ColorGrass, page 42.

FRAGARIA See Strawberry

Glitz Euphorbia

ERYSIMUM 😑

Erysimum species

Complementary colour

The ColorGrass® Collection lets you grow and sell the broadest range of ornamental grasses from seed! These unique varieties accent landscapes and containers with height, colour and texture. Create this sunny Plug & Play Combo with Sirocco anemanthele!



Plug & Play Combo XXL Tuscan Sun, see page 239.



Red Rooster Carex



Live Wire Isolepis

Coolio Koeleria



Transplant Features Variety/Exposure USDA Colour Height Spread **Containers** Plug crop to finish Zones group time (weeks) (weeks) LOW HABIT (2 to 8 in./5 to 20 cm) 306 pack, 4 in./10 cm, Annual grasslike plant features a short mound of soft green leaves 6-7 Green 6-8 in./ 18-20 in./ 8-10 5 Isolepis Live Wire 🌖 15-20 cm 46-51 cm I. cernua accented by flower spikes that look like "fiber optic" strands. Ideal for 6 in./15 cm*, (Fiber Optic Grass) Gallon adding texture to mixed combos or used as an indoor plant. Dense, mounded habit needs no pinching or PGRs, grows upright when young and drapes as it matures. Performs well in wet conditions. Prefers shade, but can handle sun if moisture is maintained. 4 in./10 cm, 6 in./15 cm*, Upright, blue-green grass is ideal for dry locations. Grows to 20 in./51 cm 6-8 in./ 8 in./20 cm 6-8 6-7 6-7 Koeleria Coolio 🔵 🌗 Green 15-20 cm K. glauca after the first season. Gallon 4 in./10 cm, 9-10 Carex Amazon Mist 🔵 Green 6-12 in./ 14 in./36 cm 6-10 6-7 Variegated light/medium green 15-30 cm 6 in./15 cm*, grass has twisting tips and an arching C. comans Gallon ĥabit. (Leatherleaf Sedge) 4 in./10 cm, 6-12 in./ 8-9 Bronze-brown variety has an arching Carex Bronco 🔵 Brown 14 in./36 cm 6-10 6-7 6 in./15 cm*, 15-30 cm habit. C. comans Gallon (Leatherleaf Sedge)

*3 plants per pot

All ColorGrass varieties are supplied as multi-seed pellets.

ANNUALS







Bronco Carex

Spiky Blue Corynephorus

Festina Festuca



Lucius Luzula



Spiky Blue Corynephorus



Starhead Juncus

Sirocco Anemanthele

Variety/Exposure	Colour group	Height	Spread	USDA Zones	Containers	Plug crop time (weeks)	Transplant to finish (weeks)	Features	
LOW HABIT (2 to 8 in./5 to 20 cm)									
Luzula Lucius 🔵 🌗 L. nivea	Green	6-12 in./ 15-30 cm	18 in./46 cm	4-9	4 in./10 cm, 6 in./15 cm*, Gallon	4-7	8-9	Upright and arching evergreen grass has flat, mid-green leaves fringed in white hairs. Small, white flowers in spiky inflorescences in Spring/early Summer. Flourishes in damp, shady areas.	
Corynephorus Spiky Blue O C. canescens (Clubawn Grass)	Green	6-12 in./ 15-30 cm	8 in./20 cm	5-9	4 in./10 cm, 6 in./15 cm*, Gallon	6-7	6-7	Compact, spiky, blue-green tufts mature to reddish-green.	
MEDIUM HABIT (8 to 18 in./20 to 46 cm)									
Juncus Starhead 🔵 🌗 J. ensifolius	Green	8-10 in./ 20-25 cm	8-10 in./ 20-25 cm	4-10	4 in./10 cm, 6 in./15 cm*, Gallon	6-7	7-8	Compact variety displays green, broad-leafed foliage and long-lasting, dark green star inflorescences.	
Anemanthele Sirocco O	Green/ Brown	12-14 in./ 30-36 cm	22-24 in./ 56-60 cm	7-10	4 in./10 cm, 6 in./15 cm*, Gallon	5-6	6-8	The only pink grass from seed - colour turns to shades of copper and pink under cool conditions, natural sunlight and maturity. Adds movement and texture to landscapes, gardens, mixed containers and baskets.	

In addition to our ColorGrass Collection, PanAmerican Seed offers Juncus Fuseables Twisted Arrows and Fuseables Twisted Dart (page 226).



ColorGrass ornamental grasses bring patios and landscapes to life.



Blue Arrows Juncus with Glitz Euphorbia and Red Geranium





1

Twister Juncus

Pony Tails Stipa

Variety/Exposure	Colour group	Height	Spread	USDA Zones	Containers	Plug crop time (weeks)	Transplant to finish (weeks)	Features	
MEDIUM HABIT (8 to 18 in./20 to 46 cm)									
Festuca Festina O F. cinerea (F. glauca)	Green	12-18 in./ 30-46 cm	10-15 in./ 25-38 cm	4-10	4 in./10 cm, 6 in./15 cm*, Gallon	6-7	6-7	Very cold-hardy variety produces dense, compact tufts of blue-green, with small, upright brown plumes from Summer to Autumn.	
Juncus Blue Dart 🔘 🌗 J. tenuis	Green	14-16 in./ 36-41 cm	10-12 in./ 25-30 cm	4-10	4 in./10 cm, 6 in./15 cm*, Gallon	6-7	7-8	Linear blue foliage adds texture to small containers and in-ground planting. Strong vertical habit - faster, more reliable alternative to spike dracaena. Easy-care and adaptable to a wider range of conditions, including standing water and drought. Attractive indoor or water plant. Great retail shelf life.	
Juncus Twister 🕒 J. effusus spiralis	Green	12-14 in./ 30-36 cm	12-14 in./ 30-36 cm	5-9	4 in./10 cm, 6 in./15 cm*, Gallon	7-8	6-7	Unusual juncus is economical and easy to grow – a fun addition to mixed containers. Shoppers love the small, curly green leaves of this upright plant. Can be grown as a "mini" for expanded sales opportunities. Also thrives in wet conditions, making it a useful pond plant.	
TALL HABIT (18 in./46 cm and taller)									
Stipa Pony Tails O S. tenuissima (Mexican Feather Grass)	Green	16-24 in./ 41-61 cm	24 in./61 cm	6-10	4 in./10 cm, 6 in./15 cm*, Gallon	5-6	7-10	Upright grass has fine, needlelike green foliage, with silky green flowers in July that mature to golden blonde.	

*3 plants per pot

44 GRASSES



Javelin Juncus



Lucius Luzula



Pony Tails Stipa with Emerald Falls and Silver Falls Dichondra and New Day Clear Orange Gazania



Phoenix Green Carex

Red Rooster Carex





Variety/Exposure	Colour group	Height	Spread	USDA Zones	Containers	Plug crop time (weeks)	Transplant to finish (weeks)	Features	
TALL HABIT (18 in./46 cm and taller)									
Carex Phoenix Green C. comans (Leatherleaf Sedge)	Green	20-24 in./ 51-61 cm	16-20 in./ 41-51 cm	6-10	4 in./10 cm, 6 in./15 cm*, Gallon	5-7	6-7	Sturdy, upright, narrow-leafed sedge has bright green foliage. Good heat tolerance. Easy-care for accent in landscapes, planters.	
Carex Red Rooster O C. buchananii	Red	20-30 in./ 51-76 cm	12 in./30 cm	6-9	4 in./10 cm, 6 in./15 cm*, Gallon	6-7	8-9	Red-bronze grass has curled tips and upright habit.	
Juncus Blue Arrows O J. inflexus	Green	36 in./91 cm	12 in./30 cm	5-9	4 in./10 cm, 6 in./15 cm*, Gallon	6-7	6-7	Stiff, upright, blue-green foliage is well-suited to annual bedding and mixed containers. Heat-tolerant in a wide range of environments. Can be grown as a pond plant, but drought- tolerant when grown in-ground. Also makes a great indoor plant.	
Juncus Javelin O J. pallidus	Green	48 in./1.2 m	18-20 in./ 46-51 cm	8-10	4 in./10 cm, 6 in./15 cm*, Gallon	5-6	5-6	Developed from unique genetics and available only from PanAmerican Seed, Javelin makes a dramatic "thriller" for mixed containers. Can grow up to 5 ft./1.5 m tall in gardens/ landscapes. Rugged, upright plant can grow in standing water, but also handles heat/drought. Provides great Winter interest, maintaining upright, stiff, straw-colour foliage.	

ANNUALS / SUNSHINE MIXTURE



Summer Showers White Blush Ivy Geranium



Summer Showers Burgundy Ivy Geranium



Sunshine Mixture Gazania

FUSEABLES See Plug & Play Combos

GALLARDIA See Perennials, page 145.

GAURA See Perennials, page 146.

TETRAPLOID GAZANIA O Gazania rigens

Sunshine Mixture

Height: 12 in./30 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Raw

46

Plug crop time: 4 to 5 weeks Transplant to finish: 9 to 10 weeks

Long-blooming mix includes cream, yellow, orange, pink and red shades, with some striped flowers.
Upright plants are excellent for the bedding market as a landscape-performing garden plant, with larger flowers and robust growth.



Summer Showers Fuchsia Ivy Geranium



Summer Showers Mixture Ivy Geranium



QIS Orange Gomphrena

IVY GERANIUM

Summer Showers Series

Height: 12 to 15 in./30 to 38 cm **Spread:** 12 to 15 in./30 to 38 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 11 to 12 weeks

• Vigorous, upright habit.

• Big flower heads and distinctive ivy leaves for beautiful baskets, tubs, window boxes, mixed containers

 Series is well-matched on the bench and in the garden, with great performance in hot, humid climates.

Burgundy May include up to 8% lavender.

Fuchsia Compact habit is similar to White Blush.

White Blush Tidy, compact habit. Bright white florets with pink "whiskers" turn light pink at maturity.



QIS Red Gomphrena

GOMPHRENA 😑

Gomphrena haageana

Seed supplied as: Raw

See Potted Plants, page 169.

Height: 24 to 26 in./61 to 66 cm

Spread: 8 to 10 in./20 to 25 cm

Plug crop time: 5 to 6 weeks

Versatile series works well for

landscape and garden use.

Summer-long standout.

Also available: Mixture

and dried use.

Transplant to finish: 10 to 12 weeks

• Vivid colour range makes these a

outdoor production; suited to fresh

• Also as a first-class professional

cut flower for greenhouse and

GERBERA

QIS Series

Fireworks Gomphrena



QIS Carmine Gomphrena Fleuroselect Quality Mark

GOMPHRENA O Gomphrena pulchella

Fireworks



Height: 48 in./122 cm Spread: 48 in./122 cm

Seed supplied as: Coated

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 9 weeks

• More blooms per plant and unique "scaffolding" habit make Fireworks sparkle at retail, then explode with colour in landscapes and containers.

• Vigorous, "tough as nails" plants are drought tolerant, low maintenance.

• Attractive architectural element for landscapes; also excellent for mixed cut flower bouquets.

• Easy to produce - stays compact as a plug.

 Well-suited to high-margin gallon programs; suitable for field or garden cut flower production. *Mississippi Medallion Award*

GAZANIA Request your Product Information Guide for full culture details

ANNUALS / MAHOGANY SPLENDOR



Silver Mist Helichrysum

GYPSOPHILA See Perennials, page 146.

HELENIUM O Helenium amarum

Dakota Gold

Height: 12 to 14 in./30 to 36 cm **Spread:** 24 to 28 in./61 to 71 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 3 to 4 weeks Transplant to finish: 5 to 7 weeks

Easy-care variety performs from hot and dry to cool and rainy.
Strong-growing and compact, mounded plants are covered with bright golden yellow blooms over fine-textured foliage.

• Quick crop time.

• Grow under long days for the best habit and vigour.

North Texas Winner's Circle Award; Japan Flower Selections Certificate of Merit as Best Flower Award Mahogany Splendor Hibiscus

HELICHRYSUM Helichrysum microphyllum

(Plectostachys serphyllifolia)

Silver Mist

Height: 6 to 8 in./15 to 20 cm Spread: 18 to 24 in./46 to 61 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 6 to 7 weeks Transplant to finish: 8 to 9 weeks

• Accent plant for mixed containers and landscapes, as well as an indoor plant.

• Full, mounded and spreading plants branch well without pinching.

 Silver colour intensifies with more light; under lower light, foliage appears more green.

HEUCHERA

See Perennials, page 146.

HIBISCUS O Hibiscus acetosella

Mahogany Splendor



Height: 36 to 60 in./91 to 152 cm Spread: 24 to 30 in./61 to 76 cm

Seed supplied as: Raw

Plug crop time: 2 to 3 weeks Transplant to finish: 5 to 6 weeks

• Adds awesome colour and dramatic height to landscapes and containers.

• Deep burgundy, maple-shaped leaves with serrated edges.

• Drought and heat-tolerant; combines well with other vigorous sun-loving plants in containers.

• Can be grown directly in the water as a pond plant. NOTE: Foliage will have green/ rust tones in the greenhouse, but matures to burgundy in full sun outdoors.



13999

Dakota Gold Helenium US PVP 200600009





Bring Impatiens walleriana back into production without the risk of disease! Beacon impatiens offer **high resistance** to the currently known and widely prevalent populations of *Plasmopara obducens*, which cause **Impatiens downy mildew**. For lasting colour, you can rely on Beacon to thrive. Visit BeaconImpatiens.com for more information.

N E W Beacon Orange

48



Beacon Coral (L) outperforms a susceptible competing variety (R), at Venhuizen field trials in 2018.

IMPATIENS ● ● ● Impatiens walleriana New Beacon[™] Series F1



Height: 10 to 12 in./25 to 30 cm Spread: 12 to 14 in./30 to 36 cm Flower size: 1.25 to 1.5 in./3 to 4 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 3 to 4 weeks

• Beacon impatiens exhibit high resistance to the currently known and widely prevalent populations of *Plasmopara obducens*, which cause Impatiens downy mildew.

• Beacon offers the opportunity to bring back into production a wellknown, in-demand, easy-to-grow and versatile product for increased sales.

• With a plant structure, flowering time, flower size and crop culture that is similar to Super Elfin, Beacon is easy to incorporate into production planning.

• Offers season-long colour, and it brings back fast-filling colour to gardens and landscapes.

New Bright Red A warm-toned red on upright mounded, moderately vigorous plants with mid-green foliage. Plant vigour is slightly larger than Super Elfin XP Red, and the flower size is slightly smaller.

New Coral Coral-pink flowers on mid-vigour, mounded plants with bright green foliage.

New Orange A bright, clean orange on moderate-vigour, upright mounded plants with bright green foliage. Plant height, vigour and flower size are similar to Super Elfin Bright Orange.

New Salmon A warm salmonorange flower on mid-vigour, mounded plants with bright green foliage.

New Violet Shades Shades of bright violet and burgundy-violet on moderate-vigour, upright mounded plants with mid-green foliage. More vigorous with the same flower size as Super Elfin XP Violet.

New White Pure white flowers on moderately vigorous, upright mounded plants with mid-green foliage. Features more plant vigour with the same flower size as Super Elfin XP White.

New Red White Mixture Bright Red, White.

New Select Mixture Bright Red, Coral, Orange, Salmon, Violet Shades, White.

ANNUALS / BEACON



Violet Shades US PAF



Bright Red US PAF



Violet Shades US PAF



White US PAF



Orange US PAF

N E W White US PAF



NEW

Select Mixture US PAF



NEW Beacon Series has high resistance to Impatiens downy mildew!



Salmon US PAF



Red White Mixture US PAF

ANNUALS / SUPER ELFIN XP



Super Elfin XP Series

50



XP Rose



XP Red White Mixture



XP Clear Mixture



XP Hot Mixture

XP = Precise, programmable, predictable!

Count on Super Elfin XP varieties for a tight bloom window, prolific flowering, exceptionally uniform habit and strong plant vigour.

The Super Elfin XP series delivers a 5 to 7-day flowering window across all colours so all plants ship at the same time and you always meet market dates.



XP Formula Mixture

IMPATIENS • • • • • Impatiens walleriana
Super Elfin® XP Series F1

Height: 8 to 10 in./20 to 25 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 3 to 4 weeks

Bring in the best habit, vigour and timing uniformity across a broad colour range with Super Elfin XP.
The broad colour range lets you mix and match any Super Elfin XP variety to achieve the most uniform impatiens crop.

ANNUALS / SUPER ELFIN







XP White

XP Pink

XP Coral







XP Salmon

XP Salmon Splash

XP Red





XP Rose

XP Violet Starburst

XP Blue Pearl



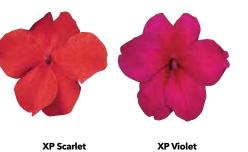


XP Lilac





XP Punch







Cha Cha Mixture



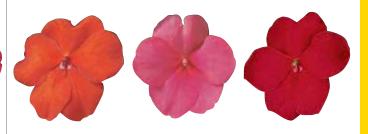
Seaside Mixture



Paradise Mixture



Mixture



Bright Orange

Lipstick

Ruby

Super Elfin® Series F1

Height: 8 to 10 in./20 to 25 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw Plug crop time: 4 to 5 weeks Transplant to finish: 3 to 4 weeks



ANNUALS / IMPREZA

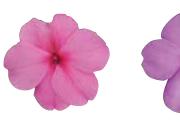






Impreza Rose





Pink





Cherry Splash





Rose



Wedgewood Mixture

IMPATIENS continued

Impreza[™] Series F₁

Height: 6 to 8 in./15 to 20 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 3 to 4 weeks

• One of the most grower and retailer-friendly series available offers a streamlined range of topselling colours.

• Reduced apical dominance, decreased internode length and good soil coverage produce easyto-manage plants with less upward stretch and potentially need fewer growth regulators - perfect for high-density programs.Long shelf life for extended sales

and reduced dump.

• All colours finish in a 5 to 7-day window for efficient shipping and flexibility, letting you adjust the colour assortment to meet seasonal/regional and market needs.

• Good garden fill - plants stay full and nice-looking all season with less lodging.

Select Mixture Blue Pearl, Rose, Salmon, Violet, White.



Salmon



Violet

White

ANNUALS / DAZZLER



Dazzler Baby Shower Mixture



Tutti Frutti Mixture

Dazzler[®] Series F1

Height: 9 to 11 in./23 to 28 cm Spread: 13 to 15 in./33 to 38 cm

Seed supplied as: Coated

Plug crop time: 4 to 5 weeks Transplant to finish: 3 to 4 weeks

Available in North America only.

The highest seed quality and extremely uniform growth with high yields make Dazzler perfect for mechanized sowing.
Healthy, uniform plants have controlled, manageable vigour; fill in quickly and are covered with

1.5-in./4-cm blooms.
Well-matched across the series, all colours come into bloom together and flower freely right up until frost.

• Well-suited to pack, 4-in./10-cm pot and basket programs.



Grower Select Mixture



Voodoo Too Mixture



Merlot Mixture



Mixture

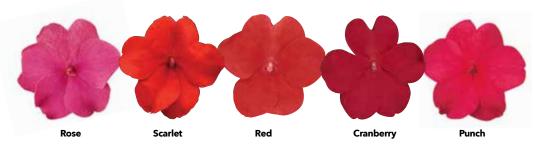


Moody Blues Mixture



Passionfruit Mixture





ANNUALS / DIVINE





Mixture



Salsa Mixture

Mystic Mixture

NEW GUINEA IMPATIENS •

Impatiens hawkeri

Divine[™] Series F1

Height: 10 to 14 in./25 to 36 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 6 to 7 weeks

• Divine is an affordable, highquality alternative to I. walleriana, with high resistance to Impatiens downy mildew, more single colours and mixes than other series, more vigour in planters and landscapes, and more consistent colour and seed quality.

• Grower-friendly series is perfect for shade landscape premium packs, 4-in./10-cm and quart pot programs.

• Range of production sizes offers flexible product assortment and pricing opportunities.

• Best-in-class seed quality delivers consistent, transplantable yields and quick crop time from plugs. • 6 to 7-week finishing of premium packs from a 288 plug makes Divine a good fit in bedding plant production schemes.

• Uniform, full and big-bloomed plants also make lush hanging baskets and containers with allseason colour.

• Foliage ranges from green to bronze-green.

Mystic Mixture Lavender, Violet, White.

Salsa Mixture Orange Bronze Leaf, Red, White.

Divine Series



Orange





Violet RHS Award of Garden Merit



Blue Pearl



Lavender





Orchid

Pink

Request your Product Information Guide for full culture details

54 **IMPATIENS**

ANNUALS / ENCHANTMENT



Tristar White Isotoma



Tristar Sky Blue Isotoma

IRESINE Iresine herbstii

Purple Lady

Height: 6 to 8 in./15 to 20 cm Spread: 36 to 48 in./91 to 122 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

 Ideal for mixed containers, "solo" hanging baskets or planters, and as a groundcover.

• Also well-suited to indoor plant programs.

Low and prostrate, spreading plant fills in nicely and cascades as branches get longer and heavier.
Can withstand more sun in humid areas like Florida.

ISOLEPSIS See **ColorGrass,** page 42.

Isotoma axillaris

Tristar Series

Height: 8 in./20 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 9 to 10 weeks

• Well-matched for earliness and uniformity, easy-to-grow Tristar works well in containers and gardens.

• Floriferous plants produce single blooms over finely cut foliage.



Gemini Pink Isotoma



Gemini Blue Isotoma

ISOTOMA (LAURENTIA) Isotoma hybrida

Gemini Series F1

Height: 8 in./20 cm Spread: 10 to 14 in./25 to 36 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 9 to 10 weeks

Vigorous, free-flowering series delivers excellent garden performance, yet keeps a controlled, mounded habit in containers.
Easy to grow - well-matched for earliness and uniformity.
Works well in premium pack and 3.5 to 4-in./9 to 10-cm programs.
Single, star-shaped blooms over finely cut foliage.

LEYCESTERIA • •

Jealousy

Height: 36 to 60 in./91 to 152 cm **Spread:** 18 to 20 in./46 to 51 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 7 to 8 weeks Transplant to finish: 6 to 7 weeks

USDA Hardiness Zones: 7a to 10b (0 to 35° F/-18 to 2° C minimum temperatures)

With its bright chartreuse foliage and bushy shape, Jealousy offers all-season interest - some blooms appear in July; cooler conditions bring maroon highlights to the foliage and flowers in the Summer; and purple fruit appears in Autumn.
Can be marketed as an annual, perennial or shrub.



Jealousy Leycesteria

COLORGRASS JUNCUS

Blue Arrows, see ColorGrass, page 45. Blue Dart, see ColorGrass, page

44.

Javelin, ColorGrass, page 45.

Starhead, see **ColorGrass**, page 43.

Twister, see ColorGrass, page 44. FUSEABLES PLUG & PLAY JUNCUS

Twisted Arrows, page 226. Twisted Dart, page 226.

KOELERIA See ColorGrass, page 42.

LAVANDULA See Perennials, page 148.

LIMONIUM (STATICE) QIS Series, See Cut Flowers,

page 185.

LINARIA Linaria hybrida

Enchantment F1

Height: 14 to 16 in./36 to 41 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• Fragrant blooms are produced continuously under cool conditions for an excellent Winter bedding plant.

Upright and well-branched.
Good for Spring and Autumn premium pack and 4-in./10-cm pot sales.

Use Jealousy leycesteria in this playful Plug & Play Combo!



NEW Plug & Play XXL Combo Feeling Frisky, see page 238.



Purple Lady Iresine



Enchantment Linaria

ANNUALS / FLORIDA



Florida Pink Lisianthus



Florida Pink Lisianthus



Florida Silver Lisianthus



Florida Blue Lisianthus



Sapphire Pendula



Fountain Crimson Lobelia

Eustoma grandiflorum

Florida Series F1

BEDDING LISIANTHUS

Height: 8 to 10 in./20 to 25 cm

Spread: 6 to 8 in./15 to 20 cm

Plug crop time: 8 to 10 weeks Transplant to finish: 12 to 16 weeks

• Our most heat-tolerant series for garden use; can also be used in

• Resists rosetting in both plug

• Single-plant in 4.5-in./12-cm or multi-plant in larger container.

stage and after transplanting.

CUT FLOWER LISIANTHUS

ABC Series, page 186.

Flare Series, page 185.

POTTED PLANT LISIANTHUS

Sapphire Series, page 174.

Seed supplied as: Pelleted

potted plant programs.

Lobelia



Lobelia



Fountain Lilac Lobelia

c Fountain Blue Lobelia



Fountain Rose Lobelia

LOBELIA Obelia erinus

TRAILING LOBELIA

Fountain Series

Height: 6 to 8 in./15 to 20 cm **Spread:** 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 10 to 12 weeks

• Profusely blooming plants have a cascading habit, making Fountain well-suited to hanging baskets and containers.

Sapphire Pendula

Height: 6 to 8 in./15 to 20 cm **Spread:** 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 10 to 12 weeks

• Cascading, bronze-leafed plants are covered with white-eyed, sapphire blue flowers.

ANNUALS / REGATTA







Regatta Sapphire

Regatta Series Height: 6 to 8 in./15 to 20 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Multi-Seed Pellets

Plug crop time: 4 to 5 weeks Transplant to finish: 8 to 10 weeks

• Flowers up to 4 weeks earlier than other trailing varieties, perfect for selling in bloom during Spring. • Vigorous plants flower profusely, cascading over the edge of hanging baskets, larger containers and colour bowls.



Regatta Lilac Splash US PVP 200600188 Regatta Lilac



Regatta Blue Splash Fleuroselect Quality Mark

COMPACT LOBELIA Height: 5 in./13 cm

Spread: 6 to 8 in./15 to 20 cm Plug crop time: 4 to 5 weeks

Transplant to finish: 8 to 9 weeks

Cambridge Blue

Seed supplied as: Raw

Cobalt Blue (Not pictured)

Seed supplied as: Raw, Multi-Seed Pellets

Crystal Palace

Seed supplied as: Raw, Multi-Seed Pellets

Mrs. Clibran

Seed supplied as: Raw

Rapid Blue (Not pictured)

Seed supplied as: Raw, Multi-Seed Pellets

Rosamond

Seed supplied as: Raw

String Of Pearls

Seed supplied as: Raw

White Lady

Seed supplied as: Raw, Multi-Seed Pellets



Regatta Sky Blue, Sapphire, Rose, Midnight Blue & Blue Splash Lobelia



Regatta Marine Blue







NOVELTY Regatta Rose Fleuroselect Quality Mark, * Novelty







White Lady



Rosamond







ANNUALS / RIVIERA



Riviera White Fleuroselect Novelty



Midnight Blue Fleuroselect Quality Mark, Fleuroselect Novelty



Blue Eyes





Lilac Rose Fleuroselect Quality Mark



Blue Splash





White Fleuroselect Novelty



Mixture

COMPACT LOBELIA continued

Riviera Series

Height: 5 in./13 cm Spread: 8 in./20 cm

Seed supplied as: Raw, Multi-Seed Pellets

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

• Extra early-flowering series blooms about 15 days earlier than standard varieties for reduced bench time and extended selling season.

• Vigorous, ball-shaped plants stay compact and mounded, making them perfect for beds, borders, containers and colour bowls.

PERENNIAL LOBELIA Starship Series, page 152. Vulcan Red Series, page 152.

LOBULARIA See Alyssum. LUZULA See ColorGrass, page 43.



ANNUALS / TAISHAN



Mixture

AFRICAN (AMERICAN) MARIGOLD Tagetes erecta

Taishan[®] Series F₁



Height: 10 to 12 in./25 to 30 cm Spread: 8 to 10 in./20 to 25 cm

Seed supplied as: Coated, De-tailed

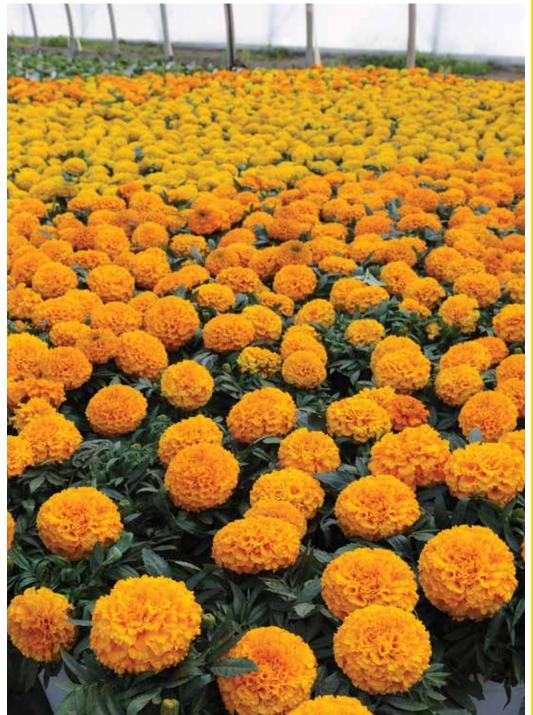
Plug crop time: 3 weeks Transplant to finish: Spring 4 to 6 weeks, Summer 7 to 8 weeks

• Best dwarf African marigold for landscapes - 20% shorter peduncles and 15% thicker stems assure less stretch and breakage. • Big, tightly petalled blooms on super-strong stems look terrific

at retail with less waste, better overhead watering tolerance and longer shelf life.

• Better branching with more aggressive side branching fills packs quickly and delivers a healthier look.

• Larger flowers hold their doubleness and shed water well. • Performance is so spectacular that Taishan was featured in landscapes at the 2008 Olympic Games in Beijing, China.



Taishan Series





Gold



Orange





Vanilla

Marvel Yellow

Vanilla F1

Height: 16 in./41 cm Spread: 10 in./25 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 weeks Transplant to finish: 7 to 8 weeks

- Fully double heads have tight centres that shed water and avoid turning brown longer.
- Each double, creamy white bloom is 2.5 to 3 in./6 to 8 cm across atop darker green foliage.
 Plants flower to match Marvel series timing - grow both to offer a full colour range.
 Well-suited to beds, borders and

 Well-suited to beds, borders and large mixed containers.





Marvel Orange



Marvel Gold

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Marvel Mixture

AFRICAN MARIGOLD continued

Marvel[™] Series F1

Height: 18 in./46 cm Spread: 10 in./25 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 weeks Transplant to finish: 7 to 8 weeks

Best intermediate-height African marigold on the market is ideal for professional landscaper programs.
Performance-tested durability; sturdy stems hold up in shipping and poor weather.

• Initiates flowering faster under short days, blooming as soon as 60 days from sowing.



ANNUALS / BONANZA

Create colourful Plug & Play Combos like this with Bonanza French marigolds!



Plug & Play Combo Cantina Heat, see page 233.



Mixture

FRENCH MARIGOLD Tagetes patula

DWARF CRESTED FRENCH MARIGOLD

Bonanza™ Series



Height: 10 to 12 in./25 to 30 cm **Spread:** 6 to 8 in./15 to 20 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 weeks Transplant to finish: 3 to 4 weeks

• Double crested flowers are the largest of any in this type - 2 to 3 in./5 to 8 cm across - in a wide range of pure, intense colours. • Fast to flower with a tight flowering window.

• Excellent garden performers under a wide range of conditions.



Flame

All-around performance

The market leader in French marigolds, Bonanza is the series to choose when you want to pump up your pack sales. This popular series delivers earliness, large flowers, uniformity and superior performance under a wide range of conditions.



Bonanza Serie



Yellow



Bolero US PVPAF



Harmony







Deep Orange Fleuroselect Novelty US PVPAF

Bee

ANNUALS / JANIE



Strawberry Blonde US PAF, PCT



Janie Deep Orange



Janie Bright Yellow



Gate Orange

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Fireball US PAF, PCT

DWARF CRESTED FRENCH MARIGOLD continued

Janie Series

Height: 8 to 10 in./20 to 25 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 weeks Transplant to finish: 3 to 4 weeks

• Good for warmer southern markets or for late-season sales in the North - very heat-tolerant with good garden vigour in warmer temperatures.

• Early and uniform in the pack with excellent shelf life.

• Compact plants hold crested, 2-in./5-cm flowers nicely above the foliage.



Flamenco US PVPAF

Fireball Strawberry Blonde

Fireball:

Height: 10 to 12 in./25 to 30 cm Spread: 6 to 8 in./15 to 20 cm Flower size: 2.5 in./6 cm

Strawberry Blonde: Height: 8 to 10 in./20 to 25 cm Spread: 8 to 10 in./20 to 25 cm Flower size: 2.25 in./6 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 weeks Transplant to finish: Premium packs, 3 to 4 weeks; Quarts or multi-plants in larger pots, 4 to 6 weeks

• Meet the "New World marigolds" -Fireball and companion Strawberry Blonde introduce germplasm never seen before in African or French marigolds that puts multicolour blooms on the same plant.

Completely new look for premium packs, pots and decorative containers.
In early Spring growing conditions, flowers age and change colour more slowly for maximum contrast. In warmer conditions, colour changes faster with less distinct contrast.

New Flamenco



Height: 10 to 12 in./25 to 30 cm **Spread:** 6 to 8 in./15 to 20 cm **Flower size:** 2 to 3 in./5 to 8 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 to 4 weeks Transplant to finish: 3 to 4 weeks (cell pack); 4 to 5 weeks (quart, 4 in./10 cm)

• With its yellow centre and redtipped petals, this novelty colour will look great in patio containers and gardens alike.

This standalone variety in the French marigold assortment calls out it's unique pattern, similar to Fireball and Strawberry Blonde.
Flamenco is in line with the Bonanza series for habit; flowering time is a few days later.

FULLY DOUBLE FRENCH MARIGOLD

Gate Orange

Height: 10 to 12 in./25 to 30 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Raw, De-tailed

Plug crop time: 3 weeks Transplant to finish: 4 to 5 weeks

• A good choice for commercial landscapes, featuring round, fully double, 3-in./8-cm flowers that look like small African margolds.

• Recommended as Summer pot annuals.



ANNUALS / HOT PAK



Orange US 9,326,467



Harmony US 9,326,464



Flame US 9,326,468

HEAT-TOLERANT EXTRA-DWARF CRESTED FRENCH MARIGOLD

Hot Pak[™] Series

PRO LANDSCAPE

Height: 6 to 7 in./15 to 18 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Coated, Detailed

Plug crop time: 3 weeks Transplant to finish: 3 to 4 weeks

 Extend the marigold season with the first French marigold series bred to bloom all Summer long, even in the highest temperatures and humidity - "developed in the heat for the heat."
 Includes all the key colours,

Includes all the key colours, perfectly genetically matched.
Stays compact and keeps on flowering without stretching or falling over.

falling over. • Produces 1.75 to 2-in./4.5 to 5-cm blooms.

• Ideal for pack programs and landscapes.



Hot Pak Mixture



Spry US 9,326,466



Gold US 9,320,212



Yellow US 9,326,465

ANNUALS / DURANGO



Outback Mixture



Gold



Yellow



Tangerine



Bee



Orange





Durango Mixture



Bolero



Flame

DWARF ANEMONE FRENCH MARIGOLD

Durango® Series



Height: 10 to 12 in./25 to 30 cm **Spread:** 6 to 8 in./15 to 20 cm

Seed supplied as: Coated, De-tailed

Plug crop time: 3 weeks Transplant to finish: 4 to 5 weeks

- Early-blooming, vigorous series sets the highest standard for anemone-type marigolds -excellent branching, strong stems, abundant blooms.
- Delivers a well-matched, 5 to
 7-day flowering window across all

Produces uniformly shaped, extra-large, 2 to 2.5-in./5 to 5.5-cm flowers atop bushy plants.

Outback Mixture Bolero, Red, Tangerine, Yellow.

MATRICARIA See Cut Flowers, page 188.



ANNUALS / KIRIGAMI





Poetry Mixture Nemesia





Poetry Blue

Nemesia

Poetry Deep Pink Nemesia NEMESIA 😐

Nemesia Nemesia foetans

Poetry Series F1

Height: 12 to 14 in./30 to 36 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 weeks Transplant to finish: 5 to 7 weeks

• Uniform, grower-friendly varieties in bright colours are ideal for Spring and Autumn premium pack and 4-in./10-cm pot programs. • Branches very well without pinching to produce bushy plants that fill out fast and full. • Winter flowering will occur in milder temperatures; will also flower lightly in warmer conditions in partial shade. NOTE: It is recommended to sow 4 pellets per cell.

NEMESIA 😑

Nemesia strumosa

Sundrops Mixture

Height: 10 in./25 cm Spread: 8 to 10 in./20 to 25 cm

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: 8 weeks

• Diverse colour range - gold, rose, red shades and white - in a wide array of patterns.

• Early-blooming, compact plants are ideal for small container growing.

 Useful as a cool-season crop to accompany Spring pansies.

• Timing fits into the cineraria/ calceolaria crop time.



Poetry Pink Nemesia



Sundrops Mixture Nemesia

NIEREMBERGIA 💛 Nierembergia caerulea

Purple Robe

Height: 8 in./20 cm Spread: 8 to 10 in./20 to 25 cm

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: Green packs 3 weeks, pots 8 to 10 weeks

• Hardy, early-blooming plants produce single, 1-in./2.5-cm flowers.

 Uniform, floriferous plants have strong garden vigour and long flowering season in beds, borders and hanging baskets. • Works well in garden beds and baskets.



Purple Robe Nierembergia



Mini Mint Ornamental Mint



Kirigami Ornamental Oregano US PVPAF

ORNAMENTAL MINT Mentha requienii

Mini Mint

Height: 1 to 2 in./3 to 5 cm Spread: 6 to 12 in./15 to 30 cm

Seed supplied as: Multi-Seed Pellets

Plug crop time: 2 to 3 weeks Transplant to finish: 3 to 4 weeks

USDA Hardiness Zones: 6a to 9b (-10 to 25°F/-23 to -4°C minimum temperatures)

 Easy, economical way to grow and sell this attractive, highly fragrant groundcover or small potted plant.

- Each multi-seed pellet contains 8 to 12 seeds - one plug in a 4-in./ 10-cm pot delivers a nice fast fill. Can be direct sown.
- Eliminates dividing, rooting cuttings and broadcasting seed. • Healthier, more uniform plants make great-looking 4-in./10-cm pots, mix components and garden specimens. Can also be marketed as a lawn replacement. NOTE: Leaves are non-toxic but do not have a palatable flavour.

ORNAMENTAL OREGANO Origanum x hybrida

Kirigami

Height: 8 to 10 in./20 to 25 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 9 to 11 weeks

• The perfect patio plant, this eyecatching, non-culinary oregano features large purple-green bracts, rose flowers and clear, light green foliage, with a delicious fragrance to attract pollinators.

• Dense, mounded, slightly trailing plant has a tighter and fuller habit than standard vegetative varieties, so it holds better in shipping and on the retail bench.

• Heat and drought tolerant, with an eye-catching display of texture from Spring until Autumn.

 Also perfect for hanging baskets, or in borders and rock gardens; can also be dried for use in dried flower arrangements.

• Higher light and cooler night temperatures accent the purple bract colour.

ANNUALS / COPPER PRINCE



Jade Princess



Jester

Purple Baron



Purple Majesty All-America Selections National Winner

ORNAMENTAL MILLET • • • • Pennisetum glaucum Unique accent plants are appealing

at retail and make a dramatic statement in mixed containers, gardens and landscapes.

Copper Prince F1

Height: 24 to 36 in./61 to 91 cm Spread: 18 to 24 in./46 to 61 cm

Seed supplied as: Raw

Plug crop time: 2 to 3 weeks Transplant to finish: 4 to 5 weeks (green)

 Exciting new colour joins the only ornamental millet seed assortment on the market. Copper Prince begins as a light caramel colour, deepening to copper as it sends up rosy, foxtail-type panicles.
 Rose-bronze panicles add late

Summer interest.Wide blades and excellent

tillering plus height and spread like Jade Princess make this variety perfect for large containers and landscapes.

Jade Princess F1

Height: 24 to 30 in./61 to 76 cm **Spread:** 18 to 24 in./46 to 61 cm

Seed supplied as: Raw

Plug crop time: 2 to 3 weeks Transplant to finish: 4 to 5 weeks (green)

• Intense chartreuse foliage and rich brown, pollenless panicles have a controlled, mounded shape that is more compact than others in

the assortment, so plants ship well.
Economical grower option - seed can be direct-sown into finish containers, plants are well-suited to pot sizes up to gallons, and the crop finishes fast.

• Great tillering, leading to a bushy plant habit that's perfect for large containers and landscapes. NOTE: Jade Princess requires warmer temperatures (above 60°F/16°C) than other millets to perform well.

Purple Majesty

Height: 48 to 60 in./122 to 152 cm Spread: 8 to 12 in./20 to 30 cm

Seed supplied as: Raw

Plug crop time: 2 to 3 weeks Transplant to finish: 4 to 5 weeks (green)

 Young plants are green. Stem and midrib of the foliage first turn purple after about 8 leaves have developed. Foliage turns dark purple when plants are moved from the greenhouse outside into full sun.
 Also makes a good cut flower.

Jester F1

Height: 36 to 48 in./91 to 122 cm **Spread:** 10 to 14 in./25 to 36 cm

Seed supplied as: Raw

Plug crop time: 2 to 3 weeks Transplant to finish: 4 to 5 weeks (green)

• Young leaves are chartreuse with a subtle burgundy overlay; mature foliage becomes dominantly burgundy especially in full sun. Plants end the season with nearly the same bronze-purple colour as Purple Majesty.

Jester flowers 7 to 10 days later than Purple Baron and Purple Majesty, and stays compact longer.
Best grown warm.

Purple Baron F1

Height: 30 to 40 in./76 to 102 cm Spread: 10 to 14 in./25 to 36 cm

Seed supplied as: Raw

Plug crop time: 2 to 3 weeks Transplant to finish: 4 to 5 weeks (green)

• Large, thick flower spikes on plants that are better-branched at the base than Purple Majesty.

• Slightly darker purple than Purple Majesty, with leaves that are shorter and wider for easier shipping, on a plant that is about two-thirds the mature height.

• Young plants are green; stem and midrib begin to develop purple colour as they mature.

• Shows best colour in full sun.

MYOSOTIS

See **Perennials**, page 153. **NEPETA**

See **Perennials**, page 153.

NEW GUINEA IMPATIENS See page 54.

ORNAMENTAL CORN See page 34.

ORNAMENTAL MINT See page 65.

ORNAMENTAL OREGANO See page 65.

ORNAMENTAL PEPPER See page 81. Also see Pottted Plants, page 162.



Copper Prince

ANNUALS / AKILA

OSTEOSPERMUM 😑 Osteospermum ecklonis

Akila® Series F1



Height: 10 to 14 in./25 to 36 cm Spread: 14 to 20 in./36 to 51 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: Spring 10 to 12 weeks, Autumn 7 to 9 weeks

• "Sow easy, so awesome": The most compact seed series matches or surpasses any vegetative series for easy, no-pinch production; terrific uniformity and top-selling colours.

• Delivers 5% higher germination than competitors for higher yields it's the best seed-grown osteo for both habit and seed quality.

• Excellent branching assures better pot fill and great bench-togarden performance. • Well-suited to mechanized production and high-density programs.

 Plants branch without pinching, all colours flower within a 7 to 10day window across the Akila series and no vernalisation is needed. • Full, well-branched plants are drought-tolerant once established. Daisy White Petals have a yellow back.

New Sunset Shades This new multicolour segregating mix includes popular colours like yellow, magicians and rose-reds, plus salmon, apricot and orange shades. A gorgeous mix of the colours of the setting sun.

Grand Canyon Mixture First multicolour segregating mix includes popular colours like yellow, magicians and rose-reds, as well as purple, lavender, creams and whites.



Sunset Shades



White Purple Eye



Daisy White All-America Selections National Winner, Fleuroselect Gold Medal



Lavender Shades



Akila Sunset Shades



Purple







Mixture



Matrix Series

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Make your life easier

Matrix is your best option for longer days and warmer growing. Uniformity of timing and plant habit simply can't be beat by any other varieties in the marketplace. Only Matrix has a tight bloom window in Autumn production that allows every colour to ship the same week.

EXTRA-LARGE FLOWERED PANSY

Matrix[®] Series F₁



Height: 8 in./20 cm Spread: 8 to 10 in./20 to 25 cm Flower size: 3.5 in./9 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 6 to 8 weeks, Autumn 4 to 6 weeks

• Matrix offers less handling, less waste and exceptional holding power for higher profitability.

• 7-day bloom window across all colours in Autumn production makes scheduling and growing easy.

• Extra-large flowers hold up to the heat and PGR stress in Summer/ Autumn production.

• Low-maintenance series gives pro landscapers the best choice for uniform colour striping, plus the most flowers per plant of any largeflowered pansy.

New Blue Blotch Improved Flower timing has been improved to better match the series. It also offers improved flower presentation.

New Midnight Glow This new colour addition to the series offers a yellow centre with a deep violet halo around it. Great for Autumn programs.

Solar Flare Blooms show more red in cool temperatures and more yellow in warmer temperatures.

New Yellow Purple Wing Yellow face with a purple cap is a perfect colour addition for Autumn programs.



ANNUALS / MATRIX





Lemon

Yellow







Primrose

True Blue

Purple

White Blotch

Yellow Blotch

Rose Blotch



Solar Flare



Red Blotch

Ocean



Beaconsfield



NEW Blue Blotch Improved



Deep Blue Blotch





Denim

NEW Midnight Glow



NEW Yellow Purple Wing



Sunrise



Rose Wing



Red Wing



Morpheus



Lavender Shades

ANNUALS / MATRIX





Blotch Mixture

Clear Mixture

Harvest Mixture

Autumn Blaze Mixture



Halloween Mixture

Citrus Mixture



Coastal Sunrise Mixture

Ocean Breeze Mixture



Mixture



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ANNUALS / MATRIX





Raspberry Sundae Mixture

Amber Mixture



Tanzanite Mixture

Tricolor Mixture



Amethyst Mixture

Ruby Mixture



Topaz and Garnet Mixture

Jewels Mixture

Topaz Mixture

Matrix mixtures

Autumn Blaze Mixture Red Blotch, Red Wing, Yellow, Yellow Blotch. Citrus Mixture Orange, Primrose, White, Yellow.

Coastal Sunrise Mixture Ocean, Rose Blotch, Sunrise.

Halloween Mixture Orange and Purple.

Harvest Mixture Yellow, Purple, Orange.

Ocean Breeze Mixture Blue Frost, Deep Blue Blotch, Ocean, White Blotch.

Raspberry Sundae Mixture Rose Wing, Rose, White Blotch.

Tricolor Mixture Lemon, True Blue, Purple.

Matrix Gemstone mixtures

Amber Mixture Orange, Yellow, Lemon.

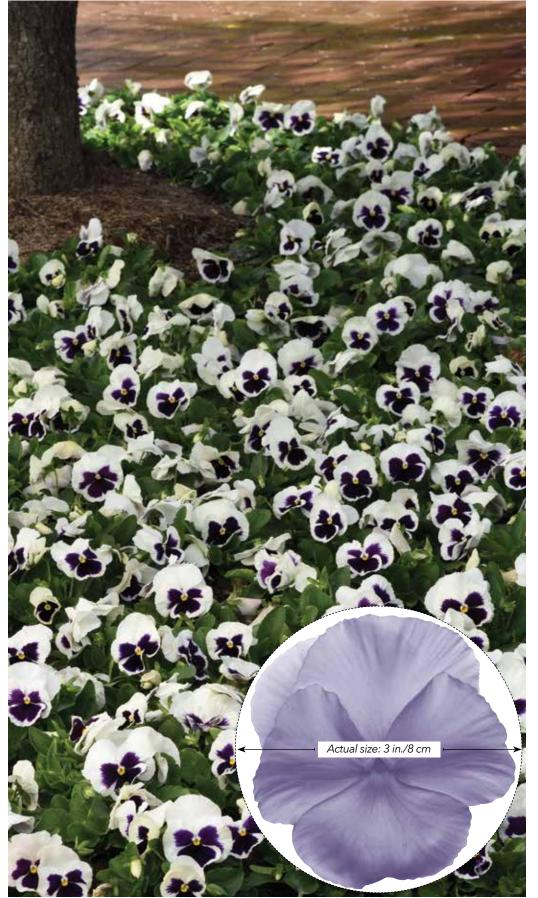
Amethyst Mixture Purple, Rose Blotch, Ocean, Deep Blue Blotch. Jewels Mixture Lemon, Light Blue, True Blue, Orange, Purple, Rose, Yellow.

Ruby Mixture Rose, Rose Wing, Rose Blotch.

Tanzanite Mixture Ocean, White Blotch, Purple.

Topaz and Garnet Mixture Orange, Red Blotch, Yellow.

ANNUALS / SPRING MATRIX



Spring Matrix White Blotch

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Your simplest solution for Spring

If you're using another pansy series and you're not happy with the uniformity or plant habit, try Spring Matrix. Spring Matrix is designed for cool-season, short-day growing conditions - or when you need a large bloom that maintains good presentation under cold, dark, wet Winter production.

LARGE-FLOWERED PANSY

Spring Matrix[™] Series F1



Height: 8 in./20 cm Spread: 8 to 10 in./20 to 25 cm Flower size: 3 in./8 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 6 to 7 weeks, Autumn 4 to 5 weeks

• Your best option for shorter days and cool growing - plants look better, last longer and have the tightest flowering window for less dump.

 Most uniform Spring-flowering series produces large blooms that maintain good presentation under cold, dark, wet Winter production.
 Superior branching without

• Superior branching without stretching puts more flowers on every plant.

Blue Wing Displays stronger blue colour under cool temperatures.

Ocean Can contain a small percentage of white with blotch. **Daffodil Mixture** Deep Orange,

Lemon, Yellow, White.

Pastel Mixture Pink Shades, Lemon, Blue.

Tricolor Mixture Blue, Lemon, Purple.

ANNUALS / SPRING MATRIX



ANNUALS / PROMISE



Promise Pure White



White Blotch



Pure Lemon







Yellow Blotch



Sunset



Yellow Red Wing









Red Blotch



Pure Silver Azure





Marina





N E W Blue **Blotch Improved**



True Blue



Blue White Whiskers



Moonlight



Beaconsfield



Antique Shades



Promise® Series F1

Height: 8 to 12 in./20 to 30 cm **Spread:** 8 to 12 in./20 to 30 cm **Flower size:** 2.75 in./7 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 6 to 7 weeks, Autumn 4 to 5 weeks

- Selected for European growing conditions, Promise is ideal for high-
- density, pot-tight Spring programs for the European market.
- Early, compact plants with large flowers will not extend beyond the edge of the pot in production.
- Excellent landscape vigour and floriferousness over a long period of time.
- Good for in-ground and container plantings.
- Wide range of classic and contemporary colours.

New Blue Blotch Improved Offers more reliable seed quality.

Moonlight White with blotch flowers have a purple cap; lower petals mature to mid to dark blue (YTT); appealing at all colour stages.

Also available: Outback Fire, Blotch Mixture and Mixture.



ANNUALS / FRIZZLE SIZZLE





Frizzle Sizzle Yellow



Frizzle Sizzle Yellow-Blue Swirl



Frizzle Sizzle Blue



Frizzle Sizzle Lemonade



Halloween Improved



Frizzle Sizzle Orange



Frizzle Sizzle Raspberry



Frizzle Sizzle Burgundy



Frizzle Sizzle Lemonberry

MEDIUM-FLOWERED PANSY Halloween Improved F1

Height: 6 to 8 in./15 to 20 cm Spread: 8 to 10 in./20 to 25 cm Flower size: 1.75 to 2 in./4 to 5 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Autumn 2 to 3 weeks

• Replaces Halloween II with less stretch under Autumn growing conditions and a larger flower size.

• Blooms are a unique, uniform pure black colour, on strong, short peduncles.

• Early, well-branched and floriferous plants are great for Autumn pots and packs, and overwinter with ease when planted in-ground.

NÕTE: In black pansies, a small percentage of white/yellow bicolour off-types is common. Halloween Improved has about 3% of these plants in the population.

RUFFLED PANSY

Frizzle Sizzle Series F1

Height: 6 to 8 in./15 to 20 cm Spread: 8 to 10 in./20 to 25 cm Flower size: 2.5 in./6 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 6 to 8 weeks, Autumn 4 to 6 weeks

 PanAmerican Seed is the only professional supplier of this unique frilly flower form - count on reliable seed supply.

• Great for cool-season Winter and early Spring end cap displays.

• Looks great in containers and "close-up" landscapes.

• Stronger ruffling occurs in cool conditions; Spring production is recommended.

New Lemonberry Earlier with less stretch, and it replaces Fizzy Lemonberry.

Mixture Also includes lavender shades (not available separately).

ANNUALS / PANOLA XP



Panola XP True Blue



XP Clear Mixture

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XP Blotch Mixture



XP Autumn Blaze Mixture



XP Mixture



XP Halloween Mixture



XP Citrus Mixture



XP Baby Boy Mixture



XP Blackberry Sundae Mixture

MULTIFLORA PANSY

Panola® XP Series F1



Height: 6 to 8 in./15 to 20 cm **Spread:** 8 to 10 in./20 to 25 cm **Flower size:** 2 to 2.25 in./5 to 6 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 4 to 5 weeks, Autumn 3 to 4 weeks

• Panola XP genetics come with a tight 5 to 7-day flowering window, very uniform habit and shorter peduncles across a broad array of colours.

• Both Panola XP and standard colours outperform standard medium-flowered varieties in all kinds of conditions.

• Exceptional overwintering ability makes Panola the best choice for overwintering guarantee pansy programs.

Free-flowering, well-branched and compact, the early-blooming plants maintain their garden height with less stretch in warm climates.
Plants produce an abundance of

 Plants produce an abundance of blooms for good flower show in the landscape.

• Landscaper-friendly clear colours are perfect for mixing custom blends.

Autumn Blaze Mixture XP Scarlet, XP Sunburst, XP Yellow.

Baby Boy Mixture XP Marina, XP True Blue, XP White.

Blackberry Sundae Mixture XP Purple Face, XP Purple, XP White.

Citrus Mixture XP Deep Orange, XP White, XP Yellow.

Halloween Mixture XP Deep Orange plus Halloween Improved.

ANNUALS / PANOLA







XP Deep Orange

XP White





XP Yellow

XP True Blue

XP Purple

XP Sunburst





XP Yellow Blotch

XP White Blotch



XP Beaconsfield



XP Marina



XP Deep Blue Blotch

XP Rose Picotee



XP Purple Face



XP Fire



Panola Silhouette Mixture





Panola Primrose

Panola Yellow & Purple



Panola Pink Shades



Panola Lilac Shades

Panola[®] Series F1

Height: 6 to 8 in./15 to 20 cm **Spread:** 8 to 10 in./20 to 25 cm Flower size: 2.25 in./6 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 4 to 5 weeks, Autumn 3 to 4 weeks Silhouette Mixture Primrose and Pink Shades plus shades of lilac.

PAPAVER (POPPY) See Perennials, page 153. PENSTEMON

See Perennials, page 154.

ANNUALS / LUCKY STAR



Lucky Star Series



L: Competing Violet variety R: Lucky Star Violet



Lucky Star Series

Stays in colour... Really!

Lucky Star is bred for the fastest follow-up blooming of any full colour series pentas on the market. Nonstop colour means plants look better getting off the truck and they just keep getting better in the store! Plus, this colour-rich series has a tight, compact habit that keeps them looking tidy with virtually no effort.

PENTAS Pentas lanceolata Lucky Star® Series F1

PRO LANDSCAPE

Height: 12 to 16 in./30 to 41 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Pelleted

Plug crop time: 6 to 7 weeks Transplant to finish: 7 to 8 weeks

• With the fastest follow-up blooming of any full colour series pentas on the market and a 1-week bloom window, Lucky Star maintains a consistent show of colour from retail through end-of-season.

• Follow-up blooms do not eclipse the prior flush, so plants stay compact, tight and ready for sale at retail with minimal work.

New Lipstick Matches the series with fast secondary/follow-up blooming and compact habit.

New White Improved Earlier to flower, with increased vigour and a better habit.

Mixture A heat-loving, vibrant colour mix.

ANNUALS / LUCKY STAR





Plug & Play Combo Star Bright, see page 234.



Lipstick



White Improved









Deep Pink

Dark Red

Pink



Lavender



Butterfly Series



Butterfly White



Butterfly Orchid



Butterfly Deep Rose

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Butterfly Light Lavender



Butterfly Deep Pink



Butterfly Red



Glitterati Purple Star US PAF

PENTAS continued

Butterfly[™] Series F1



Height: 12 to 22 in./30 to 56 cm Spread: 10 to 18 in./25 to 46 cm

Seed supplied as: Pelleted

Plug crop time: 6 to 8 weeks Transplant to finish: South 8 to 10 weeks, North 10 to 12 weeks

• Hybrid vigour provides better stress tolerance than open-pollinated varieties.

Gives pro landscapers and gardeners alike a mid-size, full-sun series that flourishes in high heat/ humidity and tolerates Summer rains well while still showing colour.
Can be sold as a late Spring to Summer item in cooler areas.
Large, star-shaped umbels - up to 3 in./8 cm across - attract butterflies and hummingbirds.

Glitterati[™] Purple Star F1

Height: 12 to 22 in./30 to 56 cm Spread: 10 to 18 in./25 to 46 cm

Seed supplied as: Pelleted

Plug crop time: 6 to 7 weeks Transplant to finish: 8 to 10 weeks

A sure winner! Combines a truly new look for pentas, while still offering the heat/humidity performance this class is known for.
Distinctive star pattern combines easily with other varieties, adding a unique component in Fourth of July and other warm/hot season combinations.

• Finishes fast for speed to market, and follow-up blooming keeps the plants in full colour and looking good all season.

PEROVSKIA See **Perennials**, page 155.

ANNUALS / SEDONA SUN

ORNAMENTAL PEPPER Capsicum annuum

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks

Midnight Fire

Height: 9 to 12 in./23 to 30 cm Spread: 14 to 16 in./36 to 41 cm

Transplant to finish: 7 to 13 weeks for Autumn finish

 Distinctive dark black foliage is accented by purple fruit which mature to bright red - this eye-catching combination is sure to result in fast sell-through. • Well-branched plants are perfect for stunning Autumn combination planters and large container programs at retail. Best in 6 and 8-in./15 and 20-cm pots, gallons and Mum Pals programs.

Sangria F1

Height: 10 to 12 in./25 to 30 cm Spread: 16 to 18 in./41 to 46 cm

Transplant to finish: 7 to 13 weeks for Autumn finish

• Child-safe, non-pungent fruit is great for public plantings indoors and out.

• Indeterminate plants always have both purple and red peppers for continuous, eye-catching displays. • Well-branched and somewhat spreading, the uniform, fullbodied plants are ideal for filling in landscapes and containers. • Best in 6 and 8-in./15 and 20-cm pots, gallons and Mum Pals programs.

Sedona Sun

Height: 9 to 12 in./23 to 30 cm Spread: 14 to 16 in./36 to 41 cm

Transplant to finish: 7 to 13 weeks for Autumn finish

• Here's another opportunity to expand Autumn sales - this time in your large pot and home gardener landscape programs.

 Masses of distinctive lemon yellow and carrot orange fruit put a brilliant, multicolour display on every plant.

 Indeterminate habit like Sangria, with similar timing.

• Best in 6 and 8-in./15 and

20-cm pots, gallons and Mum Pals programs. NOTE: Fruit is hot.

FOLIAGE ORNAMENTAL PEPPER

Black Pearl

Height: 14 to 18 in./35 to 45 cm; may grow to 3 ft./91 cm or more in warmer areas with longer growing seasons

Transplant to finish: 6 to 7 weeks for Autumn finish (no mature fruit)

• The first black-leafed ornamental pepper is ideal for landscapes and mixed containers.

• Bushy, upright, well-branched plants have greenish foliage when young that matures to glossy black with high light and heat.

• In the landscape, plants develop rounded, shiny black fruit that matures to dark red.

• Best in 6 and 8-in./15 and 20-cm pots, gallons and Mum Pals programs. NOTE: Fruit is hot.

Calico F1

Height: 10 to 12 in./25 to 30 cm Spread: 14 to 16 in./36 to 41 cm

Transplant to finish: 6 to 7 weeks for Autumn finish (no mature fruit)

• High-appeal, strongly variegated foliage of purple, cream and green. Compact, well-branched and rounded accent plants are uniform in size across the crop for easy production.

 Extremly heat-tolerant – great for landscaping and mixed containers. Best in 6 and 8-in./15 and 20-cm pots, gallons and Mum Pals programs. NOTE: Fruit is hot.

Purple Flash

Height: 13 to 15 in./33 to 38 cm Spread: 19 to 21 in./48 to 53 cm

Transplant to finish: 6 to 7 weeks for Autumn finish (no mature fruit)

 Striking colouration and interesting plant architecture enhance gardens and mixed containers through the toughest conditions, including heat.

 Layered, scaffolding habit creates an exotic look.

• Compact, mounded plants are uniform in size across the crop for easy production.

• Best in 6 and 8-in./15 and 20-cm pots, gallons and Mum Pals programs.

NOTE: Fruit is hot.

ADDITIONAL ORNAMENTAL PEPPERS See Potted Plants, page 162.



Midnight Fire







Calico



Purple Flash



Sangria US 7,393,995 and 7,696,416



Black Pearl All-America Selections National Winner, Fleuroselect Quality Mark, Fleuroselect Novelty US PVP 200500020



Dreams Burgundy

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Choose Dreams and Sophistica petunias to add a tropical feel to Fuseable Combos like this!



Fuseables Lime Coral, see page 224.

PETUNIA OPetunia x hybrida

GRANDIFLORA SINGLE PETUNIA

Dreams[™] Series F₁



Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 5 to 6 weeks

• Well-branched habit and plant structure assure a high-quality look and excellent performance.

• Consistently high seed quality and good performance in the presence of *Botrytis*.

Pink Vein Not available in North America.

Patriot Mixture Red, White, Midnight.

Waterfall Mixture Sky Blue, Midnight, White.

ANNUALS / DREAMS





Coral Morn



Rose



Midnight



Waterfall Mixture



Pink Vein



Rose Morn



Burgundy



Rose Picotee



Patriot Mixture



Appleblossom



Pink



Red



Red Picotee





Salmon



Neon Rose



Sky Blue













Burgundy Picotee

ANNUALS / DEBONAIR



Sophistica Lime Bicolor, Antique Shades & Lime Green



Sophistica Lime Green



Sophistica Twilight US 7,642,436; EU PAF



Sophistica Antique Shades US 7,642,436; EU PAF



Sophistica Lime Bicolor



Sophistica Blackberry US 7,642,436; EU PAF



Sophistica Blue Morn



Debonair Dusty Rose US 7,642,436; EU PAF



Debonair Lime Green US 7,642,436; EU PAF

The designer Debonair and Sophistica collections combine beautiful flowers in special one-ofa-kind colours with professional seed quality. These premium petunias can command a higher price point at retail and open the door to decorator opportunities.

• Plants are well-matched for timing for easier scheduling and shipping.

• Mounded, upright habit is ideal for premium pots and larger containers.

MULTIFLORA SINGLE PETUNIA **Debonair[™] Collection F1**

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Dusty Rose Flowers become lighter in higher light/warmer conditions.



Debonair Black Cherry US 7,642,436; EU PAF GRANDIFLORA SINGLE

PETUNIA

Sophistica[®] Collection F₁

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Blue Morn Blue margin with silverwhite throat; throat will be less noticeable in cooler/greenhouse production, and more noticeable outside and in warm, high-light conditions.

Lime Bicolor Consistent with traditional star patterns. In cool/ low light conditions, blooms show more rose; in warm/high light conditions, blooms show more lime.

Twilight Blooms have smoky mauve top and green underside.

ANNUALS / SUPERCASCADE



Peppermint Daddy

Use Dreams and Daddy petunias to add striking hues to combos like this!



Fuseables Pleasantly Blue, see page 224. GRANDIFLORA SINGLE PETUNIA

Daddy[®] Series F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

The best-selling veined grandifloras and the only full series of veined varieties.
Features 4-in./10-cm blooms and

dependable, high-quality pack habit.

Supercascade Series F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

• Huge, 4 to 5-in./10 to 13-cm flowers deliver great retail and garden impact.



Red Daddy



Sugar Daddy



Supercascade Pink



Supercascade Red



Supercascade White



Blue Daddy



Daddy Mixture



Supercascade Rose



Supercascade Blue



Pink Daddy



Orchid Daddy All-America Selections National Winner



Supercascade Burgundy



Supercascade Lilac



Supercascade Mixture

ANNUALS / EZ RIDER



Ez Rider Mixture



Ez Rider White



Ez Rider Deep Salmon



Ez Rider Red



Ez Rider Deep Pink



Ez Rider Rose







Grandiflora Ez Rider and multiflora Lo Rider put flexibility at your fingertips and cost savings in your pocket, thanks to their matched and manageable growth from bench to retail. These genetically shorter, more controlled plants need less PGRs and are perfect for high-density programs. The two series solve the seasonal, geographic and control challenges of traditional petunias - they're perfect for growing and selling high-density cell packs to "promo" hanging baskets.

- Up to half the amount of PGRs are needed - or none under some growing regimes.
- Suitable for cold growing.

• Tight bloom window lets you ship and sell all series colours at the same time.

• Better branching with improved airflow reduces the probability of disease, especially *Botrytis*.

• Available in the top-selling colours that make up 75% of petunia sales.

• Enhanced, longer garden performance in containers and gardens - plants hold together and don't lodge later in the season like traditional petunias can.

Ez Rider[®] Grandiflora Series F1

Height: 6 to 10 in./15 to 25 cm Spread: 8 to 12 in./20 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Deep Pink Colour is similar to Rose in low light; in higher light, colour is lighter than Rose.

Rose Colour is similar to Deep Pink in low light; in higher light, colour is deeper than Deep Pink.

Lo Rider™ Multiflora Series F1

Height: 7 to 10 in./18 to 25 cm Spread: 8 to 12 in./20 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Not available in North America.

Violet Times like Blue in cold production conditions and like Pink in Spring natural daylength.

Also available: Mixture



Lo Rider White



Lo Rider Violet

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Lo Rider Pink

Lo Rider Red



Lo Rider Rose



Lo Rider Blue

ANNUALS / PRETTY FLORA



Pretty Grand Flag Mixture

The Pretty collection needs fewer to no PGRs and is suitable for cold growing. Naturally better branching with shorter internodes keeps plants manageable longer. The controlled habit assures tidier baskets than traditional petunias plants hold together and don't lodge later in the season like standard petunias can. Better branching and flowers above the foliage minimize Botrytis risk. Offers a tight bloom window and longer performance in beds and landscapes.

Pretty Grand[™] Grandiflora Series F1

Height: 6 to 10 in./15 to 25 cm Spread: 8 to 12 in./20 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 7 weeks

Available in North America only. Flag Mixture Midnight, Red, White.

Pretty Flora™ Floribunda Series F1

Height: 7 to 10 in./18 to 25 cm Spread: 8 to 12 in./20 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 7 weeks

Available in North America only.

Pink Pearl Holds its soft, shimmery colour in high light/warm night conditions.

Flag Mixture Midnight, Red, White. Formula Mixture 7 to 9-day flowering window.



Pretty Grand Formula Mixture



Pretty Grand Red



Pretty Flora Formula Mixture



Pretty Flora Flag Mixture



Pretty Flora Pink Pearl



Pretty Grand Midnight



Pretty Grand



Pretty Grand

Rose

Pretty Flora Purple



Pretty Flora Red



Pretty Flora White



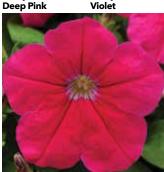


Pretty Grand White

Pretty Grand



Pretty Grand Violet



Pretty Flora Pink



Pretty Flora Rose



Pretty Flora Midnight

Pretty Flora

Coral

Summer



Mirage Red and White





Reflections Mixture

MULTIFLORA SINGLE PETUNIA **Mirage Series F1** Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm Seed supplied as: Raw, Pelleted Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

Not available for sale in North America.

• Delivers outstanding performance at every stage - seed quality, seedling vigour and plant habit.

• Very broad colour range was selected for performance across a wide range of conditions.

• Perfect balance of show at point of sale without sacrificing garden performance.

 Beautiful blooms make impressive displays in mass plantings and gardens all season until frost.

Pink Chiffon Holds its colour quality in high light/warm night locations. Tolerant of cold growing situations.

Reflections Mixture Contains veined colours.

ANNUALS / MIRAGE





Carpet Pink



True Blue

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MULTIFLORA SINGLE PETUNIA Carpet Series F1

Height: 10 to 12 in./25 to 30 cm Spread: 10 to 15 in./25 to 38 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

• Heat-tolerant Carpet petunias deliver incredible performance in

Provides a lush carpet of colour all season long.
Free-flowering with excellent branching and mid-size blooms.

Neptune Mixture True Blue, Blue, Sky Blue, Lilac, Blue Lace, White.

ANNUALS / CARPET



Rose Star



Pink



Bright Red



True Blue



Blue Star



Rose



Lilac







White





Sky Blue



Mixture





Velvet



Blue Lace



Neptune Mixture

ANNUALS / MADNESS



Madness Series



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Total Madness Mixture



Moonlight Madness Mixture



Waterfall Madness Mixture



Mixture

Just Madness

Mixture

Madness Merlot Mixture



Madness Old Glory Mixture



Madness® Series F1



Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Available in North America only.

• Home gardeners and pro landscapers across North America know they can count on fantastic flower power...a bounty of vibrant colours...and never-ending shows that last until first frost.

• Exceptional seed quality, plug performance and uniformity across all colours from sow to finish.Well-branched, floriferous plants

are covered with an abundance of 3-in./8-cm blooms.

Clear Madness Mixture Contains all clear colours except Yellow and Pink.

Just Madness Mixture Six veined colours.

Madness Merlot Mixture Carmine, Lavender, Pink, White.

Moonlight Madness Mixture Lavender Glow, Yellow, Lilac.

Madness Old Glory Mixture Red, White, Midnight.

Total Madness Mixture Bright mix of 14 colours.

Waterfall Mixture Lilac, Magenta, Royal, White.





Orchid

Plum Crazy

Burgundy Star

Royal

Midnight

ANNUALS / DUO



Double Cascade Mixture



Double Cascade Orchid Mist



Duo Mixture



Duo Rose



Duo Blue

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Blue

scade Double Cascade Burgundy



Double Cascade Valentine



Duo Red And White



Duo Salmon



Duo Burgundy



Bonanza Mixture



Double Cascade Pink



Duo Rose And White



Duo Satin Pink



Duo Lavender

DOUBLE PETUNIA • Petunia x hybrida

FLORIBUNDA DOUBLE PETUNIA

Bonanza Mixture F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

• Combines the beauty of double flowers and prolific flowering of multifloras.

- Formula blend has 2 to 2.5-in./ 5 to 6-cm blooms on mounded plants.
- A favourite among home gardeners.

MULTIFLORA DOUBLE PETUNIA **Duo Series F1**

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Not available for sale in North America.

• Excellent seed quality, germination and young plant performance.

Compact series produces masses of double, 2 to 2.25-in./5 to 5.5-cm flowers on well-branched plants.
Superb for use in large mixed containers, baskets and beds.

GRANDIFLORA DOUBLE PETUNIA

Double Cascade Series F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

- Huge, 3 to 3.5-in./8 to 9-cm, double flowers resemble
- carnations. • Outstanding habit and good
- branching.
- Excellent program for late Spring sales.
- Well-suited to larger containers, mixed combination planters and beds.

New Valentine Beautiful red blooms can have splashes of white appear on some of the tips. The unique double flowers feature a delicate fringe. Smaller flowers than the rest of the series.

ANNUALS / PIROUETTE

Glorious Mixture F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• Bright mix of solids and bicolours.

Pirouette Series F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• Eye-catching, very double, fringed flowers in distinctive bicolour picotee patterns.



Pirouette Red



Glorious Mixture



Pirouette Purple All-America Selections National Winner



Pirouette Rose

ANNUALS / DOUBLE MADNESS















Burgundy

Red And White



Mixture



Lavender

FLORIBUNDA DOUBLE PETUNIA Double Madness[™] Series F1

Height: 10 to 15 in./25 to 38 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

Available in North America only.

• Offers the same superior performance as the original Madness series. • Compact, floriferous plants deliver masses of 2 to 2.25-in./5 to 5.5-cm

- flowers all Summer.
- Well-suited to large containers, mixed combinations and beds.



Blue

96 PETUNIA Request your Product Information Guide for full culture details



Use 21st Century phlox in dreamy Plug & Play Combos like this!



Plug & Play Combo Lemon Dream, see page 230.

PHLOX 😑 Phlox drummondii

21st Century Series F1

Height: 10 in./25 cm Spread: 10 in./25 cm

Seed supplied as: Primed

Plug crop time: 4 to 5 weeks Transplant to finish: 6 weeks

• The world's first F1 phlox delivers outstanding showiness, hybrid germination and vigour.Daylength-neutral plants finish

fast and uniformly across all colours.

 Vigorous lateral branching makes full, mounded plants, with strong flower power from Spring until frost.

• Outstanding bedding plant also works well in containers.

Patriot Mixture Crimson, Blue, White.



Scarlet









Pink



White





Mixture

ANNUALS / PROMISE



Promise Rose Fleuroselect Quality Mark



Ethnie Light Blue



Ethnie White



Ethnie Scarlet

Ethnie Dark Rose



Ethnie Salmon



Ethnie Purple Violet



Ethnie Mixture



Promise Peach Fleuroselect Quality Mark, Fleuroselect Novelty



Promise Lilac

PHLOX continued

Ethnie Series

Height: 8 in./20 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• Genetically compact series is an excellent choice for pot and pack programs, delivering uniform habit and earliness.

Crop time is just 10 to 12 weeks.
 No PGRs are needed in production.



Promise White Fleuroselect Quality Mark



Promise Mixture

Promise Series

Height: 8 in./20 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 7 to 8 weeks

- Very floriferous plants feature double and semi-double flowers held well above the foliage.
- Strong outdoor vigour assures
- long-lasting garden performance.
- Well-suited to large pack and pot production.



ANNUALS / SILVER CREST



Promise Scarlet

Promise Pink



Grammy Pink & White Fleuroselect Gold Medal

Grammy Pink & White F1

Height: 8 to 10 in./20 to 25 cm Spread: 10 in./25 cm

Seed supplied as: Primed

Plug crop time: 4 to 5 weeks Transplant to finish: 7 to 8 weeks

- The most compact F1 phlox.
- Excellent uniformity makes it very manageable in packs and pots.

 Vigorous, free-flowering plants produce one-of-a-kind bicolour blooms all season in mixed containers, gardens and planters.

PLECTRANTHUS • • • Plectranthus argentatus

Silver Crest

Height: 8 to 10 in./20 to 25 cm Spread: 18 to 24 in./46 to 61 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 4 to 6 weeks

• Compact accent plant is an easy and economical choice for mixed containers, baskets and landscapes.

Tolerant of heat and water stress.
Silvery green, fuzzy foliage and small, blush white flowers on wellbranched, trailing plants.





Silver Shield Plectranthus



Heritage Crème Primula

Silver Shield

Height: 24 to 30 in./61 to 76 cm **Spread:** 24 to 30 in./61 to 76 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 9 weeks

• Robust, vigorous and stresstolerant accent plants have a bushy, upright habit, excellent in landscapes and combination planters.

 Economical, easy-to-produce seed-grown plants offer better branching than vegetative varieties, with no pinching needed.

POPPY

See **Papaver** in **Perennials**, page 153.

PRIMULA 💛 🕽

Heritage Crème F1

Height: 5 to 6 in./13 to 15 cm **Spread:** 5 to 6 in./13 to 15 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 15 to 17 weeks

• Unique breeding delivers a natural "English Primrose" look in a professional-quality product.

• Long-flowering, mid-size blooms and deep green foliage are produced on compact, mounded plants.

• Programmable crop can be grown pot-tight in 3.5-in./9-cm programs.

ANNUALS / OPTIC



Optic Gold



Blue



Cream





Rose



Mixture





Scarlet Flame



Copper



Scarlet



White



PRIMULA continued

Optic[™] Series F1

Height: 4 to 6 in./10 to 15 cm **Spread:** 6 to 8 in./15 to 20 cm

Seed supplied as: Primed

Plug crop time: 5 to 6 weeks Transplant to finish: Autumn 13 to 15 weeks

• Full-flowering varieties with tidy green foliage provide bright and rich, non-fading colour in Autumn and Winter gardens and planters.

• Compact plants require less PGRs, and the series needs less cold to initiate flowers, making for easier programming.

• Superior seed quality results in a very uniform plant.

Blue One of the most compact in the series, featuring small, ruffled leaves.

Copper Shades of copper spark up Autumn mixes.

Cream One of the fastest to flower in the series.

New Gold The most vigorous plant in the series.

Rose One of the earliest to flower in the series, and one of the best varieties due to its uniformity and great habit.

Scarlet One of the latest to flower in the series, with a more compact habit.

New Scarlet Flame More stable scarlet flame bicolour pattern than competing varieties. Its large yellow flame brightens up any mix.

White Presents an attractive eye in the bloom centre. Flowers can be slightly ruffled.

Yellow Attractive eye in the centre of the bloom.

Mixture Contains all of the important colours and some novelties, for a good, balanced, uniform mix with a short flowering window.

ANNUALS / PRIMLET



Primlet Mixture

Primlet® Series

Height: 5 to 6 in./13 to 15 cm Spread: 5 to 7 in./13 to 18 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 15 to 17 weeks

• Clusters of scented blooms look like mini-rose bouquets.

Works well in solo planters and small mixed combinations for late Winter and early Spring programs.
Extended shelf life, long-lasting

as an indoor house plant.Requires no special culture on the bench.

Purple Most vigorous of the series.



Purple



Rose With Edge



White



Scarlet Red Shades



Golden Shades



Rose



Lemon Shades



Pink Shades



Sunrise



Yellow

ANNUALS / HAPPY HOUR



Happy Hour Series



Coconut



Banana



Peppermint



Pink Passion Mixture



Lemon



Rosita



Deep Red



Mixture



Happy Hour (L) blooms earlier under shorter days than competing variety (R).



Orange



Fuchsia



Tropical Mixture

PORTULACA 😑 Portulaca grandiflora

Happy Hour[™] Series F₁

Height: 8 to 10 in./20 to 25 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Multi-Seed Pellets

Plug crop time: 4 to 5 weeks Transplant to finish: 5 weeks

• Sow up to 2 weeks earlier than competing bush-type varieties, as Happy Hour is bred to bloom under shorter days than other portulacas – 10.5 hours.

• Tidy, mounded plants are easier to pack and ship, with less breakage than prostrate types.Well-branched plants flower

uniformly across the series.

• Extra-appealing at retail, with fuller habit and large, double blooms in vivid colours.

Pink Passion Mixture Rosita, Peppermint, Fuchsia. Tropical Mixture Deep Red,

Orange, Banana.



ANNUALS / HAPPY TRAILS

Peppermint





White



Yellow





Fuchsia







TRAILING PORTULACA *O Portulaca grandiflora*

Happy Trails[™] Series F1

Height: 6 to 9 in./15 to 23 cm Spread: 14 to 18 in./36 to 46 cm

Seed supplied as: Raw, Multi-Seed Pellets

Plug crop time: 4 to 5 weeks Transplant to finish: 6 weeks

Trailing portulaca series has the shortest photoperiod on the market today - 10 hours.
Sow up to 2 weeks earlier than any other trailing portulaca to meet market demands.
Most vivid colour assortment available including integer Doop

available, including intense Deep Red and unique Rosita. • Delivers brilliant colours and fantastic spread in the garden.



Rosita



Mixture



ANNUALS / TOUCAN



Toucan Fuchsia Purslane



Southern Star White Ruellia

PURSLANE Ortulaca oleracea

Toucan Series

Height: 3 to 4 in./8 to 10 cm **Spread:** 14 to 16 in./36 to 41 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• Economical, reliable and programmable seed-grown purslanes for mass-market baskets and containers.

• Requires little or no PGRs, no pinching.

• Colourful buds develop into 2-in./5-cm blooms.

Heat loving and drought tolerant.
 NOTE: We recommend to sow 4 seeds per cell.

PERENNIAL RUDBECKIA See page 154.



Southern Star Blue Ruellia

RUELLIA O Ruellia brittoniana

Southern Star Series

Height: 10 to 12 in./25 to 30 cm Spread: 16 to 18 in./41 to 46 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: Spring 10 weeks, Summer 8 weeks

• The first dwarf ruellia from seed is easy to program and produces clean green foliage.

Low-maintenance; tolerates both

wet and dry conditions. • Great for southern perennial programs - hardy to Zone 8 (10°F/ -12°C minimum temperature).

• Can be used as an in-ground or container annual in other regions, but not recommended for the far North.



Toucan Scarlet Shades Purslane



Southern Star Pink Ruellia

SCUTELLARIA • Scuttellaria javanica

Veranda

Height: 10 in./25 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 6 weeks Transplant to finish: 7 to 10 weeks

Heat-tolerant plants feature bicolour blue-purple blooms over glossy, dark green foliage.
Similar to ornamental pepper culture and crop timing, Veranda is best grown warm and bright in production, but prefers shady locations in the garden.



Veranda Scutellaria

ANNUALS / BIG BLUE

The name says it all!

Big Blue salvia is exactly that - a vigorous flowering annual in a salesinspiring clear blue colour. The first of its type from seed, this big beauty will pump up mid-Summer sales in large containers. Super easy and super showy for both landscapers and home gardeners for their back-of-border plantings, sending out blue spires continuously from July to first frost with little to no extra care.

SALVIA INTERSPECIFIC *Salvia longispicata x farinacea*

Height: 24 to 36 in./61 to 91 cm **Spread:** 18 to 20 in./46 to 51 cm

Plug crop time (288 tray): 4 weeks Transplant to finish: 8 to 13 weeks, depending on light, heat and daylength conditions

• Great performer in heat and low-

• Low-maintenance plant does not

• Hummingbirds, bees, butterflies and more flock to Big Blue in the

• At its best in full sun, but will tolerate dappled shade or partial

Seed supplied as: Raw

water conditions.

garden.

sun.

need deadheading.

Big Blue

<image>

Big Blue US PVP 201700218



Big Blue US PVP 201700218

ANNUALS / LIGHTHOUSE



Lighthouse Purple Fleuroselect Novelty



Lighthouse Purple and Red



Flare



Lighthouse Red



Red Hot Sally II

SALVIA O Salvia splendens

Lighthouse Series

Height: 24 in./61 cm Spread: 10 in./25 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

- Tall, bushy plants display longlasting colour.
- Heat tolerant and ideal for lowmaintenance landscaping use.
- Also good in large patio containers.

Flare

Height: 14 in./36 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

• Sets the standard for taller salvia, producing a profusion of bright red spikes that contrast well with dark green foliage.

Red Hot Sally II



Height: 10 to 12 in./25 to 30 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

Available in North America only.

Stands out all season in landscapes, gardens, planters and mixed containers.
Flower spikes are short and full for a dramatic show of colour.
High seed quality, superior uniformity and excellent heat tolerance.

ANNUALS / VISTA



Vista Mixture



Vista Salmon

Scarlet King (Not pictured)

Height: 11 in./28 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 6 weeks Transplant to finish: 4 to 5 weeks

• Excellent bright colour at finish.



Vista Rose

Vista[™] Series

ω PRO LANDSCAPE PERFORMER

Height: 10 to 12 in./25 to 30 cm **Spread:** 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

Dense spikes and dark green foliage hold their colour all season.
Well-matched in heat tolerance, habit and earliness.
With a 5 to 7-day flowering window across the series in the greenhouse, Vista can finish 2 to 5 days after other commercial series depending on light conditions, but has better outdoor performance.





Vista Red

PERENNIAL SALVIA New Dimension Series, page 156. Patio Series, page 155. Salvatore Blue, page 156. SAXIFRAGA See Perennials, page 157.

SCABIOSA See Perennials, page 157.

SILENE See **Perennials**, page 157.



Vista Red And White



Vista Lavender



Vista Purple

ANNUALS / SNAPSHOT



Snapshot Burgundy Bicolor



Red Bicolor



Burgundy Bicolor





108



Pink



Coral Bicolor



Purple

Orange



Burgundy



Merlot Mixture

SNAPDRAGON 😑 Antirrhinum majus

DWARF GARDEN SNAPDRAGON

Snapshot[™] Series F1



Height: 6 to 10 in./15 to 25 cm **Spread:** 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 6 weeks

• Delivers a perfect balance of pack performance and landscape success.

Bushy, compact plants are topped by closely spaced, full flower spikes.
Uniform flowering, with a 7 to 10-day window for Spring and Autumn sales in packs and small pots.

Sunset Retains its bright yellow colour in cool environments better than competing varieties.

Merlot Mixture White, Plumblossom, Burgundy.

Also available: Mixture



White



Red



Sunset



ANNUALS / SOLSTICE

GARDEN/CUT FLOWER **SNAPDRAGON**

Rocket Series F1

Height: 30 to 36 in./76 to 91 cm Spread: 16 to 18 in./41 to 46 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 13 to 16 weeks as a cut or garden flower

• Vigorous, heat-tolerant plants reach a uniform height and are topped by excellent-quality, closely set blooms.

• Flowers well under long days.

• Useful as both a landscape series and as a garden cut flower. • Suitable for commercial

greenhouse or field-grown cut flower production.

• Group 3-4 flowering snapdragon.

GARDEN SNAPDRAGON

Solstice[™] Series F1

Height: 16 to 20 in./41 to 51 cm Spread: 10 to 14 in./25 to 36 cm

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish in gallon containers:

Northern Hemisphere: October to early January sowing, 10 to 11 weeks; September and mid-January sowing, 5 to 7 weeks Southern Hemisphere: April to early July sowing, 10 to 11 weeks; March and mid-July sowing, 5 to 7 weeks

• Flowers earlier under shorter days than other intermediate varieties, making it ideal for Winter bedding where climate permits. • "Knee-high" height - great for landscapes and cut flower gardens. • Performs best with high light and cool nights (45 to 55°F/7 to 13°C). Group 1 Winter-flowering

snapdragon.

Red Yellow bee.

White Yellow bee; flowers have a slight pink blush most noticeable in buds.

Yellow May have pink buds and blush pink in lower light.

CUT FLOWER SNAPDRAGON

Cool Series, page 196. **Early Potomac Series**, page 194.

Maryland Series, page 192. Monaco Series, page 193. Potomac Series, page 194. Purple Twist, page 196. Red Delilah, page 196.



ctions All-America Sele National Winner



Rocket Lemon Rocket Golden All-Ameri Selections National Winner

Solstice Orange Tricolor

Solstice Yellow

Solstice Red



Rocket Cherry



Solstice White



Solstice Purple



Solstice Mixture



Rocket Mixture



Rocket Bronze All-America Selections National Winner



Solstice Pink

Solstice Rose

Rocket Rose

Shades All-America Selections National Winner



All-Ameri Selections National Winner



Solstice Lavender



Solstice Burgundy



PanAmerican Seed.







ANNUALS / HOT CAKES



Hot Cakes White Stock



Hot Cakes Hot Rose Stock



Hot Cakes Pink Stock



Hot Cakes Purple Stock



Hot Cakes Mixture Stock



Vintage White Stock



Vintage Yellow Stock



Vintage Copper Stock



Vintage Lavender Stock



Vintage Red Stock



Vintage Burgundy Stock



Peek-A-Boo Spilanthes



Vintage Mixture Stock

SPILANTHES 😑 Acmella oleracea

Peek-A-Boo

Height: 12 to 15 in./30 to 38 cm Spread: 24 to 30 in./61 to 76 cm

Seed supplied as: Coated

Plug crop time: 4 to 5 weeks Transplant to finish: 7 to 8 weeks

• Unique accent plants show off intriguing, olive-shaped, 1-in./ 2.5-cm, golden yellow flowers with deep burgundy-red eyes on the long, pendulous stems. • Foliage takes on a bronze-green tone in full sun.

STATICE See Limonium.

STIPA See ColorGrass, page 44.

STOCK • Matthiola incana

SELECTABLE BEDDING STOCK

Hot Cakes Series

Height: 10 to 16 in./25 to 41 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: 5 to 7 weeks

• Easy-to-select, fully double plugs produce more attractive plants than comparable grey-leaf, nonselectable types that can show up to 50% singles.

• Very well-branched, dwarf plants with fragrant, bright blooms deliver outstanding performance in landscapes and garden beds.

BEDDING STOCK

Vintage Series

Height: 15 to 20 in./38 to 51 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: 7 to 8 weeks

- Dwarf series blooms up to 1 week faster, with better branching than comparable varieties.
- Non-selectable Vintage produces over 55% double flowers.
- Sturdy, well-branched plants are excellent oudoor performers.
- Prefers cool growing conditions; no vernalisation needed.

CUT FLOWER STOCK (MATTHIOLA)

Aida Series, page 188.

Column Stock, page 189.

Figaro Series, page 188.

Katz Series, page 191.

Katz Hi Double White page 190.

Mathilda Series, page 188.

Opera Series, page 188.

SUNFLOWER See Potted Plants, page 175 and Cut Flowers, page 197.



Vintage Rose Stock

ANNUALS / SUSIE







Susie Orange With Eye Thunbergia





Susie Mixture Thunbergia

TALINUM 😑 Talinum paniculatum

Limón

Height: 28 to 32 in./71 to 81 cm Spread: 16 to 18 in./41 to 46 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: Foliage 4 to 5

weeks; add 2 weeks to flower

• Mounded, bright lime-green foliage with airy inflorescences covered in tiny rose-pink flowers. • Handles stress well, including

heat and drought. When exposed to stressful conditions, the foliage shows off an even more vibrant chartreuse

colour. • Ideal for containers, hanging baskets and in-ground plantings.

• Also works well as a fresh or dried cut flower.

Verde 🌗 Height: 32 in./81 cm Spread: 24 in./61 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: Foliage 4 to 5 weeks; add 2 weeks to flower

• Dark green-leafed companion to Limón has small flowers that open hot pink and then form orange berries that ripen to dark red. • Flexible flower spikes make it easy to grow and ship. • Durable accent plant handles heat and stress well, including both low water and soggy conditions.

 Excellent for mixed containers; also a long-lasting landscape option.

TANACETUM See Matricaria.

THUNBERGIA 😑 Thunbergia alata

Susie[™] Series

Height: 72 to 96 in./183 to 244 cm Seed supplied as: Raw

Vine length: 6 to 8 ft./1.8 to 2 m

Plug crop time: 4 to 5 weeks Transplant to finish: 4 to 5 weeks

- Distinctive flowering vine offers 3 clear and 3 "black-eyed" choices, plus a formula mix.
- Can "pop" into flower in as little as 6 weeks.
- Excellent in hanging baskets or
- window boxes. Good for colour packet and mail
- order markets.



Limón Talinum



Verde Talinum

ANNUALS / KAUAI



Kauai Deep Blue Torenia



Kauai White Torenia



Kauai Magenta Torenia



Kauai Deep Blue Torenia



Kauai Lemon Drop Torenia



Kauai Burgundy Torenia



Kauai Mixture Torenia



Kauai Rose Torenia



Kauai Blue & White Torenia



Golden Dawn Thymophylla

TORENIA •••

Kauai[™] Series

Height: 8 in./20 cm Spread: 8 in./20 cm

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 5 to 7 weeks

• Compact series offers the fullest complement of the most vivid colours.

• Easy to schedule with a tight, 7 to 9-day flowering window.

• Crop management is easier and more cost-effective with this compact torenia.

• Superior performance in extreme heat and humidity.

• Brings an exotic look to small gardens, mixed combos and colour bowls; also suited to indoor containers.

• Includes unique colours Lemon Drop and Magenta.

THYMOPHYLLA 😑

Thymophylla tenuiloba

Golden Dawn

Height: 6 in./15 cm Spread: 12 in./30 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 9 to 12 weeks

Long-flowering, spreading plant is covered with daisylike, golden yellow flowers on fine, ferny foliage.
Heat and humidity-lover is an excellent performer in hanging baskets, patio planters and garden beds.

TRACHELIUM See Cut Flowers, page 198.

VERBASCUM See Perennials, page 157.

ANNUALS / QUARTZ XP

VERBENA O Verbena x hybrida

Quartz XP Series

Height: 8 to 10 in./20 to 25 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw, Primed

Plug crop time: 4 weeks **Transplant to finish:** Spring 6 to 8 weeks, Summer 5 to 7 weeks

 Quartz XP verbenas are more uniform with overall longer garden performance than competing varieties.

• Delivers a tight, 7-day flowering window, earlier and significantly better branching, and reduced internode length.

 Strong seed quality, high germination and great young plant vigour assure superior performance in packs and 4-in./ 10-cm pots.

• Slightly spreading, mounded plants make brilliant beds and trail over the edges of mixed containers.

New XP Bordeaux Fits the series for habit and timing, and holds its colour better in high light landscapes.

XP Purple Largest florets and slightly more vigour than others in the series.

XP Violet With Eye Violet-blue flowers are similar to Burgundy With Eye, but more blue-toned.

XP Merlot Mixture Strong burgundy, red and purple shades. XP Waterfall Mixture Segregating mix of white, blue, violet-blue and purple.

Quartz Blue

Height: 10 to 12 in./25 to 30 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Raw, Primed

Plug crop time: 5 weeks Transplant to finish: Spring 7 to 9 weeks, Summer 6 to 7 weeks

• Approximately 2 weeks later to flower than Quartz XP varieties.

PERENNIAL VERBENA Buenos Aires, page 157. Santos Purple, page 157.

VERONICA See Perennials, page 157.



Quartz XP White



XP Bordeaux



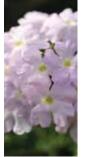
XP Purple Fleuroselect Novelty



XP Waterfall Mixture



Quartz Blue



XP Silver



XP Pink

XP Burgundy With Eye With Eye



XP Mixture



XP Red With Eye



XP Scarlet



XP Merlot Mixture

Use Quartz XP verbena in dazzling Plug & Play Combos like this!



Plug & Play Combo Razzle Dazzle, see page 231.

ANNUALS / TITAN



Titan Pure White



Titan (left) surpasses even Pacifica XP in bloom size.



Romance Mixture



Bubble Gum Mixture



Mixture



Clear Mixture



Summer Breeze Mixture

Robust and ready for anything Mother Nature sends!

Titan is up to 2 weeks faster to flower than open-pollinated vincas, with superior branching and big flowers in all the topselling colours. The most uniform F1 vinca series on the market shows off flowers that are up to 50% larger than O.P. types in cooler temperatures.

 VINCA
 O

 Catharanthus roseus
 F1

 F1
 UPRIGHT VINCA

 Titan™ Series F1



Height: 14 to 16 in./36 to 41 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 3 to 4 weeks

• Upgrade your vinca for the best germination and the most reliable supply available on the market!

• More stress-tolerant due to hybrid vigour - tolerates heat and drought and can withstand cooler and wetter conditions compared to O.P. types.

• Perfect for landscapes and containers of all types.

• Well-suited to packs, 4-in./10-cm and 6-in./15-cm pots.

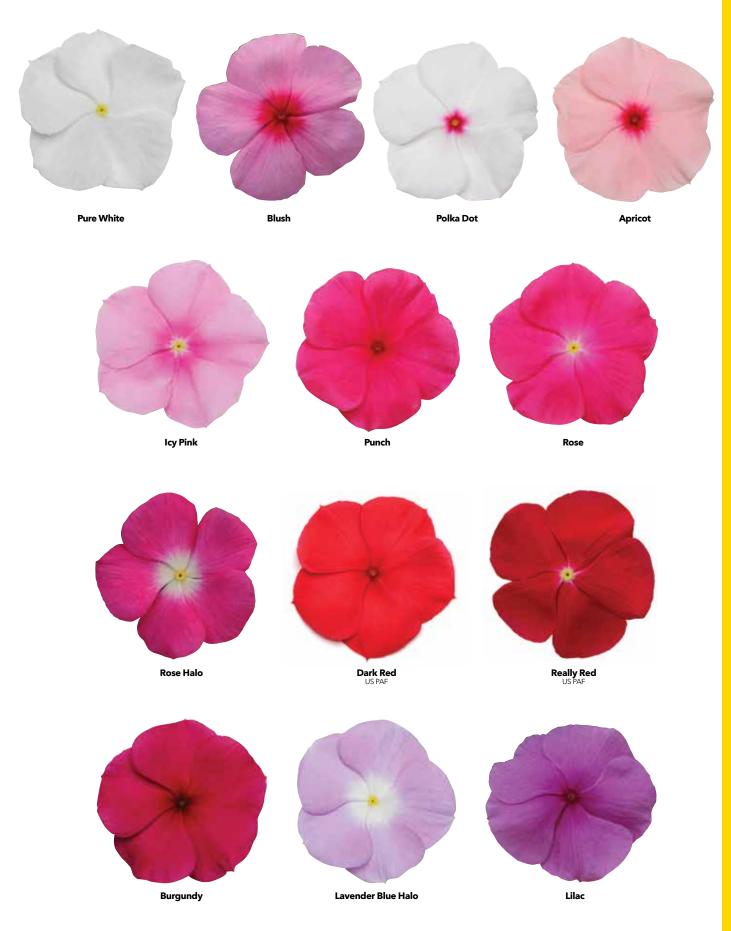
Blush Colour does not fade to white in heat and humidity, and flowers retain the large eye.

Bubble Gum Mixture Blush, Icy Pink, Rose.

Clear Mixture Punch, Dark Red, Lilac, Burgundy, Pure White. **Romance Mixture** Rose Halo, Icy Pink, Pure White.

Summer Breeze Mixture Lilac, Lavender Blue Halo, Pure White.

ANNUALS / TITAN



ANNUALS / VALIANT





Pure White US 9,451,747



Orchid US 9,451,750



Lilac US 9,451,752



Mixture

Add Valiant vinca to create **bold Plug & Play Combos** like this!



Plug & Play Combo Cherry Jam, see page 236.

Punch US 9,451,751

F1 AERIAL PHYTOPHTHORA-RESISTANT UPRIGHT VINCA

Valiant[™] Series F1

0 PRO LANDSCAPE

Height: 14 to 20 in./36 to 51 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 3 to 4 weeks

- The Valiant series is more vigorous than the competition AND it comes with disease resistance (IR*) to aerial Phytophthora under field conditions - a "Win-Win" for landscape programs.
- Makes well-branched, market-ready plants with large flowers that show off high-impact colour at point of sale and in the landscape.
- Superior hybrid vigour allows Valiant vinca landscapes to better survive environmental stresses such as sun, heat, drought, salt and cool/damp conditions.
- Low maintenance with good landscape longevity. Orchid Slightly less vigorous than others in the series.

Mixture Apricot, Burgundy, Lilac, Punch, Pure White.



Burgundy US 9,451,748 *Intermediate Resistance (IR): Plant varieties that restrict the growth and/ or development of the specified pest and/or the damage it causes but may exhibit a greater range of symptoms or damage compared to high resistant varieties. Intermediate resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar

environmental conditions and/or pest pressure. Adopted by the ISF Vegetable and Ornamental Crops Section in May 2017.



ANNUALS / TATTOO



Tattoo Raspberry & Tattoo Papaya US PVPAF



Black Cherry US PVPAF

UPRIGHT VINCA

Tattoo™ Series

Height: 10 to 14 in./25 to 36 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 5 to 6 weeks

• Very floriferous and well-branched plants display one-of-a-kind flowers.

Papaya US PVPAF

• Tight flowering window with an easy-to-grow, uniform, upright habit across all colours.

• Outstanding in hot and sunny conditions.

NOTE: Tattoo blooms display the best colour contrast under warm conditions with moderate light; colours lighten with increased temperatures and light. Grown under cooler conditions and lower light, colours appear darker overall with less contrast and more purple colouration being expressed.

Black Cherry Swirls of cherry and raspberry are lightly airbrushed with purple tones.

Papaya Beautiful, soft "orangesicle"-toned petals are marked with an inky, dark eye.

Raspberry Deep raspberry blooms mature to a soft rose colour, each accented with an inky, dark eye.

Tangerine Dark purple swirls airbrushed onto tangerine-colour blooms with a bright eye.



Raspberry US PVPAF

Make your mark on vinca sales!

The art of plants comes alive on every Tattoo bloom - each petal looks like it is inked or airbrushed with soft brush strokes of dark purple. Adding these novelties to your lineup shows that you have your finger on the pulse of what today's gardener really wants: bold, fun, head-turning. Tattoo...without a doubt, the most unique vinca on the market today!



Tangerine US PVPAF

Try Tattoo vinca for an instant hit in Plug & Play Combos like this!



Plug & Play Combo Ink'd, see page 235.

ANNUALS / PACIFICA XP









XP Polka Dot



XP Punch US PVP 9400248



XP Lipstick Mixture



XP Halo Mixture



XP Mystic Mixture



XP Merlot Mixture



XP Mixture



XP Bold Mixture



XP Burgundy

UPRIGHT VINCA continued

Pacifica XP Series

Height: 10 to 14 in./25 to 36 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 5 to 6 weeks

- Tight, 5 to 7-day flowering window and uniform, upright habit across all colours.
- XP genetics assure precise, programmable, predictable growing.
- Outstanding in hot, dry and sunny conditions.
 Very floriferous and well-branched plants show off bright flowers with an overlapping, fully rounded form that won't show gaps in hot temperatures.

XP Bold Mixture Cranberry, Really Red, Deep Orchid, Orange.

XP Halo Mixture White, Cherry Red Halo, Magenta Halo, Rose Halo, Burgundy Halo.

XP Lipstick Mixture Punch, Dark Red, Blush, Icy Pink.

XP Merlot Mixture Burgundy, Polka Dot, Deep Orchid, Burgundy Halo. XP Mystic Mixture Burgundy, White, Lilac.



XP Rose Halo

US PVP 200500218

XP Burgundy Halo All-America Selections National Winner, Fleuroselect Quality Mark, Fleuroselect Novelty US PVP 200700272



ANNUALS / JAMS 'N JELLIES



XP Apricot US PVP 9800181



XP Magenta Halo US PVP 200500216



XP Lilac



XP Dark Red US PVP 200600189



XP Icy Pink



XP Cherry Red Halo

XP Deep Orchid

XP Really Red US PVP 200600190

XP Blush

XP Raspberry



XP Orange



XP Cranberry



Jams 'N Jellies Blackberry All-America Selections National Winner US PVP 201100526



Jams 'N Jellies Blueberry



Jams 'N Jellies American Pie Mixture

Jams 'N Jellies™ Series

Height: 14 to 16 in./36 to 41 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 5 to 6 weeks

- Makes high-impact, all-season shows in Summer gardens and large planters.
- Bold colours show well at retail ideal for patriotic red, white and blue combos.
- Durable and heat tolerant for Summer-long performance.

Blueberry Truer blue with dark eye and less fade than Victory Blue Improved.

American Pie Mixture Blackberry plus red with white eye and pure white (not sold separately).

ANNUALS / MEDITERRANEAN XP



Mediterranean XP Burgundy Halo



XP White US PVP 200900053



XP Strawberry US PVP 200900083



XP Rose Halo



XP Peach US PVP 2009000880



XP Hot Rose US PVP 200900084



XP Red US PVP 200900081



XP Mixture



XP Dark Red US PVP 200900043



XP Burgundy Halo



Lilac US PVP 9800182



XP Lipstick Mixture

TRAILING VINCA

Mediterranean XP Series

Height: 4 to 6 in./10 to 15 cm **Spread:** 20 to 30 in./51 to 76 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish (basket): Spring 12 to 14 weeks, Summer 8 to 10 weeks

- The only full series of trailing vinca offering a true red.
- Mediterranean XP varieties fill in fast with terrific coverage.
- XP genetics deliver a tight, 5 to 7-day flowering window; luxurious spreading habit; larger flowers and reliable germination.
 Low water needs.

XP Burgundy Halo Vibrant, deep burgundy with bright white eye.

XP Dark Red Same deep red as Pacifica XP Dark Red. Slightly more mounded habit than others in the series.

XP Red Same true red as Pacifica XP Really Red. Slightly more mounded habit than others in the series. XP Lipstick Mixture XP Strawberry, XP Dark Red, XP Rose, XP White.

Mediterranean Lilac

Height: 4 to 6 in./10 to 15 cm Spread: 20 to 30 in./51 to 76 cm

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish (basket): Spring 12 to 14 weeks, Summer 8 to 10 weeks



ANNUALS / QUICKTIME



White Blotch



Blue Purple Jump Up



Lemon Jump Up

VIOLA 💛 🕒 🕒 Viola cornuta

New Quicktime[™] Series F1

Height: 6 to 8 in./15 to 20 cm **Spread:** 6 to 8 in./15 to 20 cm **Flower size:** 1 to 1.5 in./3 to 4 cm

Seed supplied as: Primed

Plug crop time: 4.5 to 5 weeks **Transplant to finish:** Autumn 3 to 4 weeks, Spring 5 to 6 weeks

Early-blooming, free-flowering plants provide bright colour in early Spring and Autumn gardens.
Reduced daylength sensitivity and free-flowering selection criteria make Quicktime viola the best option for saving growing time in cold-grown, overwinter-produced viola crops.
Compact plants have a uniform habit and are covered in 1 to 1.5 in./3 to 4 cm blooms.

• A well-branched, full-bodied plant that fills out the pot or pack.

• Features 'Hyperflora' flowering power, so it has multiple blooms at first flower and continues with fast secondary and tertiary flowering.



Quicktime Yellow Blue Jump Up



Yellow Violet Jump Up

Shorter production time = cost savings

Flowering two weeks faster than comparable series, NEW Quicktime allows you to sow your viola crop two weeks later and still ship on time in Spring. With reduced labour and less heat needed in the greenhouse, the cost savings are quick to add up!







L: Competing Yellow Jump Up, R: NEW Quicktime Yellow Violet Jump Up flowering 2 weeks earlier in northern European trials in 2017.



Send the bestlooking violas to retail

Grow, ship, sell and plant the best-looking violas for Spring and Autumn - Sorbet XP genetics deliver a uniform plant habit and the tightest bloom window.

Choose Sorbet viola to add drama in Plug & Play Combos like this!



Fuseables Sunset Boulevard, see page 223.

Sorbet XP Beaconsfield



XP Delft Blue, Lemon Chiffon and XP Beaconsfield

VIOLA continued Sorbet® XP Series F1

PRO LANDSCAPE PERFORMER

Height: 6 to 8 in./15 to 20 cm Spread: 6 to 8 in./15 to 20 cm Flower size: 1 to 1.5 in./3 to 4 cm

Seed supplied as: Raw, Primed

Plug crop time: 4.5 to 5 weeks **Transplant to finish:** Early Spring 6 to 8 weeks, Autumn 4 to 5 weeks

• Sorbet XP needs fewer PGRs, with superior holdability and less shrink.

• F1 vigour assures greater germination, earliness, and excellent plug and garden performance.

• Violas are a key pro landscaper item and Sorbet XP excels at every turn: plants cover the soil at flowering, with more blooms on every plant and less stretching; stay compact in both heat and cold; excellent overwintering; wide range of clear colours allows for custom mixes.

• Well-suited to Spring and Autumn packs and 3.5-in./9-cm pots.

XP Morpho Bicolour pattern changes with environment; more blue under cool Spring conditions.

New XP Neptune Beautiful cream with blue picotee colour is now available with XP performance.

XP Pink Wing Highly sought-after pink cap/white face colour pattern.

XP Yellow Burgundy Jump Up Yellow face with burgundy cap. XP Yellow Pink Jump Up Lavenderpink cap fades with age and heat or PGR stress, similar to other pink cap types.

XP YTT Opens white, then changes to azure blue.

XP Autumn Select Mixture Bold seasonal colours selected for optimal timing and habit uniformity in Autumn.

XP Blackberry Sundae Mixture XP White Jump Up, XP White, XP Purple, XP Purple Face.

XP Blotch Mixture Best matched and most well-balanced colour mix of any blotch mix on the market. Includes existing blotch varieties plus others for future introduction.

XP Blueberry Sundae Mixture XP True Blue, XP Delft Blue, XP White.

XP Citrus Mixture XP Orange, XP Yellow, XP White.

XP Harvest Mixture XP Orange, XP Purple, XP Yellow.

XP Jump Up Mixture XP Denim Jump Up, XP Lemon Jump Up, XP Orange Jump Up, XP White Jump Up, XP Yellow Jump Up. XP Lemon Parfait Mixture XP White,

XP Yellow, XP Yellow Jump Up. **XP Ocean Breeze Mixture** XP Blue

Blotch, XP Marina and XP White Blotch.

XP Raspberry Sundae Mixture XP Pink Halo, XP Raspberry and XP White Blotch.

XP Spring Select Mixture Selected for optimal timing and habit uniformity in Spring.

Sorbet mixtures on page 125.



XP Yellow

ANNUALS / SORBET XP

















XP White

XP Yellow

XP Pink Wing

XP Deep Orange

XP Lavender Pink

XP Beaconsfield

XP Purple



XP True Blue



XP Blackberry



XP White Blotch

XP Lemon Ice Blotch

XP Pink Halo

XP Primrose Blotch

XP Yellow Blotch



XP Blue Blotch



XP Red Blotch



XP Yellow Pink Jump Up









XP Yellow Jump Up



XP Yellow Burgundy Jump Up



XP YTT



XP Marina



XP Delft Blue Fleuroselect Gold Medal

XP White Jump Up



NEW XP Neptune



XP Denim Jump Up



XP Morpho Autumn/warm temperature bloom colour

XP Morpho Spring/cool temperature bloom colour







XP Purple Face









ANNUALS / SORBET XP



XP Raspberry Sundae



XP Ocean Breeze Mixture



XP Spring Select Mixture



XP Citrus Mixture



XP Lemon Parfait Mixture



XP Blueberry Sundae Mixture



XP Mixture



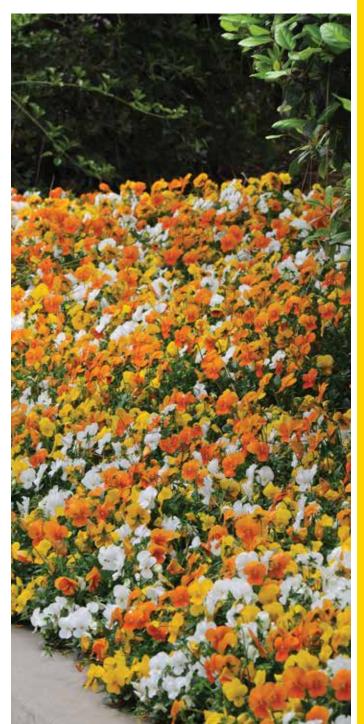
XP Autumn Select Mixture



XP Blotch Mixture



XP Harvest Mixture



Sorbet XP Citrus Mixture





XP Blackberry Sundae Mixture

ANNUALS / SORBET



Sorbet Rose Wing



Lemon Chiffon

Carmine Rose

126 VIOLA



Icy Blue

Honeybee





Orchid Rose Beacon

Antique Shades



Violet Beacon

Fire

needed.

• Superior holdability and less shrink.

• Use in Autumn and Spring programs - the novelty colours have good retail and home garden appeal.

Fire Colour pattern varies by environment.

Honeybee Yellow/copper-orange bicolour; bright and sunny for Spring production. 30% more vigorous and longer peduncles than other Sorbet varieties.

New Rose Wing Deep pink-to-rose cap with a white face provides a "jump up" look. Slightly darker colour than Pink Wing. Colour will be most intense under cooler conditions.



Ruby Gold



Midnight Glow

Yellow Blue Jump Up

Black Delight



NEW Rose Wing

VIOLA continued

Sorbet® Series F1

Height: 6 to 8 in./15 to 20 cm Spread: 6 to 8 in./15 to 20 cm Flower size: 1 to 1.5 in./3 to 4 cm

Seed supplied as: Raw, Primed

Plug crop time: 4.5 to 5 weeks Transplant to finish: Early Spring 6 to 9 weeks, Autumn 4 to 6 weeks

 Plants cover the soil at flowering with more blooms and less stretching, and fewer PGRs are

ANNUALS / FRIZZLE SIZZLE MINI

New Frizzle Sizzle Mini Series F1

Height: 6 to 8 in./15 to 20 cm Spread: 6 to 8 in./15 to 20 cm Flower size: 1.25 to 1.5 in./ 3 to 4 cm

Seed supplied as: Raw, Primed

Plug crop time: 4.5 to 5 weeks Transplant to finish: 6 to 7 weeks

• Adds a unique frilly flower form to violas!

• Great for containers or "close-up" landscapes.

• Moderate vigour and a

mounding habit.

• Best for cool seasons in early Spring or Autumn; stonger ruffling occurs in cool conditions.

• Spring production is recommended.

New Purple Shades Frilled purple flower with an attractive dark eye.

New Tapestry Flowers contain shades of purple, burgundy and yellow, providing a tapestry of colour.

New Yellow Frilled yellow flower with an attractive dark eye.

New Mixture Yellow, Purple Shades, Tapestry.



Purple Shades



Tapestry



Yellow



Frizzle Sizzle Mini Mixture

ANNUALS / ZAHARA



Zahara Starlight Rose



Sunburst Fleuroselect Gold Medal, Fleuroselect Novelty

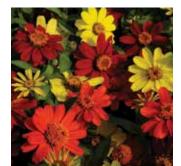
Use Zahara zinnias to add a cheerful note to Plug & Play Combos like this!



Plug & Play Combo Yellow Tambourine, see page 236.



Mixture



Bonfire Mixture



Raspberry Lemonade Mixture

ZINNIA O Zinnia marylandica

Zahara[®] Series

Height: 12 to 18 in./30 to 46 cm **Spread:** 12 to 18 in./30 to 46 cm

Seed supplied as: Raw, Coated

Plug crop time: 3 weeks Transplant to finish: Spring 8 to 9 weeks, Summer 5 to 6 weeks

- 20% larger flowers than competing varieties means more colour on the bench than any other disease-resistant zinnia...more retail impact...flower power that lasts in the landscape.
- Less care needed at retail for faster turns, less dump and better sell-through.

• Outstanding performer in heat, drought.

Fire Colour intensifies outdoors.

Red One of the largest flowers in the series. Colour varies by environment.

Starlight Rose Colour pattern varies by environment; best colour from high light, good fertilization and cool nights.

Bonfire Mixture Red, Fire, Yellow. Raspberry Lemonade Mixture Raspberry, Yellow, Starlight Rose.



ANNUALS / ZAHARA XL



Zahara White US PVP 201400297



Zahara Yellow US PVP 201500214



Zahara Fire US PVP 201000090



Zahara Red US PVP 201600030



Zahara Starlight Rose All-America Selections National Winner, Fleuroselect Novelty



Zahara Sunburst Fleuroselect Gold Medal, Fleuroselect Novelty



Zahara Raspberry US PVP 201500215



Zahara Cherry US PVP 201600029



Zahara XL Fire



Zahara XL Fire



Zahara XL Pink US PVP 201200482



Zahara XL White US PVP 201200485



Zahara XL Yellow US PVP 201200483

Zahara® XL Series

PRO LANDSCAPE PERFORMER

Height: 18 to 24 in./46 to 61 cm **Spread:** 18 to 24 in./46 to 61 cm

Seed supplied as: Raw, Coated

Plug crop time: 3 weeks Transplant to finish: Spring 8 to 9 weeks, Summer 5 to 6 weeks

- The ideal choice for pro landscape programs: tremendous disease resistance for reliable, season-long performance...more vigour and larger blooms for quick fill...taller plants assure versatile uses and high visual appeal.
- Available in bright colours for the landcape or impulse buys at retail, including Yellow and Pink.
- Suitable for pot-tight production of 4-in./10-cm pots up to gallon containers.



Double Zahara Bright Orange Fleuroselect Novelty



Yellow US PVP 201600028



White Fleuroselect Novelty



Fire All-America Selections National Winner, Fleuroselect Gold Medal, Fleuroselect Novelty US PVP 201600032



Salmon US PVPAF



Cherry All-America Selections National Winner, Fleuroselect Novelty US PVP 201600027



Brilliant Mixture



Bright Orange Fleuroselect Novelty



Raspberry Ripple US PVPAF



Mixture

ZINNIA MARYLANDICA continued

Double Zahara[™] Series



Height: 16 to 20 in./41 to 51 cm **Spread:** 16 to 20 in./41 to 51 cm

Seed supplied as: Raw, Coated

Plug crop time: 3 weeks Transplant to finish: Spring 8 to 9 weeks, Summer 5 to 6 weeks

• The only fully double, diseaseresistant zinnia series makes a huge colour show!

• The competition has smaller, semi-double flowers.

• Award-winning, all-season performance and durability in landscapes and containers, especially in sunny, hot and dry conditions.

• Intermediate size is perfect for mid-level plantings in the landscape. Works well in containers, too.

Bright Orange Intense bright orange colour on highly double flowers. Very floriferous, with slightly smaller flowers than others in the series.

Raspberry Ripple Colour can vary under different environmental conditions. Cooler temperatures accentuate the rose; as flowers age and under more heat, the white comes out more.

Salmon Holds its colour under hot conditions, while others in this colour class start to wash out.

White Outstanding white has larger and more double flowers than the competition. Up to 2% of plants can show pink blushing in the flowers.

Yellow Same colour as Zahara Yellow, but appears more vibrant due to double shape and high petal count.

Brilliant Mixture Yellow, Cherry, Fire.

Mixture Cherry, Salmon Rose, Yellow, Fire, White.

ANNUALS / DOUBLE ZAHARA



Salmon US PVPAF



Fire All-America Selections National Winner, Fleuroselect Gold Medal, Fleuroselect Novelty US PVP 201600032



Bright Orange Fleuroselect Novelty



Cherry All-America Selections National Winner, Fleuroselect Novelty US PVP 201600027



Zesty Purple



Fuchsia



Purple

132



Pink



White



Scarlet



Mixture

ZINNIA O Zinnia elegans (syn. Zinnia violaceae)

New Zesty™ Series

Height: 18 to 24 in./46 to 61 cm **Spread:** 18 to 24 in./46 to 61 cm **Flower size:** 3 to 5 in./8 to 13 cm

Seed supplied as: Coated

Plug crop time: 3 to 4 weeks Transplant to finish: 6 to 7 weeks

- Extraordinary garden appeal!
 Features fully double flowers and
- Features fully double flowers and excellent garden vigour.
- Displays huge, vibrant colours all season long.
- Impressive in containers, mixed combinations and borders.
- Pollinators love this plant!

New Fuchsia Vivid rose-purple colour to light up the garden.

New Pink A darker pink shade with more purple/rose tones than the competition.

New Purple Stunning and unique deep purple colour.

New Scarlet The most compact variety in the series.

New White A true white colour.

New Mixture Includes all the colours of the series, plus yellow (not available separately).

ANNUALS / STAR



State Fair Mixture

State Fair Mixture

Height: 36 to 48 in./91 to 122 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• Tetraploid mix has very large flowers in bright scarlet, gold, lavender, purple, orange, pink, red and yellow.

ZINNIA 😐 Zinnia angustifolia

Star Series

Height: 14 in./36 cm Spread: 8 in./20 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

• Single, star-shaped flowers up to 2 in./5 cm across on plants with a looser, more informal look.

• Tolerates heat, humidity and drought.

• Vigorous enough to fill a bed, basket or mixed container quickly.

• Resistant to Alternaria and powdery mildew.

Star Starbright Mixture







Star Gold



Star Orange



Star White





NEW SALVATORE BLUE SALVIA

This premium variety offers the largest spikes and the deepest coloured calyx, spikes and flowers in *Salvia nemorosa* from seed. See page 156.

NEW ROCKIN'™ PINK MAGIC DIANTHUS

This series continues to rock it in borders and garden beds year after year. See page 142.

PERENNIALS

FIRST-RATE FOR RETURN FLOWERING

Creativeness in breeding and production means you can always count on Kieft Seed[™] perennials from PanAmerican Seed for **best-in-class genetics** and **exceptional seed quality**. Our stellar seed selection offers strong bench-to-garden performance, with **reliable availability**, so you have the seed you need when you need it.

KieftSeed



PERENNIALS / WINKY DOUBLE



Clementine

Salmon Rose



Clementine Rose





Clementine White



Mixture Fleuroselect Quality Mark



Winky Double Dark Blue-White



Winky Double Mixture





Winky Single Blue-White Winky Single White



Winky Single Red-White Fleuroselect Quality Mark, Fleuroselect Winky Single Rose-Rose Fleuroselect Quality Mark



Winky Single Pink



Winky Single Early Sky Blue Fleuroselect Novelty

Clementine™ Series Height: 14 to 16 in./36 to 41 cm Spread: 12 to 14 in./30 to 36 cm USDA Hardiness Zones: 3a to 8b (-40 to 15°F/-40 to -9°C minimum temperatures) Seed supplied as: Primed

Clementine

 Useful in both borders and landscapes.

 Spurless double flowers face upwards and resemble Clematis flowers.

Plug crop time: 7 to 8 weeks

Transplant to finish: 26 to 40 weeks

AQUILEGIA (COLUMBINE)

Aquilegia vulgaris

• Best-suited for 5 to 6-in./13 to 15-cm pots, plants have good shelf life with high appeal in the store and in the garden.

Winky Double Series

Height: 12 to 14 in./30 to 36 cm Spread: 12 to 14 in./30 to 36 cm

USDA Hardiness Zones: 3a to 8b (-40 to 15°F/-40 to -9°C minimum temperatures)

Seed supplied as: Raw

Plug crop time: 7 to 8 weeks Transplant to finish: 26 to 40 weeks

• Unique double, upward-facing flowers in one-of-a-kind colour patterns offer "something different" for big retail appeal.

- Excellent uniformity during
- culture and harvest.
- Full and vigorous habit. • Long shelf life.
- Versatile uses.

Winky Single Series

Height: 12 to 14 in./30 to 36 cm Spread: 12 to 14 in./30 to 36 cm

USDA Hardiness Zones: 3a to 8b (-40 to 15°F/-40 to -9°C minimum temperatures)

Seed supplied as: Raw

Plug crop time: 7 to 8 weeks Transplant to finish: 26 to 40 weeks

- Winky's unique colours and abundance of upright-facing flowers make for strong sales appeal - the most floriferous Aquilegia at retail!
- Plants ship and retail well. • Uniform in habit and height, with strong stems and vigorous, bushy habit.

 Useful for containers and landscapes.

• Flowers Spring to early Summer, with recommended sowing time June to July.

Early Sky Blue 1 to 2 weeks earlier than the rest of the series.





Novelty



Winky Double Rose-White





Winky Single Purple-White

Winky Single Mixture

PERENNIALS / SWAN



Songbird Bluebird



Songbird Nightingale

AQUILEGIA (COLUMBINE) Aquilegia x hybrida

Songbird Series F1

Height: 11 to 18 in./28 to 46 cm; varies by variety Spread: 10 to 14 in./25 to 36 cm

USDA Hardiness Zones: 3a to 9b (-40 to 25°F/-40 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 8 weeks Transplant to finish: 22 to 28 weeks

• Popular series is easy and economical to grow - with true, non-fading colours in late Spring and early Summer.

• Well-adapted for 6-in./15-cm pot and garden use.

• Can be flowered in Spring from an Autumn sowing when grown in a cool greenhouse (night temperatures lower than 60°F/16°C) with no special vernalisation treatment required. • Free-flowering, medium-compact plants have 1.5 to 3.5-in./4 to 9-cm blooms.

Bluebird 11 in./28 cm tall.

Cardinal 11 in./28 cm tall. Earlyflowering and well-matched to Bluebird.

Nightingale 18 in./46 cm tall. Robin 18 in./46 cm tall. Very easy to force into flower.

Also available: Mixture



Songbird Cardinal



Songbird Robin

Swan Series F1

Height: 20 to 24 in./51 to 61 cm Spread: 12 to 14 in./30 to 36 cm

USDA Hardiness Zones: 3a to 9b (-40 to 25°F/-40 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 9 weeks Transplant to finish: 22 to 28 weeks

• The true garden Aquilegia! Abundant large blooms in vibrant colours make this an excellent home garden cut flower.

• Early and economical to grow can be flowered in Spring from an Autumn sowing when grown in a cool greenhouse (night temperatures lower than 60°F/16°C) with no special vernalisation treatment. Multi-stemmed plants are

well-matched for uniform size, exceptional garden performance

and large blooms. • Easy to force into flower in containers.

• Very high bud count for more flowers per plant.

• Taller than the Songbird varieties.

Pink And Yellow Slightly earlier than other Swan colours, flowering 2 to 3 weeks faster.







Swan Mixture





Swan Lavender



Swan Pink And Yellow



Swan Red And White



Swan Burgundy And White RHS Award of Garden Merit



Swan Violet And White

PERENNIALS / BELLISSIMA



Bellissima Mixture Bellis



Ballerina Mixture Armeria



Ballerina White Armeria Fleuroselect Gold Medal, Fleuroselect Novelty



Spring Charm Arabis



Ballerina Lilac Armeria



Ballerina Red Armeria Fleuroselect Gold Medal, Fleuroselect Novelty



Bellissima Red Bellis Fleuroselect Novelty



Bellissima Rose Bellis Fleuroselect Quality Mark, Fleuroselect Novelty

ARABIS • Arabis blepharophylla

Spring Charm

Height: 6 to 8 in./15 to 20 cm Spread: 8 in./20 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)

Seed supplied as: Raw

Plug crop time: 6 to 8 weeks Transplant to finish: 24 to 36 weeks

• Wintergreen, bushy and compact plant has spikes of strong pink flowers over attractive foliage.

ARMERIA •••

Ballerina Series

Height: 8 to 10 in./20 to 25 cm Spread: 8 to 10 in./20 to 25 cm

USDA Hardiness Zones: 7a to 9b (0 to 25°F/-18 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

blooms

Plug crop time: 5 to 6 weeks Transplant to finish: 12 to 15 weeks

High-quality, programmable

perennial fits right into your earlyseason program. • Compact and uniform plants produce cushion-shaped, grassy foliage and long, strong stems topped with globe-shaped



Bellissima Rose Bicolor Bellis Fleuroselect Quality Mark, Fleuroselect Novelty



Bellissima White Bellis Fleuroselect Quality Mark, Fleuroselect Novelty

BELLIS • Bellis perennis

Bellissima™ Series

Height: 6 to 10 in./15 to 25 cm Spread: 5 to 8 in./13 to 20 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)

Seed supplied as: Pelleted

Plug crop time: 5 weeks Transplant to finish: 8 to 14 weeks

- Robust, early-blooming plants are strong landscape performers in cool climates.
- Needs no vernalisation to flower.
 Displays an abundance of large, fully double flowers.

CAMPANULA See page 140.



PERENNIALS / DOUBLE THE SUN



Early Sunrise All-America Selections National Winner, Fleuroselect Gold Medal



Sunfire Fleuroselect Quality Mark, Fleuroselect Novelty

COREOPSIS Oreopsis grandiflora

Double the Sun

Height: 12 to 14 in./30 to 36 cm Spread: 12 to 14 in./30 to 36 cm

USDA Hardiness Zones: 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Primed

Plug crop time: 5 to 7 weeks Transplant to finish: 9 to 12 weeks

• Semi-double, clear golden yellow flowers are the same large, 2.5-in./6-cm size as SunKiss and Early Sunrise, and bigger than Sunfire.

• Great controlled habit with strong flowering.

 Ideal for quart and 1-gallon production in Spring and Summer with 13-hour critical daylength.
 For 2-gallon and larger containers in Summer, Early Sunrise is the optimal choice.

• Suggested substitution for discontinued Sun Up.

Strike gold when you use Double the Sun coreopsis in Plug & Play Combos like this!



NEW Plug & Play XXL Combo Golden Era, see page 238.



SunKiss US PVPAF, EU 46544

Early Sunrise

Height: 24 in./61 cm Spread: 22 to 24 in./56 to 61 cm

USDA Hardiness Zones: 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Primed

Plug crop time: 5 to 7 weeks Transplant to finish: 9 to 12 weeks

Our most vigorous coreopsis.
Produces golden yellow, semidouble flowers constantly all Summer.

• Can also be marketed as an annual in premium packs.

The early bird gets the...Sales!

There's early...and then there's Double the Sun! This bright variety is 2 to 3 weeks earlier than our Early Sunrise and other comparable varieties in the early cool season. In Summer, it finishes 1 to 2 weeks earlier. Get this favourite perennial class into the store before any other compact, semi-double yellow Coreopsis.

Double the Sun Fleuroselect Novelty

Sunfire

Height: 24 in./61 cm Spread: 22 to 24 in./56 to 61 cm

USDA Hardiness Zones: 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Primed

Plug crop time: 5 to 7 weeks Transplant to finish: 8 to 10 weeks

• Well-matched to Rising Sun for habit and timing. • Naturally compact in a pack or 4-in./10-cm pot, requiring

less PGRs, or no PGRs in certain conditions.Can also be marketed as an annual in premium packs.

SunKiss

Height: 12 to 14 in./30 to 36 cm Spread: 14 to 16 in./36 to 41 cm

APPROVED

USDA Hardiness Zones: 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Primed

Plug crop time: 5 to 7 weeks Transplant to finish: 9 to 12 weeks

- A colour breakthrough in seed *C. grandiflora*: SunKiss is the brightest yellow with large blotch available.
- Larger, deep red blotch and larger flowers than Sunfire.
- Controlled habit fewer PGRs needed, or no PGRs in certain conditions.

• Fast finish, with timing similar to Rising Sun.

• Well-branched and floriferous.

• Excellent heat-tolerant plant for novice and expert gardeners alike - reliable, easy to grow and the colour blends well with almost everything.

PERENNIALS / GUARDIAN



Guardian Mixture Delphinium

What you want, when you want it

It's easy to program your crop to meet shipping dates with Guardian. It offers very uniform blooming, especially under short days. Plus, it's up to 6 weeks faster from transplant to bloom than O.P. types, for more turns in the greenhouse. For programmability and efficiency, Guardian is leading the charge.



Guardian Lavender Delphinium



Guardian Blue Delphinium



Guardian White Delphinium





CAMPANULA 🔍 🌖 Campanula carpatica

Rapido Series F1

Height: 5 to 7 in./13 to 18 cm Spread: 5 to 8 in./13 to 20 cm

USDA Hardiness Zones: 3a to 9b (-40 to 25°F/-40 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time: 7 to 10 weeks Transplant to finish: 9 to 12 weeks

- Earliest C. carpatica up to 4
- weeks earlier than other varieties. • Delivers good young plant and finished plant vigour, while
- maintaining compact habit. Very short harvest window.
- Showy Spring perennial is ideal for high-volume bench run potted plant programs for 4-in./10-cm pots or gallons.

• Versatile - suited to patio planters and gardens, as well as an indoor novelty potted plant.

DELPHINIUM 😑

Delphinium grandiflorum

Diamonds Blue F1

Height: 16 to 24 in./41 to 61 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 7 weeks Transplant to finish: 10 to 12 weeks

• The first F1 spurless delphinium from seed, Diamonds Blue eliminates the need for tissue culture inputs and is supplied with up to 25% higher germination than O.P. types for more efficient young plant production.





Delphinium Delphinium DELPHINIUM Delphinium elatum

Guardian Series F1

Height: 30 to 39 in./76 to 99 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 7 weeks Transplant to finish: 16 weeks

 Breeding breakthrough makes it easy to program your crop to meet shipping dates.

• Very uniform blooming within each variety, especially under short days.

• Works well as a tall landscape/ perennial variety, as a commercial cut flower, and in potted plant programs.

• Up to 6 weeks faster from transplant to bloom than O.P. types for more turns per sq. ft./metre of greenhouse space.

• Also suitable as a greenhouse cut flower or for garden cut flower production.

 As a greenhouse cut flower, Guardian can be grown under the same conditions as dianthus and snapdragons.

• Produces excellent stem quality for good cut flower shippability.

DELPHINIUM 😑 Delphinium x belladonna

Blue Donna

Height: 32 to 40 in./81 to 102 cm Spread: 8 to 10 in./20 to 25 cm

USDA Hardiness Zones: 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 12 to 16 weeks

• True blue Delphinium has improved uniformity and colour, increased productivity and more stems per sq. ft./sq. m.

PERENNIALS / DALMATIAN

Showy for early sales

Be the first to market with the fastest Digitalis in an exciting array of colours customers will love! Dalmatian offers uniformity, a great habit and early flowering, making it an ideal premium end cap product in larger containers. Get the series that's easier for shoppers to spot!



Peach



e

Ros



Crème

DIGITALIS O Digitalis purpurea

Dalmatian Series F1

Height: 16 to 20 in./41 to 51 cm **Spread:** 12 to 14 in./30 to 36 cm

USDA Hardiness Zones: 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 10 to 14 weeks

• The fastest Digitalis on the market

In striking colours customers love!
Uniform in height and early flowering.

flowering. • Well-branched with excellent habit and compact foliage.

• Produces strong colours on

good-quality spikes.Suitable for 1 and 2 gallons and up.

• Premium end cap product.

 White



Purple Fleuroselect Novelty



Dalmatian Mixture

PERENNIALS / ROCKIN'



Rockin' Series



Pink Magic

Rockin' the garden!

This dynamite series will keep perennial borders rocking for years to come, thanks to vivid colour, durable performance and count-on-it overwintering!



Purple



Rose



Red

DIANTHUS ○ ● Dianthus x barbatus interspecific Rockin'™ Series F1

Height: 18 to 24 in./46 to 61 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time: 4 to 6 weeks Transplant to finish: 8 to 9 weeks

• The Rockin' Series opens the door to premium product sales in perennial quart and gallon programs for mid-Spring and the Autumn decorating season.

• Lacy, slightly scented flowers top full and long-lasting plants - this one delivers *lots of plant for the money*, and that's sure to satisfy shoppers.

• Reliably overwinters to USDA Zone 5 (-20°F/-29°C minimum temperatures) to assure multi-year performance.

• The best colour intensity occurs in the high light and cool temperatures of outdoor production.

New Pink Magic Blooms open white and mature to light pink, then deep pink.

New Purple Lavender-purple colour.

New Rose Deep rose colour.

ANNUAL DIANTHUS See page 35.

CUT FLOWER DIANTHUS See page 183.



PERENNIALS / CHEYENNE SPIRIT

More colours! More flowers! More sales!

Award-winning 'Cheyenne Spirit' gives you the more economical way to bring these highdemand colours to market, compared to traditional tissue-culture material. This incredibly vibrant segregating mix delivers maximum flower power at retail, and continues to shine in landscapes with its superior performance.

ECHINACEA 😑 Echinacea x hybrida

'Cheyenne Spirit'



Height: 18 to 24 in./46 to 61 cm first year; 22 to 30 in./56 to 76 cm second year **Spread:** 10 to 16 in./25 to 41 cm first year; 14 to 20 in./36 to 51 cm second year

USDA Hardiness Zones: 4a to 10b (-30 to 35°F/-34 to 2°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 13 to 17 weeks

• Plants are shorter, better branched and fuller than many tissue culture varieties. This makes it possible to grow without PGRs and offers the ability to ship on tightly spaced racks.

• Flexible scheduling is possible to meet a range of market dates.

• Fits a broad range of sizes from premium packs to gallons. Packs are suitable for in-colour or green plant sales for landscape or prairieto-go uses.

 Broad and consistent palette includes shades of red, orange, purple, scarlet, cream, yellow and white.

• Long retail shelf life, heat and drought tolerance, and excellent Winter hardiness.

'Cheyenne Spirit'



'Cheyenne Spirit' All-America Selections National Winner, Fleuroselect Gold Medal US 7,982,110



Create dramatic Plug & Play Combos like this with 'Cheyenne Spirit' echinacea!



Plug & Play XXL Combo Paris in Springtime, see page 239.

PanAmerican Seed.



PowWow Wild Berry All-America Selections National Winner US 7,982,110; EU 3w5233



Wild Berry



White

Create eye-catching Plug & Play Combos like this with PowWow echinacea!



NEW Plug & Play XXL Combo Pink Pursuit, see page 238.

ECHINACEA O Echinacea purpurea

PowWow® Series



Height: 16 to 20 in./41 to 51 cm first year; 22 to 24 in./56 to 61 cm second year Spread: 12 to 16 in./30 to 41 cm

USDA Hardiness Zones: 4a to 10b

(-30 to 35°F/-34 to 2°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 13 to 17 weeks

• PowWow puts more flowers on every plant than any other seed Echinacea, for a terrific, nonfading colour show!

• Colour-packed pair is well-

matched for habit and timing.Fuller, shorter and better branched than many tissue culture

Echinacea - can be grown without growth regulators and shipped tight on racks.

• Programmable to meet market dates.

• Versatile series works well from gallon containers to premium packs.

• Packs are suitable for landscaper in-colour or green plant sales and for prairie-to-go programs.

• Very drought-tolerant, easy-care plants stay tidy at retail with long holdability.



PERENNIALS / MESA

Create sun-filled Plug & Play Combos like this with Mesa gaillardia!



NEW Plug & Play XXL Combo Sun Sea and Rosé, see page 238.

GAILLARDIA O Gaillardia x grandiflora

Mesa[™] Series F₁

Height: 14 to 16 in./36 to 41 cm **Spread:** 20 to 22 in./51 to 56 cm

USDA Hardiness Zones: 5a to 10b (-20 to 35°F/-29 to 2°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Clean

Plug crop time: 5 to 6 weeks Transplant to finish: 11 to 13 weeks

• The first F1 gaillardia from seed puts out lots of fast colour on sturdy plants.

• Strong, early-flowering, wellbranched plants fill quart and gallon containers quickly while maintaining the controlled height.

• Compared with other seed gaillardia, Mesa varieties are more uniform in habit and flowering time, for easier scheduling and shipping.

• Very drought tolerant once established, with intense, non-fading colour all season.

• Upright, well-balanced plants perform well in landscapes and mixed containers.

Red Surpasses the competition in several areas: more consistent, redder colour; more uniform vigour/habit; 1 week earlier flowering. Flowers uniformly at 10 hours. Within the series, in Spring production, Red is 14 to 20 days earlier to flower than Bright Bicolor and Yellow. In Summer production, it is 1 week earlier than Bright Bicolor and 14 to 20 days earlier than Yellow.

Fast, non-fading colour that won't quit

The first seed F1 gaillardia fills quart and gallon containers quickly with bold, brilliant colour. These plants hold up under dry conditions, and they put out intense, nonfading colour all season long. Create more colourful landscapes and mixed containers with Mesa.



Bright Bicolor





Peach

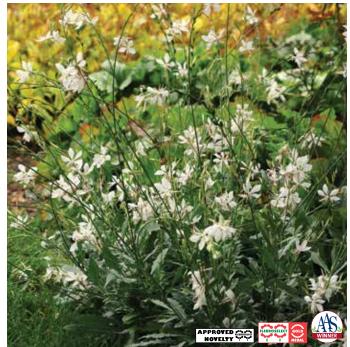


Yellow All-America Selections National Winner, Fleuroselect Gold Medal



Mesa Bright Bicolor adds colour and interest to perennial displays.

PERENNIALS / SPARKLE WHITE



Sparkle White Gaura All-America Selections National Winner, Fleuroselect Gold Medal, Fleuroselect Novelty

GAURA 🔍 🕽

Gaura lindheimeri

Sparkle White

PRO LANDSCAPE PERFORMER

Height: 12 to 24 in./30 to 61 cm **Spread:** 12 to 20 in./30 to 51 cm

USDA Hardiness Zones: 5b to 9a (-15 to 20°F/-26 to -7°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 weeks Transplant to finish: 7 to 8 weeks

Early, naturally compact and long-flowering variety is easy to grow, with no pinching necessary.
Significant timing improvements over older seed Gaura genetics - 2 to 3 weeks faster. At 12 to 13-week crop time, it compares with vegetative varieties.
Can be finished in 4 to 6-in./

10 to 15-cm pots to save labour and bench time.

• Durable, drought-tolerant variety is compact enough for containers and floriferous enough to use as a bedding plant. **GYPSOPHILA O** Gypsophila cerastioides

Pixie Splash

Height: 3 to 5 in./8 to 13 cm Spread: 4 to 7 in./10 to 18 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)

Seed supplied as: Primed

Plug crop time: 5 to 6 weeks Transplant to finish: 26 to 40 weeks

Early Spring perennial offers reliable seed quality and germination, uniform and compact habit, and short harvest window.
Long-lasting on the shelf for minimum waste.



Palace Purple Heuchera



Pixie Splash Gypsophila

HEUCHERA •••

Palace Purple

Foliage height: 10 in./25 cm Flower height: 20 in./51 cm Spread: 14 to 16 in./36 to 41 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)

Seed supplied as: Pelleted

Plug crop time: 6 to 8 weeks Transplant to finish: 10 to 12 weeks

• Compact variety has highly attractive foliage of strong bronzepurple, with small white flowers appearing later.



Melting Fire Heuchera Fleuroselect Novelty EU 20557

HEUCHERA ••• Heuchera x hybrida

Melting Fire

Foliage height: 8 in./20 cm Flower height: 18 in./46 cm Spread: 12 to 14 in./30 to 36 cm

USDA Hardiness Zones: 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures)

Seed supplied as: Pelleted

Plug crop time: 8 to 10 weeks Transplant to finish: 12 to 16 weeks

- Uniform, excellent-quality plant is cost-effective and easy to grow as a plug.
- Strong garden performer has good weather tolerance.
 Large plants have strong curled leaves in intense purple-red.
- True tissue culture alternative.

PERENNIALS / LUNA



Luna White Hibiscus

HIBISCUS O Hibiscus moscheutos

Luna[™] Series F1

Height: 24 to 36 in./61 to 91 cm Spread: 24 in./61 cm

USDA Hardiness Zones: 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 3 to 4 weeks Transplant to finish: 10 to 13 weeks

Produces big, bushy, wellbranched plants without pinching.
Numerous 6 to 8-in./15 to 20-cm flowers.

- Ideal for large containers or in perennial gardens.
- Very responsive to PGRs.
- Higher germination than other seed varieties.

ANNUAL HIBISCUS

See page 47.

IBERIS Oliversis sempervirens

Whiteout

Height: 6 to 8 in./15 to 20 cm Spread: 8 to 12 in./20 to 30 cm

USDA Hardiness Zones: 3a to 8b (-40 to 15°F/-40 to -9°C minimum temperatures)

Seed supplied as: Raw

Plug crop time: 3 to 4 weeks Transplant to finish: 26 to 36 weeks; sow May to mid-August, finish March to May

• Delivers more uniform flowering and plant habit than other seed varieties.

• Improved branching and centre fill provides a more attractive finished plant.

• No pinching needed, for less labour and plant loss.



Luna Pink Swirl Hibiscus



Luna Red Hibiscus



Luna Rose Hibiscus



Luna White Hibiscus



Luna Mixture Hibiscus



Whiteout Iberis Fleuroselect Novelty

PERENNIALS / AVIGNON EARLY BLUE



Ellagance Purple Fleuroselect Gold Medal, Fleuroselect Novelty



Ellagance Ice Fleuroselect Quality Mark, Fleuroselect Novelty

Try Ellagance lavandula for a colour explosion in Plug & Play Combos like this!



Plug & Play XXL Combo Very Vesuvius, see page 239.



LAVANDULA 😑 Lavandula angustifolia

Avignon Early Blue

Height: 10 to 12 in./25 to 30 cm Spread: 9 to 11 in./23 to 28 cm

USDA Hardiness Zones: 6a to 8b (-10 to 15°F/-23 to -9°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 10 to 14 weeks (24 to 36 weeks overwintered)

 Grow early, grow easy, grow beautiful! This tight, well-branched and strong-stemmed plant shows deeper blue blooms earlier than similar English Lavenders. Grown as annual in the early cool season, Avignon Early Blue finishes about 2 weeks earlier than our Ellagance Purple and 1 week before the competition. Critical daylength is only 10 hours, like Ellagance Purple, but Avignon Early Blue grows better in



Lavance Deep Purple EU 48822

Ellagance Series

Height: 12 to 14 in./30 to 36 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 5b to 8b (-15 to 15°F/-26 to -9°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 10 to 14 weeks (24 to 36 weeks overwintered)

• Ellagance stands out from other seed and vegetative lavenders for its excellent uniformity, colour range, earliness and spike quality. • Outstanding branching fills pots quickly and finishes with large, dense flower spikes and very strong stems.

• Spreading and upright plants have rich grey-green foliage. Winter hardy, cold tolerant and durable performance; foliage holds up better compared to other lavenders.

• High uniformity means harvest times are short and comparable to any vegetative variety.

- Ships well; long-flowering in perennial beds and patio planters. Great as a garden plant and for
- drying and arranging. • Large, elegant flowers bloom all
- Summer and attract butterflies.



Avignon Early Blue

Lavance Deep Purple

Height: 10 to 12 in./25 to 30 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 9 to 11 weeks

- Produces the deepest purpleblue Summer colour with no bleaching, on the most controlled L. angustifolia available.
- The only well-bulked Summer English Lavender - does not break in shipping.
- Strong branching.
- 1 to 2 weeks earlier than Lavance Purple.

• Best for Summer production, longer days and higher temperatures. Can also be scheduled for traditional overwintering production with potting Weeks 28 to 32.

• Highly scented. Attracts bees and butterflies, but does not attract deer and rabbits.

cool conditions.

Ellagance Snow

Ellagance Pink

PERENNIALS / BLUE SPEAR

Use Blue Spear lavandula to create unique Plug & Play Combos like this!



NEW Plug & Play XXL Combo Date Knight, see page 239.

Blue Spear

Height: 11 to 13 in./28 to 33 cm Spread: 9 to 11 in./23 to 28 cm

USDA Hardiness Zones: 6a to 8b (-10 to 15°F/-23 to -9°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 11 to 15 weeks (24 to 36 weeks overwintered)

• The showiest English Lavender you can grow and sell! Blue Spear shows off bigger, taller spikes than any other seed lavender, with more upright flower stems that stand closer to each other for huge impact from a distance.

• Very easy to grow, with high uniformity, good habit and earliness (if grown with minimum 12-hour daylength).

• Bred for maximum show, Blue Spear is best used as a perennial in USDA Hardiness Zones 6a to 8b.

All your lavender needs in one place!

Blue Spear and Avignon Early Blue join the Ellagance series and Lavance Deep Purple to boost our regionally focused program and round out the *Lavandula angustifolia* assortment from Kieft Seed. Find detailed information in the regional Lavender Scheduling Tool at panamseed.com/ perennials.



Blue Spear



Blue Spear

PanAmerican Seed.



Bandera Purple, Pink, NEW Deep Purple and NEW Deep Rose Lavandula





Bandera Deep Rose Lavandula Fleuroselect Novelty

Bandera Deep Purple Lavandula



Bandera Purple Fleuroselect Gold Medal, Fleuroselect Novelty



Bandera Pink

LAVANDULA O Lavandula stoechas

Bandera Series

Height: 7 to 9 in./18 to 23 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 7a to 10b (0 to 35°F/-18 to 2°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 7 weeks Transplant to finish: 11 to 14 weeks (28 to 35 weeks overwintered, only in high light/low humidity areas)

• A true breeding breakthrough! The first professional-quality seed L stoechas series produces quality comparable to vegetative varieties.

• Compact to medium habit with good branching and uniformity – easily fills 4-in./10-cm pots to gallons.

• One to three weeks earlier to

flower than the competition. • Flowers heavily to almost cover

bort harvest window - fits bench

run programs.

• Long-flowering and self-cleaning with good secondary flush of flowers.

Holds dense, mounded habit in the garden without falling open.
A "Gateway to Gardening" variety for young shoppers - great nursery and grocery store impulse item, gift plant, indoor potted plant.

New Deep Purple Brings a unique, strong, deep purple colour from seed. It complements the series, offering the same strong colours found in vegetative varieties.

New Deep Rose The strongest rose colour from seed on the market! Habit and timing are a great match for the other Bandera varieties.

Purple 1 week later to flower than the rest of the series.

A breeding breakthrough!

As the first professionalquality seed *L. stoechas* on the market, Bandera is an excellent conversion opportunity from vegetative. This compact, bushy, nopinch plant has great flower power just 11 to 14 weeks from transplant, and its quick to finish compared to vegetative varieties. Plus, no pinch means less production time, making it an all-around perennial winner.

150 LAVANDULA Re

PERENNIALS / MADONNA



Spanish Eyes Lavandula

LAVANDULA O

Spanish Eyes

Height: 16 to 25 in./41 to 64 cm **Spread:** 20 to 30 in./51 to 76 cm

USDA Hardiness Zones: 7a to 10b (0 to 35°F/-18 to 2°C minimum temperatures)

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 10 to 12 weeks

• Fast-growing tender perennial/ annual variety flowers all Summer, right up until frost.

• Soft-textured and finely cut fernleaf foliage is topped by branched, 4-in./10-cm spikes that are beautiful in bud and stunning when blooms open.

• Free-flowering in pot and garden.

More uniform for more saleable plants

Send better-looking containers to retail with NEW Madonna! It offers better uniformity in height and habit over its seed counterparts, plus it's an excellent alternative to vegetative leucanthemum that doesn't need vernalisation or have a risk for bacterial infection. The result is picture-perfect containers on the bench and in the store.

LEUCANTHEMUM O Leucanthemum x superbum

New Madonna F1

Height: 8 to 10 in./20 to 25 cm Spread: 8 to 12 in./20 to 30 cm

USDA Hardiness Zones: 5a to 9a (-20 to 20°F/-29 to -7°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 10 to 14 weeks

• Madonna offers better uniformity in height and habit over the competition.

• Compact, first-year-flowering F1 shasta is an alternative to vegetative varieties that doesn't require vernalisation and has no risk of bacterial infection.

• Features excellent vigour and leaf quality for optimal finishing in quarts to large containers using multiple plugs.

 It also offers a reduced percentage of "too small" plants compared to standard seed varieties.

• With a larger percentage of saleable plants, Madonna requires less labour for harvesting and grading.

• Up to 15% of petals may have laced-edge petals for a unique look.



Madonna Leucanthemum Fleuroselect Gold Medal

Create striking Plug & Play Combos like this with NEW Madonna leucanthemum!



NEW Plug & Play XXL Combo Feeling Frisky, see page 238.

PERENNIALS / STARSHIP

Create breathtaking Plug & Play Combos like this with Starship lobelia!



NEW Plug & Play XXL Combo Summer Lovin', see page 239.



Starship Deep Rose

152



Starship Scarlet



Vulcan Red

LOBELIA O Lobelia x speciosa

Starship[™] Series F₁

Height: 20 to 24 in./51 to 61 cm Spread: 6 to 8 in./15 to 20 cm

USDA Hardiness Zones: 6a to 10b (-10 to 35°F/-23 to 2°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time (288 tray): Scarlet, 7 to 9 weeks; Deep Rose, 8 to 10 weeks

Transplant to finish: 13 to 17 weeks

Earlier flowering; improved branching; low stretch; uniform, controlled habit; and huge flower power assure a better-quality finished plant than the competition.
Good Summer crop for landscape programs - prefers higher temperatures, humidity and moisture.

• Good germination and plug yield.

• Versatile series works well from 5-in./13-cm pots to higher-value

1 and 2-gallon containers.

 Performs well in both annual and perennial combos.

• Attracts hummingbirds and butterflies.

Vulcan Red

Height: 24 to 32 in./61 to 81 cm Spread: 10 to 14 in./25 to 36 cm

USDA Hardiness Zones: 6a to 10b (-10 to 35°F/-23 to 2°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time: 8 to 10 weeks (288 tray) Transplant to finish: 14 to 19 weeks

 The first professional-quality alternative to Queen Victoria, Vulcan Red is full, well-branched and strong-stemmed, with a uniform and more controlled habit.
 Best for 2-gallon containers

and larger; can also be used for 1-gallon containers.

Rich red flowers and bronze

leaves are great for Autumn mixed combos.

ANNUAL LOBELIA See page 56.

PERENNIALS / MON AMIE



Mon Amie Pink Myosotis



Champagne Bubbles White Papaver

MYOSOTIS (FORGET-ME-NOT) • • Myosotis sylvatica

Mon Amie Series

Height: 8 to 10 in./20 to 25 cm **Spread:** 6 to 8 in./15 to 20 cm

USDA Hardiness Zones: 6a to 8b (-10 to 15°F/-23 to -9°C minimum temperatures) A First-Year-Flowering Perennial.

. . .

Seed supplied as: Raw

Plug crop time: 4 weeks Transplant to finish: 5 to 9 weeks

The Mon Amie series gets a second colour and a mix!
Send your crop to market 3 to 6 months earlier than biannual myosotis varieties, as no vernalisation is needed for flowering.

Can be a good choice for annual programs and can be reliably scheduled for Autumn or Spring.
Media/soil pH requirements are

similar to *Primula acaulis*. **New Pink** Has the same habit as

Mon Amie Blue, but the foliage is a bit lighter green, and first and 100% flowering is 2 to 3 days earlier.

New Mixture Combines Blue, NEW Pink and white (not available separately).



Mon Amie Mixture Myosotis



Champagne Bubbles Yellow Papaver



Champagne Bubbles Pink Papaver

NEPETA •••

Blue Moon Pink Cat

Height: 10 to 12 in./25 to 30 cm Spread: 10 to 12 in./25 to 30 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 10 weeks

Uniform strains produce large, dense flower spikes on full, bushy plants that flower early and then freely all season.
Well-suited to container production.
Give a colourful garden display in well-drained soil and take the heat.

ORNAMENTAL OREGANO Kirigami, page 65.



Mon Amie Blue Myosotis



Champagne Bubbles Orange Papaver



Champagne Bubbles Scarlet Papaver

PAPAVER O Papaver nudicaule

Champagne Bubbles Series F1

Height: 15 in./38 cm Spread: 6 in./15 cm

USDA Hardiness Zones: 4a to 8b (-30 to 15°F/-34 to -9°C minimum temperatures) A First-Year-Flowering Perennial.

A First-fear-riowening refermal.

Seed supplied as: Primed

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks

• Hybrid vigour delivers uniform flowers, earliness and long-lasting garden performance compared to O.P. varieties.

Many large, cup-shaped flowers top bushy, strong-stemmed plants.
Performs well in hot-day, coolnight conditions.

• Good Winter item in Florida, California and similar climates.

Also available: **Citrus Mixture** Orange, Yellow, White.





Blue Moon Nepeta



Pink Cat Nepeta Fleuroselect Quality Mark

PERENNIALS / CARILLO



Carillo Red Penstemon Fleuroselect Gold Medal, Fleuroselect Novelty



Carillo Purple Penstemon



Electric Blue Penstemon



Goldsturm Rudbeckia

PENSTEMON Penstemon heterophyllus

Electric Blue

Height: 18 in./46 cm Spread: 24 in./61 cm

USDA Hardiness Zones: 6a to 8b (-10 to 15°F/-23 to -9°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 12 to 13 weeks

• Good performer in warm climates, producing multiple stems with branched spikes holding intense blue flowers.

PENSTEMON O Penstemon x mexicali

Carillo Series

Height: 8 to 10 in./20 to 25 cm Spread: 10 in./25 cm

USDA Hardiness Zones: 5a to 7b (-20 to 5°F/-29 to -15°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 8 weeks Transplant to finish: 12 to 14 weeks

- Heat and drought-tolerant North American prairie plant.
- Well-branched plants are the most compact of any seed or vegetative varieties.

 Good shelf life; easy care and long flowering in landscapes and

containers.Flowers in early Summer.

RUDBECKIA O Rudbeckia fulgida var. sullivantii

Goldsturm

Height: 24 to 28 in./61 to 71 cm **Spread:** 14 to 18 in./36 to 46 cm

USDA Hardiness Zones: 3a to 9b (-40 to 25°F/-40 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Primed

Plug crop time: 6 to 8 weeks Transplant to finish: 20 to 24 weeks

- Superior seed quality compared
- to other Goldsturm strains. • Premium, late Summer-flowering perennial is considered "best in class" for landscapes.
- Upright plants produce a large, single, scentless bloom on every stem, over tight, dark green foliage.

PERENNIALS / BLUE STEEL



Patio Sky Blue Salvia Fleuroselect Quality Mark, Fleuroselect Novelty



Patio Deep Blue Salvia Fleuroselect QualityMark, Fleuroselect Novelty

SALVIA O Salvia patens

Patio Series

Height: 12 to 14 in./30 to 36 cm Spread: 8 to 12 in./20 to 30 cm

USDA Hardiness Zones: 8a to 10b (10 to 35°F/-12 to 2°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 6 weeks Transplant to finish: 7 to 11 weeks

With its excellent branching plant habit, Patio is more compact and richer flowering than similar strains.
Also works well as an annual.

• Well-suited to Summer containers and borders/beds.

• Series includes the most appealing deep blue colour on your bench.

It's as tough as... STEEL!

A perennial first: Now you can grow highquality, affordable Perovskia from professional-grade seed. Blue Steel has higher and much more uniform germination than other seed varieties so you'll grow top-notch plugs easily and efficiently. No vernalisation or overwintering is needed, so production time is slashed. And grown beside leading vegetative varieties, you can't see a difference.

PEROVSKIA *Perovskia atriplicifolia*

Blue Steel

Height: First year, 18 to 24 in./46 to 61 cm; second year and on, 30 to 36 in./76 to 91 cm Spread: First year, 14 to 22 in./36 to 56 cm; second year and on, 20 to 38 in./51 to 97 cm

USDA Hardiness Zones: 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 5 to 11 weeks Transplant to finish: 9 to 15 weeks

• Sturdy, controlled habit in the landscape is comparable to the vegetative leader.

Combines the best Summerblooming lavender-blue colour with outstanding late-season garden performance.
Aromatic, silvery foliage carries clouds of small blue flowers on strong silver stems that do not break or split easily.

• High flower show rate with 1 to 3 plugs per 1-gallon container or 3 to 5 per 2-gallon container.

It's affordable to use multiple plugs in each pot and always finish with huge retail appeal.

- Pinch for optimal branching.
- Heat/drought tolerant, very hardy.



Blue Steel Perovskia Fleuroselect Novelty

PERENNIALS / SALVATORE BLUE



Salvatore Blue Fleuroselect Novelty



Salvatore Blue

156



New Dimension Rose Improved



New Dimension Blue Fleuroselect Novelty

SALVIA O Salvia nemorosa

New Dimension[™] Series

Height: 8 to 10 in./20 to 25 cm **Spread:** 6 to 8 in./15 to 20 cm

USDA Hardiness Zones: 4a to 8b (-30 to 15°F/-34 to -9°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Coated

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 11 weeks

• The deepest blue and rose salvia from seed!

Economical and easy to produce.
Large, compact and wellbranched plants feature strongcoloured flowers that last in the landscape.

- Well-matched series finishes fast with no PGRs needed.
- Fits into annual production schedules.

New Rose Improved It's a win-win! Better germination and larger spikes than the previous Rose, with the same habit to match Blue.

New Salvatore Blue

Height: 10 to 12 in./25 to 30 cm Spread: 6 to 8 in./15 to 20 cm

USDA Hardiness Zones: 4a to 8b (-30 to 15°F/-34 to -9°C minimum temperatures)

Seed supplied as: Coated

Plug crop time: 5 to 6 weeks Transplant to finish: 8 to 10 weeks

- Premium-look salvia features the largest spikes and the deepest coloured calyx, spikes and flower in *Salvia nemorosa* from seed.
- A good seed alternative to vegetative salvia.

• More vigorous than New Dimension Blue, it is better suited for gallons.

• Features black stems on wellbranched plants.

Ideal for annual and

varieties.

overwintering production. • With a critical daylength of 10 hours, it is possible to finish for early Spring, which previously was only possible with vegetative

PERENNIALS / ROCCO RED

SAXIFRAGA 😑 Saxifraga x arendsii

Rocco Red

Height: 3 to 5 in./8 to 13 cm Spread: 3 to 5 in./8 to 13 cm

USDA Hardiness Zones: 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)

Seed supplied as: Pelleted

Plug crop time: 9 to 10 weeks Transplant to finish: 28 to 36 weeks

• More uniform plant size, shorter stems and less colour variability than Highland Red. • First professional-quality seed S. x arendsii on the market - an excellent conversion from vegetative varieties. Produces a vigorous, shortstemmed plant that fills the pot.

SCABIOSA 💛 🔍

Scabiosa columbaria

Blue Note

Height: 8 to 10 in./20 to 25 cm Spread: 8 to 10 in./20 to 25 cm

USDA Hardiness Zones: 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 8 weeks Transplant to finish: 12 to 14 weeks

 Uniform and compact, with no PGRs needed in production. • Long-flowering, basal-branching

plants have dense, dark green foliage and abundant, shortstemmed, clear blue flowers all season.

SCABIOSA 😑

Scabiosa japonica var. alpina

Pink Diamonds

Height: 8 to 10 in./20 to 25 cm Spread: 8 to 10 in./20 to 25 cm

USDA Hardiness Zones: 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Raw

Plug crop time: 6 to 8 weeks Transplant to finish: 13 to 15 weeks

 Good companion to Blue Note. • Plants maintain a perfect, wellbranched shape all season. Long-flowering with dense, rich dark green leaves.

SILENE Silene alpestris

Starry Dreams

Height: 6 to 8 in./15 to 20 cm Spread: 8 to 10 in./20 to 25 cm

USDA Hardiness Zones: 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 10 to 12 weeks

• Produces a compact, fresh green leaf cushion from which small, starshaped, upward-facing pure white flowers emerge. • Excellent for container production, with elegant finished quality.

VERBASCUM 😑 Verbascum x hybrida

Southern Charm

Height: 24 to 30 in./61 to 76 cm Spread: 12 to 18 in./30 to 46 cm

USDA Hardiness Zones: 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures) A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Florets are arranged in pairs,

doubling the life of the flower

• Plants bloom in Spring, go

and rebloom in Autumn.

VERBENA 💛 Verbena bonariensis

Buenos Aires

temperatures)

border.

dormant under high temperatures

Height: 40 to 50 in./102 to 127 cm Spread: 12 to 16 in./30 to 41 cm

USDA Hardiness Zones: 7a to 9b

(0 to 25°F/-18 to -4°C minimum

A First-Year-Flowering Perennial.

• Tall, free-flowering Verbena with open plant habit is grown primarily

as an annual and used as a pretty

accent plant or height divider in the

Seed supplied as: Primed

Plug crop time: 6 to 7 weeks Transplant to finish: 16 to 18 weeks

spike.

Plug crop time: 4 to 5 weeks Transplant to finish: 12 to 13 weeks

Blue Bouquet

variety.

VERBENA 😐 Verbena rigida

Santos Purple

Height: 12 in./30 cm Spread: 48 in./122 cm

USDA Hardiness Zones: tender

A First-Year-Flowering Perennial.

Transplant to finish: 11 to 13 weeks

perennial; 7a to 11 (0°F/-18°C minimum temperatures)

Seed supplied as: Primed

Plug crop time: 6 to 7 weeks

Kieft Seed offers the first

high-yield primed seed form of

Santos Purple - count on reliable

availability, high germination and

• One of the best tough and

performance in cool climates.

• Compact and upright, well-

• Good in baskets and combo

tolerant, plus exceptional

through Summer.

ANNUAL VERBENA

planters, too.

See page 113.

VERONICA 😑

Veronica spicata

excellent plug yield for this popular

long-lasting landscape perennials

available - very heat and drought

branched plants bloom late Spring

• High powdery mildew resistance.

Height: 12 in./30 cm Spread: 12 in./30 cm

USDA Hardiness Zones: 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures)

A First-Year-Flowering Perennial.

Seed supplied as: Pelleted

Plug crop time: 5 to 6 weeks Transplant to finish: 14 to 16 weeks

 Versatile perennial bedding plant makes an excellent choice for landscapes.



Rocco Red Saxifraga





Blue Note Scabiosa



Starry Dreams Silene elect Novelty



Santos Purple Verbena

Blue Bouquet Veronica



Southern Charm Verbascum

Verbena

PERENNIALS

Pink Diamonds Scabiosa Fleurose Quality Mark Fleuroselect Novelty

NUMBER 1 FOR SEED

NEW COLORBLOOM™ BICOLOR ORANGE YELLOW GERBERA

We've got the most uniform potted gerbera series on the market that also offers the best performance for consumers. See page 172.

NEW CONCERTINA™ YELLOW CELOSIA

Place these brightly coloured potted plants in a sunny spot on your desk, kitchen counter or patio. See page 160.

FRESH BITES ORANGE EDIBLE POTTED PEPPER

Brings bright colour and a tasty snack to indoor and outdoor spaces. See page 163.

PanAmerican Seed.

POTTED PLANTS

POTTED PLANTS

SPARKING NEW INTEREST IN PLANTS

These "Gateway to Gardening" plant varieties are designed to attract today's young shopper and soon-tobe gardener. We've opened the door for growers and consumers alike to our **outstanding genetics** in a **unique assortment** of gift plants, indoor décor and outdoor patio tabletoppers. Here you'll find **key potted plant classes**, like gerbera, ornamental peppers and compact sunflowers, in one comprehensive collection.



POTTED PLANTS / CONCERTINA



NEW

Concertina Red

Concertina Red, Yellow & Purple



Concertina Pink



Concertina Red Dark Leaf



Kosmo Yellow



Kosmo Cherry



Kosmo Pink US PVP 200400022



Kosmo Purple Red Fleuroselect Novelty



Concertina Pink



Concertina Yellow

CELOSIA 🕘 🌗 Celosia cristata

New Concertina™ Series

Height: 8 to 10 in./20 to 25 cm Spread: 6 to 8 in./15 to 20 cm

Seed supplied as: Coated

Plug crop time: 3 to 4 weeks Transplant to finish: 4 to 6 weeks

• Concertina is best for use as an indoor potted plant and in a sunny spot outdoors on the patio.

• This compact pot cristata has the widest colour range on the market. **New Pink** Slightly more vigorous than the rest of the series.

New Purple Dark purple.

New Red Rich, velvety red with a traditional green leaf.

New Red Dark Leaf More vigorous compared to the rest of the series.

New Yellow Slightly later to flower compared to the rest of the series. Can be more than one week in long days.

New Mixture Pink and Red Dark Leaf in the mix are slightly more vigorous compared to the rest of the series.

Series	No. of Varieties	Recommend pot size
New Concertina Series	5 & 1 mix	4-4.5 in./10-11 cm, Quart
Kosmo Series	5 & 1 mix	4-4.5 in./10-11 cm, Quart



Concertina Red



Concertina Purple

CELOSIA 😑 Celosia spicata

Kosmo Series

Height: 8 in./20 cm Spread: 8 to 10 in./20 to 25 cm

Seed supplied as: Coated

Plug crop time: 3 to 4 weeks Transplant to finish: 9 to 11 weeks

• Genetically dwarf series for year-round pot and pack programs needs no PGRs or pinching.

 Produces a main stem at the base with many side spikes; flower heads top well-proportioned leaves.

• Short production time, long retail shelf life and excellent garden performance.

FOLIAGE BEGONIA

Gryphon, see page 18. CAMPANULA Rapido Series, page 140.



Kosmo Salmon

Kosmo Mixture





POTTED PLANTS / CAMPANELLA











Pink





CAMPANULA 😑 Campanula medium

New Campanella[™] Series F1

Height: 8 to 10 in./20 to 25 cm Spread: 8 to 9 in./20 to 23 cm

Seed supplied as: Pelleted

Plug crop time: 6 to 7 weeks Transplant to finish: 7 to 10 weeks

• The new Campanella Series features larger blooms and includes a unique lavender colour. • The more vigorous plants are suitable for larger pots.

- Fills pots better with more flowers.
- Around one week later to flower than other campanula on the market.

Series	No. of Varieties	Recommend pot size
New Campanella	3	4-4.5 in./10-11 cm, Quart







Hot Burrito





Hot Joker

CAPSICUM (INDOOR/ OUTDOOR PEPPER) Capsicum annuum

Seed supplied as: Raw

- Unique assortment is bred for
- Solution times.
 Compact growth means no PGRs are needed.
- Good retail shelf life.
- Excellent indoor/outdoor performance.



Hot Lemon



Hot Tomato



Edible Potted Peppers								
Variety	Fruit colour	Plug crop time (weeks)	Potting to sale (weeks)	Pot size	Fruit size	Height		
SALES PERIOD: F	SALES PERIOD: FEBRUARY TO SEPTEMBER							
Adobo	Red	3-4	14-16	5-7.5 in./13-19 cm	1 x 4.5 in./3 x 12 cm	12-14 in./30-36 cm		
Cosmo	Purple	3-4	16-18	5-7.5 in./13-19 cm	0.75 x 2 in./2 x 5 cm	10-12 in./25-30 cm		
Hot Burrito	Red	3-4	14-16	4.5-7.5 in./12-19 cm	0.75 x 4 in./2 x 10 cm	10-12 in./ 25-30 cm		
Hot Fajita	Red	3-4	14-16	4.5-8 in./12-20 cm	0.5 x 4 in./1.5 x 10 cm	10-12 in./25-30 cm		
Hot Joker	Red	3-4	14-16	4.5-6 in./12-15 cm	0.5 x 4 in./1.5 x 10 cm	12-14 in./30-36 cm		
Hot Lemon	Yellow	3-4	15-17	5-8 in./13-20 cm	0.5 x 1 in./1.5 x 3 cm	12-14 in./30-36 cm		
Hot Tomato	Red	3-4	15-17	5-8 in./13-20 cm	1.5 x 1.5 in./4 x 4 cm	10-12 in./ 25-30 cm		
Piñata	Red	3-4	14-16	4.5-6 in./12-15 cm	0.3 x 2.25 in./1 x 6 cm	8-10 in./20-25 cm		

PanAmerican Seed.



Taquito





Tamale

Yellow Tomato



Fresh Bites Yellow, Fresh Bites Red and Fresh Bites Orange



Fresh Bites Yellow

Edible Potted Peppers								
Variety	Fruit colour	Plug crop time (weeks)	Potting to sale (weeks)	Pot size	Fruit size	Height		
SALES PERIOD: FE	SALES PERIOD: FEBRUARY TO SEPTEMBER							
Tamale	Red	3-4	14-16	4.5-6 in./12-15 cm	0.75 x 2 in./2 x 5 cm	6-8 in./15-20 cm		
Taquito	Red	3-4	15-17	3.5-4.25 in./9-11 cm	0.3 x 1.5 in./1 x 4 cm	4.5-6 in./12-15 cm		
Yellow Tomato	Yellow	3-4	15-17	5-8 in./13-20 cm	1.5 x 1.5 in./4 x 4 cm	12-14 in./30-36 cm		
SALES PERIOD: MAY TO SEPTEMBER								
Fresh Bites Series	Orange, Red, Yellow	3-4	15-17	5-6.5 in./13-17 cm	1.25 x 2.25 in./3.5 x 6 cm	12-14 in./30-36 cm		





Chilly Chili All-America Selections National Winner US 7,087,819 and 7,393,995



Ornamental Peppers

Acapulco Acapulco Purple

Orange





Acapulco Red





Acapulco Yellow

Coba

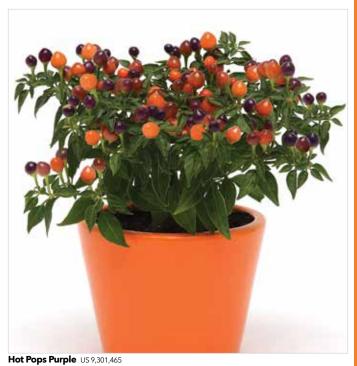
Plug crop time (weeks) Potting to sale Pot size Height Variety Fruit size (weeks) SALES PERIOD: JULY TO OCTOBER 3-4 12-13 4.25 x 5 in./11-13 cm 0.5 x 1.5 in./1.5 x 4 cm 6 in./15 cm Acapulco[™] Series Multicolor, Orange, Purple, Red, Yellow 3 ppp: 6.5-8 in./17-20 cm 7-13 for 0.75 x 2.25 in./2 x 6 cm 4-8 in./10-20 cm Blaze Yellow 4-5 Quart Autumn finish to red Compact determinate variety with distinctive, large fruit and excellent branching should be sold at first colour or with a few fruit changing to red - these eye-catching Autumn tones are sure to sell fast! Perfect for quart and Mum Pals programs, plus Autumn mixed containers. NOTE: Fruit has medium heat. 4-6 in./10-15 cm 2-2.5 in./5-6 cm 9-10 in./23-25 cm Chilly Chili F1 4-5 7-13 for Yellow-green to orange to dark red Autumn finish

Child-safe, non-pungent fruit - ideal for indoor and outdoor use in public and residential areas. F1 vigour makes it excellent for containers and gardens.

Overall plant size is about 30% larger than Medusa, with similar crop time

overall plant size is about 50% larger and meedsa, war similar crop and.						
CobaBlack to red3-412-						





Hot Pops Yellow US 9,307,712





Cupala

Harlequin







Masquerade

Ornamental Peppers							
Variety	Fruit colour	Plug crop time (weeks)	Potting to sale (weeks)	Pot size	Fruit size	Height	
SALES PERIOD: JU	SALES PERIOD: JULY TO OCTOBER						
Cupala	Lime to red	3-4	11-12	4-4.5 in./10-12 cm	0.3 x 2.75 in./1 x 7 cm	4.5 in./12 cm	
Harlequin	Multicolour	3-4	13-14	4.5-6 in./12-15 cm	0.5 x 0.75 in./1.5 x 2.5 cm	8 in./20 cm	
Hot Pops Series	Purple, Yellow	4-5	7-13 for Autumn finish	Quart	0.4/1 cm round	4-5 in./10-13 cm	

Pump up your Autumn potted plant sales with an unusual fruit form and multicolours! Small, round peppers show multiple colours simultaneously to make a high-impact display for outdoor and indoor decorating. Compact, heavily branched plants with determinate growth. Perfect for quart and Mum Pals programs, plus Autumn mixed containers. NOTE: Fruit is very hot on Hot Pops Purple, and medium hot on Hot Pops Yellow.

Joker	Red	3-4	11-12	2.75-4.5 in./7-12 cm	0.3 x 1.5 in./1 x 4 cm	4.5 in./12 cm
Masquerade	Purple and orange to red	4-5	7-12 for Autumn finish	Quart, 4-8 in./10-20 cm	0.3 x 1.5 in./1 x 4 cm	10-12 in./25-30 cm

Tapered fruit in multicolours - appear purple and orange, then mature to red. Good for use in containers and gardens.

NOTE: Fruit is hot.









Salsa XP Mixture







Salsa XP Yellow-Red

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Ornamental Peppers



Salsa XP Purple



Salsa XP Red



Salsa XP Deep Orange

Plug crop time (weeks) Variety Potting to sale Height (weeks) SALES PERIOD: JULY TO OCTOBER Wicked Purple to red 4-5 7-13 for Quart 1 x 2.75 in./3 x 7 cm 6-8 in./15-20 cm Autumn finish Compact plants show extra-large fruit that will certainly capture retail attention! Determinate variety should be sold at first colour or with a few fruit changing to red. Perfect for quart and Mum Pals programs, plus Autumn mixed containers. NOTE: Fruit has mild heat. Black to bronze 3-4 12-13 4-5 in./10-13 cm 0.3 x 1.5 in./1 x 4 cm 4.5 in./12 cm Paracho Cream to orange to 4-5 7-11 for Quart, 4-8 in./10-20 cm 2 in./5 cm 10-12 in./25-30 cm **Red Missile** Autumn finish bright red Compact plants are good for containers and gardens. NOTE: Fruit is hot. 4-5 2.25-4.25 in./6-11 cm 0.3 x 1 in./1 x 3 cm 4 in./10 cm **New Salsa Purple Yellow** 12-13 Salsa XP Deep Orange, Purple, 3-4 12-13 2.25-4.25 in./6-11 cm 0.3 x 1 in./1 x 3 cm 4 in./10 cm Red, Yellow, Yellow-Red, Mixture





Samba Yellow



Medusa US PVP 200000140; US 7,087,819 and 7,393,995



Zamora Orange



Santos Yellow



Santos Orange



Zamora Red





Plug & Play Combo NEW Firelighter, see page 237.







Santos Flare

Ornamental Pe	Ornamental Peppers							
Variety	Fruit colour	Plug crop time (weeks)	Potting to sale (weeks)	Pot size	Fruit size	Height		
SALES PERIOD	SALES PERIOD: JULY TO OCTOBER							
Samba	Dark Orange, Orange, Red, Yellow, Mixture	3-4	14-15	4-5 in./10-13 cm	0.75 x 1.5 in./ 2.5 x 4 cm	6 in./15 cm		
Samba XL	Dark Orange, Orange, Yellow	3-4	14-15	4-5 in./10-13 cm	1 x 2 in./3 x 5 cm	4.5-6 in./12-15 cm		
Santos	Flare, Orange, Yellow	3-4	12-13	4-4.5 in./10-12 cm 3 ppp: 6.5-7.5 in./17-19 cm	0.3 x 2 in./1 x 5 cm	6 in./15 cm		
Medusa	lvory to yellow to orange to bright red	4-5	7-13 for Autumn finish	4 in./10 cm	2-2.5 in./5-6 cm	6-8 in./15-20 cm		

Child-safe, non-pungent fruit is colourful and twisted. Naturally dwarf, well-branched plants have dark foliage. A single plant can produce 40 to 50 fruits, displaying the entire colour range at once. Holds fruit well, allowing for great shelf life and long sales period.

POTTED PLANTS / EXACUM



Princess White



Royal Dane Deep Blue



Royal Dane White



Princess Deep Blue

EXACUM 😑 Exacum affine

Plug crop time: 5 to 6 weeks Transplant to finish: Varies by variety

Seed supplied as: Pelleted

- Low cost and fast production.
 Perfect crop for Summer production.
 Long-lasting flowers have a sweet fragrance.
 Extremely good shelf life.
 Sales period: March to October.

Variety	Colour	Potting to sale (weeks)	Pot size	Height
Princess Series	Deep Blue, White	10-12	4-5 in./ 10-13 cm	4.5-6 in./ 12-15 cm
Royal Dane Series	Deep Blue, Deep Rose, White	10-12	2.25-5 in./ 6-13 cm	4.5-6 in./ 12-15 cm

POTTED PLANTS / MEGA REVOLUTION



Scarlet Red with Light Eye



Rose with Light Eye



Salmon Rose with Light Eye

GERBERA • Gerbera jamesonii

Mega Revolution™ Series F1

Height: 6 to 10 in./15 to 25 cm Spread: 12 to 14 in./30 to 36 cm Flower size: 4 to 5 in./10 to 13 cm

Seed supplied as: Coated

Plug crop time: 6 to 7 weeks Transplant to finish: 8 to 10 weeks

- Produces manageable, larger-sized plants with very large flowers - beats competing series for colour range, bloom size and seed quality.
- Ideal for larger container programs.
- Supplied with industry-leading seed quality.

New Bright Orange with Light Eye One of the fastest varieties in the series and one with the largest flowers.



Bright Red



NEW Bright Orange with Light Eye



Watermelon

Bright Red Contains a mix of dark and light eyes.

New Bright Rose with Dark Eye Smaller flowers and slightly taller compared to the series average.

Deep Rose with Light Eye Superior dark colour is great for mixes and combo pots. Colour holds very well under high light levels.

Salmon Rose with Light Eye High percentage of double-petalled blooms.

Scarlet Red with Light Eye Largest flowers on the market; best red variety in the series.

White with Light Eye Cleaner white colour than the competition.

Yellow with Dark Eye Best darkeyed yellow gerbera on the market. Select Mixture Uniform mix of bold, bright colours.



NEW Bright Rose with Dark Eye



Orange with Light Eye

Yellow with Dark Eye





Orange with Dark Eye



White with Light Eye



Bright Orange with Light Eye

Select Mixture



POTTED PLANTS / REVOLUTION



Revolution Deep Pink with Light Eye

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Bicolor Rose White

GERBERA continued

Revolution™ Series F1

Height: 4 to 8 in./10 to 20 cm **Spread:** 10 to 12 in./25 to 30 cm **Flower size:** 3 to 4 in./8 to 10 cm

Seed supplied as: Coated

Plug crop time: 6 to 7 weeks Transplant to finish: 8 to 10 weeks

• When it comes to uniformity of flowering window across a complete colour range, Revolution is the leading standard-size pot gerbera.

 Industry-leading seed quality.
 Better second flush of flowers than the competition assures much longer bloom time for the consumer.

• Best for 5-in./13-cm pots. **Bicolor Red Lemon** Unique bicolour in gerberas.

New Deep Pink with Light Eye Replaces Pink with Light Eye with a deeper pink colour.

Salmon Shades with Light Eye Features short stems, making it a good mix component, with shades from deep salmon to pink.

Bicolor Mixture *Available in North America only.* Includes all four bicolour varieties.

Select Mixture Uniform mix of bold, bright colours.

PROGRAM STANDOUTS

Make sure you include these sure-fire sellers in your Revolution Gerbera program! Bicolor Red Lemon Bicolor Red White Bicolor Rose White Bicolor Yellow Orange Bright Rose with Light Eye Golden Yellow with Light Eye Orange with Light Eye Red with Light Eye Red with Dark Eye White with Light Eye Select Mixture

Hit your schedule

every time

POTTED PLANTS / REVOLUTION



Bicolor Mixture



Red with Light Eye



Bright Rose with Light Eye



Yellow with Light Eye



NEW Deep Pink with Light Eye



Salmon Shades with Light Eye



Bicolor Red Lemon



Bicolor Rose White



Select Mixture



Orange with Light Eye



Red with Dark Eye



White with Light Eye



Bicolor Yellow Orange



Bicolor Yellow Orange



Pastel Orange



Golden Yellow with Dark Eye



Bicolor Red White

POTTED PLANTS / COLORBLOOM



ColorBloom Deep Rose with Light Eye

Series	No. of Varieties	Recommend pot size
Mega Revolution	12 & 1 mix	6 in./15 cm
Revolution	14 & 1 mix	5 in./13 cm
New ColorBloom	5 & 1 mix	Quart/11 cm



Mega Revolution Watermelon, Revolution Bicolor Yellow Orange and NEW ColorBloom Cherry with Light Eye Gerbera

Stays tidy for smaller pots

NEW ColorBloom stays compact, so it won't get too full or leafy, allowing the colourful blooms to show through in quarts/ 11-cm pots. Faster to flower by around 10 days, ColorBloom beats the competition to market. First-time plant buyers will love the exciting, non-fading colours and easy care of this indoor/outdoor plant

GERBERA continued

ColorBloom[™] Series F₁

Height: 4 to 6 in./10 to 15 cm Spread: 6 to 8 in./15 to 20 cm Flower size: 3 to 4 in./8 to 10 cm

Seed supplied as: Coated

Plug crop time: 6 to 7 weeks Transplant to finish: 6 to 10 weeks

• The ColorBloom Series is specially designed for the quart/ 11 cm retail market.

• ColorBloom is the most uniform series on the market, with the best performance for consumers.

• The series is around 10 days faster to flower than competitors.

• More uniform with a shorter flower window.

It has a higher amount of usable plants due to better seed quality.
Offers a compact plant habit that

requires less to no PGRs.

• Series holds its colour better and won't fade in high light.

New Bicolor Orange Yellow

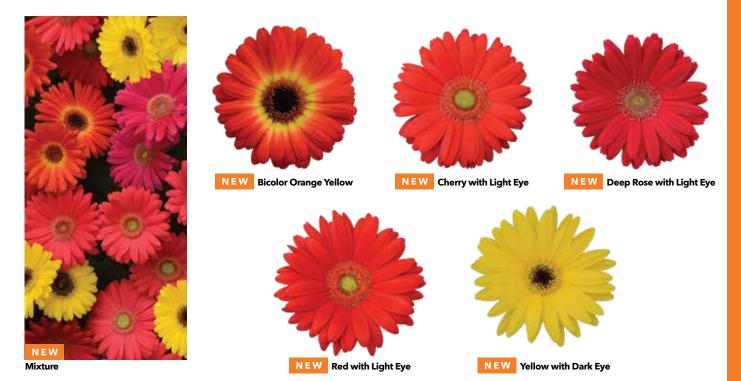
Around one week later to flower compared to other varieties in the series.

New Cherry with Light Eye Can show more red under higher light conditions.

New Yellow with Dark Eye Slightly smaller flowers than the rest of the series.

New Mixture Contains all 5 varieties.

POTTED PLANTS / COLORBLOOM





Yellow with Dark Eye, Bicolor Orange Yellow & Red Light Eye

POTTED PLANTS / SPLASH SELECT



Sapphire Blue Lisianthus



Sapphire White Lisianthus



Sapphire Blue Chip Lisianthus



Sapphire Blue Lisianthus



Sapphire Pink Rim Lisianthus



Splash Select White Hypoestes



Splash Select Pink Hypoestes

HYPOESTES • Hypoestes phyllostachya

Splash Select[™] Series

Height: 4 to 6 in./10 to 15 cm Spread: 12 to 14 in./30 to 36 cm

Seed supplied as: Raw

Plug crop time: 4 to 5 weeks Transplant to finish: 6 to 7 weeks

• The grower's choice for mass market pot production, with excellent shipping tolerance and shelf life.

- Crop time can be reduced by planting multiple-sown young plants in each pot.
- Heat tolerant and shade tolerant.
 Can be used as an indoor plant or offered with other bedding annuals.

• The garden height for this plant is 10 to 18 in./25 to 46 cm; the height listed is potted height.



Splash Select Red Hypoestes



Splash Select Rose Hypoestes

LISIANTHUS O Eustoma grandiflorum

Sapphire Series F1

Height: 5 to 6 in./13 to 15 cm Spread: 4 to 6 in./10 to 15 cm

Seed supplied as: Pelleted

Plug crop time: 8 to 10 weeks Transplant to finish: 12 to 16 weeks

- Our most compact series for indoor plant use.
- Extremely well-branched.
- Single plug in 4-in./10-cm or multi-plant in larger container.
- ORNAMENTAL MINT

Mini Mint, see page 65.

Series	No. of Varieties	Recommend pot size
Splash Select Hypoestes	4	Cell Pack, 3 ppp: 4-4.5 in./ 10-12 cm, Quart
Sapphire Lisianthus	4	4-4.5 in./10-12 cm, Quart

PanAmerican Seed.

POTTED PLANTS / SUNBUZZ



Choco Sun



Miss Sunshine

SUNFLOWER Helianthus annuus

Choco Sun

Height: 10 to 12 in./25 to 30 cm **Spread:** 12 to 14 in./30 to 36 cm

Seed supplied as: Treated

Plug crop time: 2 to 3 weeks Transplant to finish: 8 to 9 weeks

• Very compact, well-branched plants set a large bloom on the central stalk, with several smaller flowers on side shoots.

• Excellent uniformity and earliness allow for easy scheduling and deliver a high yield of saleable plants.

• Ideal for containers, window boxes and gardens.

Miss Sunshine F1

Height: 10 to 16 in./25 to 41 cm **Spread:** 6 to 8 in./15 to 20 cm

Seed supplied as: Treated

Plug crop time: 2 to 3 weeks Transplant to finish: 7 to 8 weeks

• Dwarf, golden yellow sunflower is easy and economical to produce, needing fewer PGRs and flowering at a shorter height under short days.

• Pollen-free plants have 3 to 4-in./ 8 to 10-cm blooms with a fast flush

of secondary flowers.

• Perfect for mixed and mono planters.

More colour = repeat sales!

Meet the pot sunflower they'll want again and again. SunBuzz keeps pumping out more blooms, thanks to the big show of secondary flowers. On the production end, SunBuzz lets you grow and sell a compact plant with fewer PGRs, so you send a goodlooking and costeffective product off to market.

SunBuzz F1 🔍 🕒

Height: 12 to 20 in./30 to 51 cm **Spread:** 8 to 12 in./20 to 30 cm

Seed supplied as: Treated

Plug crop time: 2 to 3 weeks Transplant to finish: 6 to 8 weeks

Clear, yellow-filled flowers make SunBuzz a real standout!
Compact, smaller-leafed plants are more manageable and programmable on the bench, and more appealing in the store.
Delivers better seed uniformity

and needs fewer PGRs than similar varieties.Fast flowering and a compact

• Fast flowering and a compa habit.

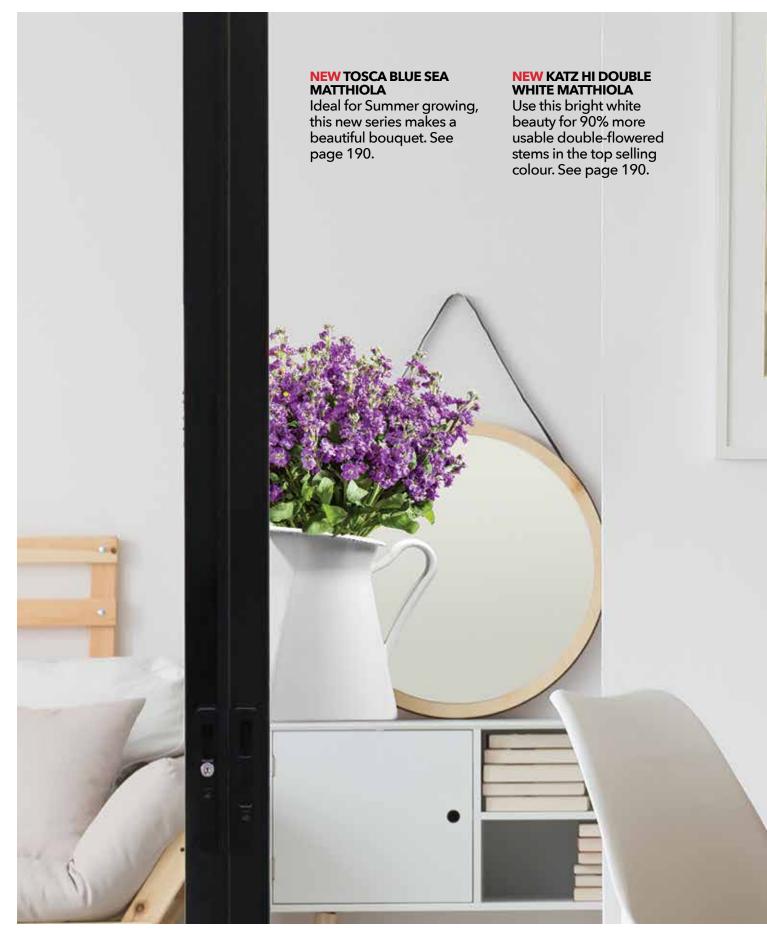


SunBuzz



SunBuzz

Series	Recommend pot size
Choco Sun	5-6 in./13-15 cm, Gallon
Miss Sunshine F1	4.5-5 in./12-13 cm/Quart/11 cm
SunBuzz F1	5-6 in./13-15 cm, Gallon



PanAmerican Seed.

CUT FLOWERS

CONSISTENT QUALITY IN CUTS

For more than 50 years, we've earned our reputation for innovative breeding and the ability to consistently supply professional seed quality for commercial cut flower growers around the world. We partner with you to lower production costs, increase yields and successfully grow hundreds of cut flower varieties. Plus, these flowers ship and store exceptionally well to help florists create better arrangements for ultimate consumer satisfaction.



CUT FLOWERS / MONA LISA



Mona Lisa Deep Blue Improved Anemone



Mona Lisa Scarlet Eye Anemone



 With the second secon

Red Anemone

Mona Lisa White Anemone



Silky Gold Asclepias Fleuroselect Quality Mark



Mona Lisa Pink Anemone



Mona Lisa Wine White Bicolor Anemone



Grenade Orange Carthamus



Silky Deep Red Asclepias Silky Mixture Asclepias



Mona Lisa Mixture Anemone

ANEMONE **•** Anemone coronaria

Mona Lisa® Series F1

Height: 18 in./46 cm

Seed supplied as: Raw

Planting density: 2 to 4 plants/ft.² (22 to 44 plants/m²)

Best For: Greenhouse, high tunnel **Plug crop time:** 8 weeks

Transplant to finish: 12 weeks

• A masterpiece among anemones: Mona Lisa puts out up to 18 flowers per plant...flowers under lower Winter light levels... doesn't need staking, netting or disbudding.

• 4 to 4.5-in./10 to 12-cm blooms top sturdy 18-in./45-cm stems that are ideal for cutting and design work.

• Well-suited for young plant production from March to April sowing.

• Low temperatures (46 to 54°F/ 8 to 12°C) promote optimum stem length for cut flower production.

New Deep Blue Improved Offers improved germination for more reliable supply. More uniform hybrid than the original for improved efficiencies in cut flower production. ASCLEPIAS O Asclepias curassavica

Silky Series

Height: 24 to 28 in./61 to 71 cm

Seed supplied as: Raw

Planting density: 3 to 4 plants/ft.² (32 to 40 plants/m²) Best for: Greenhouse, high tunnel, field

Plug crop time: 4 to 5 weeks Transplant to finish: 11 to 12 weeks

• High-quality series is bred for greenhouse and outdoor Summer production and prefers a warm, rather dry location.

CARTHAMUS

Carthamus tinctorius

Grenade Orange

Height: 32 to 40 in./81 to 102 cm

Seed supplied as: Coated

Direct sow to finish: 10 to 16 weeks

- Features round, thornless leaves and round flower buds atop stems of uniform length.
- Best grown as a direct-sown crop.
 Useful for indoor and outdoor professional cut flower production programs for fresh and dried use; can also be used green when harvested young.



CUT FLOWERS / CAMPANA



Campana Deep Blue Improved Campanula

CAMPANULA 😑 Campanula medium

Campana Series F1

Height: 30 to 34 in./76 to 86 cm

Seed supplied as: Pelleted

Planting density: 6 to 8 plants/ft.² (64 to 80 plants/m²) Best for: Greenhouse

Plug crop time: 7 to 8 weeks Transplant to finish: 10 to 14 weeks

• Top-quality professional cut flower series is a low-energy crop, suitable for Summer or Winter production. See the Product Information Guide at panamseed.com for daylength requirements.

• Well-matched across the series for timing and habit, Campana delivers excellent uniformity.

• 100% top-flowering with strong stems and good foliage.

New Deep Blue Improved Largeflowered, deep blue campanula fits the series for timing, and is the best-quality variety in the series, plus it features good vase life.

Focal

These are the largest blooms in the arrangement...the varieties that make customers go "aah!" Be sure to ch<u>eck out</u> our centre-of-attention Jua sunflowers and lisianthus.

Filler

These transitional varieties flowers on a single stem or flower head, and are used the Focal and Line flowers. Examples include dianthus and trachelium.

Line

These showy flowers add height and width to the arrangements, and are used to define the shape and direction. Many – like feature flowers held close to the stem.

Volume

Secondary to the focal flowers, blooms like matthiola burst of colour and add







Campana Pink Campanula

Campana Lilac Campanula

	Campanula								
FLORAL SELECTION GUIDE FOR BOUQUETS									
Class/Variety	Page	Focal	Filler	Line	Volume				
ANEMONE									
Mona Lisa Series	178	Х							
ASCLEPIAS									
Silky Series	178		Х						
CAMPANULA									
Campana Series	179		Х		Х				
CARTHAMUS			~~~~						
Grenade Orange	178		Х		х				
CELOSIA	170		~		~				
Bombay Series	180	Х							
Celway Series	183	~~~~~	Х						
Neo Series	181	Х	~						
Spring Green	180	X							
Sunday Series	182	~	Х	х	х				
DELPHINIUM	102		~	~	~				
	140			V					
Blue Donna Guardian Series				X					
	140			Х					
DIANTHUS	100		V		X				
Amazon Series	183		X		X				
Sweet Series	184		Х		Х				
GOMPHRENA									
Fireworks	46		Х						
QIS Series	46		Х						
LIMONIUM									
QIS Series	185		Х						
LISIANTHUS, DOUBLE									
ABC Series	186	Х							
Flare Series	185	Х			Х				
MATRICARIA									
Vegmo Series	188		Х		Х				
MATTHIOLA									
Aida Series	188			Х	Х				
Column Stock	189			Х	Х				
Figaro Series	188			Х	Х				
Katz Series	191			Х	Х				
New Katz Hi Double White	190			х	х				
Mathilda Series	188			Х	Х				
Opera Series	188			X	X				
New Tosca Series	190			X	X				
SNAPDRAGON	-								
Cool Series	196			Х					
Early Potomac Series	194			X					
Maryland Series	192			X					
Monaco Series	193			X					
Potomac Series	194			X					
Purple Twist	196			X					
Red Delilah	196			X					
SUNFLOWER	170			~					
Jua Series	197	Х							
TRACHELIUM	177	~							
Lake Forest Purple	198		Х						
Lake Michigan Series	198		X						

CUT FLOWERS / BOMBAY





Bombay Bronze



Bombay Green



Bombay Purple Fleuroselect Gold Medal



Spring Green



Bombay Pink







Bombay Fiora

CELOSIA Celosia cristata (Cockscomb)

Bombay Series 🌖

Height: 28 to 40 in./71 to 102 cm

Bombay Firosa

Seed supplied as: Coated Planting density: 6 to 8 plants/ft.²

(64 to 80 plants/m²) Best for: Greenhouse

Plug crop time: 2 to 3 weeks Transplant to finish: 10 to 14 weeks

- Full colour assortment with programmable production - good for economical, high-density programs.
- High yields, strong stems and few off-shoot flowers.
- Flowers hold colour well and are
- well-suited to dried use.



Bombay Cherry



Bombay Fire



Bombay Fivio

Spring Green 🌖

Height: 40 to 48 in./102 to 122 cm

Seed supplied as: Coated

Planting density: 6 to 8 plants/ft.² (64 to 80 plants/m²) Best for: Greenhouse

Plug crop time: 2 to 3 weeks Transplant to finish: 12 to 16 weeks

- High percentage of saleable stems.
- Easy to program for year-round sales.
- Uniform plant habit with strong, round stems for easy harvesting and good shippability.







CUT FLOWERS / NEO

Grow your margin, grow your sales

Neo lets you grow over a longer period through the year... harvest more usable stems from every ft²/ m²...ship out betterquality *C. cristata*...and give florists a product that's easier to arrange and easier to sell.

Neo[™] Series ●

Height: 28 to 40 in./71 to 102 cm

Seed supplied as: Coated Planting density: 6 to 8 plants/ft² (65 to 86 plants/m²) Best for: Greenhouse

Plug crop time: 2 to 3 weeks Transplant to finish: 8 to 12 weeks

• Less long day sensitive, making it easier to produce over a longer period during the year for most growers.

• Features new, unique colours and a much better leaf habit.

• Produces larger flowers with a

thicker comb than Bombay.

• Easier to work with for bouquets or flower arrangements due to smaller leaves.

Gold Deepest yellow colour available on the market. NOTE: More sensitive to Fusarium wilt compared to the rest of the series.

Orange Unique colour to the market will stir up interest for growers, retailers and florists.

Pink The fastest to flower of the series and the only dark-stemmed variety, with a slightly smaller bloom.

Red The slowest to flower and also a bit shorter compared to the rest of the series.

Rose The tallest of the series, with a more rose colour, bigger flower heads and lighter green stems than Pink. Also slower to flower than Pink.

Rose EU 43693



Gold EU 46508



Orange EU 44055



Pink EU 43694



Red EU 46509



3693



Neo Orange EU 44055

CUT FLOWERS / SUNDAY





Sunday Bright Pink



Sunday Orange



Sunday Dark Pink



Sunday Cherry



Sunday Wine Red Sunday Gold



Celway Purple





Celway Terracotta



Celway Lemon



Celway White



Celway Salmon

CELOSIA 😑 Celosia plumosa

Sunday[™] Series

Height: 28 to 40 in./71 to 102 cm

Seed supplied as: Coated

Planting density: 6 to 8 plants/ft.² (64 to 80 plants/m²)

Best for: Greenhouse, high tunnel

Plug crop time: 2 to 3 weeks Transplant to finish: 12 to 16 weeks

- First professional cut version of
- the popular plume-shaped celosia. • Full plumes and long, strong
- stems enhance high-end retail mixed bouquets.
- Short programmable production time and high yield ideal for highdensity programs.
- Excellent shippability and vase life.

Bright Pink Slightly shorter plumes compared to other Sunday varieties.

Cherry Bright cherry colour. Slightly larger leaves than other Sunday varieties.

Purple Unique colour.

New Mixture Improved Dark Pink, Orange, Bright Pink, Cherry, Purple, Gold.

SUNDAY is a trademark of Celex B.V.





Sunday Red

Sunday Yellow

Sunday Purple

CUT FLOWERS / AMAZON



Celway Red Celosia

CELOSIA O Celosia spicata

Celway™ Series

Height: 40 to 48 in./102 to 122 cm

Seed supplied as: Coated

Planting density: 6 to 8 plants/ft.² (64 to 80 plants/m²) Best for: Greenhouse, high tunnel; Purple, Terracotta and White are also suitable for field production

Plug crop time: 2 to 3 weeks Transplant to finish: 10 to 14 weeks

One central spiky plume is surrounded by several smaller spikes for a well-filled look.
Short, programmable production time.

• Suitable for high-density production.

• Strong stems with small top leaves allow for good sleeving and shippability.

Also available: Mixture

CELWAY is a trademark of Celex B.V.



Neon Cherry



Neon Duo

DIANTHUS O Dianthus barbatus interspecific

Amazon[™] Series F₁

Height: 18 to 36 in./46 to 91 cm

Seed supplied as: Pelleted

Planting density: 3 to 4 plants/ ft.² (30 to 40 plants/m²) for Non-Pinched crop; 1.5 plants/ft.² (15 plants/m²) for Pinched crop **Best for:** Greenhouse, high tunnel, field

Plug crop time: 4 to 5 weeks Transplant to finish: Late Spring/ Summer greenhouse/field, 11 to 14 weeks; Late Summer/Winter greenhouse, 12 to 18 weeks; Field, 18 to 23 weeks

High yields of saleable stems.
No vernalisation is needed for flowering.

• As a Winter greenhouse crop, height is up to 36 in./91 cm, with tallest growth from early Autumntransplanted plants.

Neon Duo Mix of Neon Cherry and Neon Purple.

Rose Magic Blooms start white and age to pink, then to deep rose; all colours show on individual flower heads.

Dependable performance... by the bunch!

Versatile and programmable, Amazon can be produced yearround and is the best dianthus you can grow for Summer production. Whether you're looking for a high-appeal filler for bouquets or an exceptional product for monoculture bunches, Amazon is the one you want!

Amazon Neon Cherry



Neon Purple RHS Award of Garden Merit



Rose Magic RHS Award of Garden Merit



CUT FLOWERS / SWEET







Pink Magic



Deep Pink Maxine





Coral RHS Award of Garden Merit



Red



DIANTHUS

Mixture

184



Scarlet RHS Award of Garden Merit



Purple



Black Cherry



Height: 18 to 36 in./46 to 91 cm

Seed supplied as: Pelleted

Planting density: 4 to 6 plants/ft.² (42 to 64 plants/m²) **Best for:** Greenhouse, high tunnel; also suitable for field

Plug crop time: 4 to 5 weeks Transplant to finish: Late Spring/Summer greenhouse/field, 8 to 9 weeks; Late Summer/Winter greenhouse, 9 to 13 weeks; Field, 15 to 18 weeks

- Top-notch filler series features large, fragrant and long-lasting blooms on strong, straight stems.
- Produces high yields of saleable stems.
 Taller growth comes from early, Autumn-transplanted, greenhousegrown plants.

Deep Pink Maxine More intense colour than Sweet Pink. A top-selling colour in most markets.

White Pure white with no grey anthers.



Pink

DIANTHUS 😑





Magenta Bicolor

Request your Product Information Guide for full culture details



CUT FLOWERS / FLARE



SEASONALITY NUMBER GUIDE FOR FLARE SERIES

Deep Blue

Deep Rose

White

Flare Varieties



Limonium

Limonium



QIS Apricot Limonium



QIS Pale Blue Limonium QIS Lavender

Limonium

Х

Х

Х

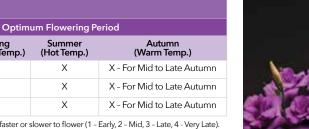


QIS Rose Limonium

Limonium



QIS Purple Limonium



NOTE: The number in variety name is the "Speed Guide". It tells whether the variety is faster or slower to flower (1 - Early, 2 - Mid, 3 - Late, 4 - Very Late). Lisianthus flowering speed and quality is influenced by temperature, daylength and light intensity during production. They will flower fastest under high temperatures, long days and high light intensities. Early-flowering varieties will flower relatively early and short with thin stems during periods of high temperatures, high light intensities and long-day conditions; hence, late-flowering varieties will be best-suited under these conditions;

Spring (Warm Temp.)

Х

Х

Х

LIMONIUM (STATICE) Limonium sinuatum

QIS Series

Height: 30 to 35 in./76 to 89 cm

Seed supplied as: Raw

Speed Guide

Speed 2 Mid Flowering

Planting density: 1 to 2 plants/ft.2 (10 to 20 plants/m²) Best for: High tunnel, field

Plug crop time: 4 to 5 weeks Transplant to finish: 18 to 22 weeks (12 to 13 with vernalisation or direct sowing)

• Widely recommended by professional cut flower growers in the world, QIS ('Quality in Seed') is a considerable improvement over standard varieties in uniformity, colour, flower size and stem quality. • Produces clouds of tiny, non-

- shattering flowers.
- Delivers shippability and long vase life.
- Popular for both fresh and
- preserved cut flower production.
- Stiff stems do not require netting.

F1 DOUBLE-FLOWERED LISIANTHUS 🧧 Eustoma grandiflorum

Flare Series

Winter (Cool Temp.)

Х

Х

Х

Height: 36 to 45 in./91 to 114 cm

Seed supplied as: Pelleted

Planting density: 8 plants/ft.2 (84 plants/m²) Summer; 6 plants/ ft.² (64 plants/m²) Winter Best for: Greenhouse, high tunnel

Plug crop time: 8 to 10 weeks Transplant to finish: Winter, 14 to 18 weeks; Spring/Autumn, 12 to 14 weeks; Summer, 10 to 12 weeks

• The best spray-type lisianthus series - Flare produces a spray of flowers on the top of each stem that opens within a short window, giving a bouquet effect to every stem.

• Labour savings, thanks to no pinching needed.

 Full spray effect may reduce the number of stems needed for floral arrangements.



Flare Deep Rose Lisianthus



Flare Deep Blue Lisianthus



Flare White Lisianthus

CUT FLOWERS / ABC







1 White

Yellow







1 Deep Rose

1 Rose Rim



1 Misty Blue

F1 DOUBLE-FLOWERED LISIANTHUS *Eustoma grandiflorum*

ABC™ Series

Height: 36 to 45 in./91 to 114 cm

Seed supplied as: Pelleted

Planting density: 8 plants/ft.² (84 plants/m²) Summer; 6 plants/ft.² (64 plants/m²) Winter Best for: Greenhouse, high tunnel

Plug crop time: 8 to 10 weeks Transplant to finish: Winter, 14 to 18 weeks; Spring/Autumn, 12 to 14 weeks; Summer, 10 to 12 weeks

• Best-in-class genetics have proven reduced sensitivity to rosetting in the plug and after transplant. You get more saleable plants and stems, plus reduced or no need for gibberellic acid (GA) spraying.

• Uniform vigour in plug and finish stages and faster finish times assure a short harvest window.

• Produces a high-quality finished crop year-round in a comprehensive colour range.

- Outstanding double flower form with high petal count on strong stems.
- Quickly becoming the wedding flower of choice, and an essential for

bouquets, corsages and other arrangements.

• Exceptional vase life.

ABC 1 Purple

186



CUT FLOWERS / ABC



2 Yellow



2 Lavender



3 White



3 Rose



3 Purple



2 Misty Pink



2 Blue Rim



2 Rose





2 Purple

Speed Guide	ABC Varieties		Optimum Flowering Period						
		Winter (Cool Temp.)	Spring (Warm Temp.)	Summer (Hot Temp.)	Autumn (Warm Temp.)				
Speed 1	1 Rose Rim	Х							
Early Flowering	1 Deep Rose	Х	Х		X - For Late Autumn				
	1 Green	Х	Х		X - For Late Autumn				
	1 Misty Blue	Х	Х		X - For Late Autumn				
	1 Purple	Х	Х		X - For Late Autumn				
	1 White	Х	Х		X - For Late Autumn				
	1 Yellow	Х	Х		X - For Late Autumn				
Speed 2	2 Purple	Х	Х		X - For Late Autumn				
Mid Flowering	2 Blue	Х	Х	Х	X - For Mid to Late Autu				
	2 Blue Rim	Х	Х	Х	X - For Mid to Late Autu				
	2 Lavender	Х	Х	Х	X - For Mid to Late Autu				
	2 Misty Blue	Х	Х	Х	X - For Mid to Late Autu				
	2 Misty Pink	Х	Х	Х	X - For Mid to Late Autu				
	2 Rose	Х	Х	Х	X - For Mid to Late Autu				
	2 Yellow	Х	Х	Х	X - For Mid to Late Autu				
Speed 3	3 Purple		Х	Х	Х				
Late Flowering	3 Rose		Х	Х	Х				
	3 White		Х	Х	X				

NOTE: The number in variety name is the "Speed Guide". It tells whether the variety is faster or slower to flower (1 - Early, 2 - Mid, 3 - Late, 4 - Very Late). Lisianthus flowering speed and quality is influenced by temperature, daylength and light intensity during production. They will flower fastest under high temperatures, long days and high light intensities. Early-flowering varieties will flower relatively early and short with thin stems during periods of high temperatures, high light intensities and long-day conditions; hence, late-flowering varieties will be best-suited under these conditions.



CUT FLOWERS / VEGMO



Aida White Matthiola



Aida Apricot Matthiola



Figaro Light Rose Matthiola

MATRICARIA (TANACETUM) Tanacetum parthenium

Vegmo Series

Height: 28 to 36 in./71 to 91 cm

Figaro Lavender Matthiola

Seed supplied as: Pelleted

Planting density: 8 plants/ft.2 (80 plants/m²) in Summer; 7 plants/ft.² (70 plants/m²) in Winter Best for: Greenhouse, high tunnel

Plug crop time: 4 to 5 weeks Transplant to finish: Winter, 14 to 16 weeks; Spring/Autumn, 10 to 14 weeks; Summer, 7 to 10 weeks

• Excellent, fast year-round crop. • Good post-harvest life.

188

Also available: Single Yellow



Mathilda Lavender Matthiola



Mathilda Rose Matthiola



Opera Fedora Matthiola

NORTHERN GREENHOUSE SELECTABLE MATTHIOLA (STOCK) Matthiola incana

Seed supplied as: Raw

Planting density: 6 plants/ft.2 (64 plants/m²) Best for: Greenhouse

Plug crop time: 5 to 6 weeks Transplant to finish: Winter, 11 to 12 weeks; Spring, 8 to 9 weeks; Summer, 6 to 8 weeks; Autumn, 4 to 7 weeks

Bred for specific seasonal performance, the Aida, Figaro, Opera and Mathilda series offer an outstanding lineup of greenhousegrown selectable matthiola for year-round production. These matthiola are well-matched for timing and deliver very uniform plant performance. Transplanting for seasons earlier than listed will result in later flowering.

Greenhouse-grown matthiola are distinguished from field-grown types by the softer green leaves.



Mathilda Blue Matthiola



Mathilda White Matthiola



Opera Debora Matthiola

NOTE: Selectable matthiola will produce approximately 50% double-flowering types, but it is easy to select out the singleflowered types at the young plant stage. Refer to the PanAmerican Seed Product Information Guide at panamseed.com for details.

Matricaria

Aida Series

(Spring Flowering, Group 2) Stem length: 32 in./81 cm

Figaro Series

(Winter Flowering, Group 1,2)

Stem length: 30 in./75 cm

Opera Series (Spring Flowering, Group 2)

Stem length: 32 in./81 cm

• Recommended for Autumn to late Spring flowering. • Production is possible year-round if cool Summer temperatures are maintained in the greenhouse.



Mathilda Pink Matthiola



Mathilda Yellow Matthiola





Vegmo Snowball Extra Matricaria Vegmo Sunny Ball Matricaria

Mathilda[™] Series (Spring Flowering, Group 2)

Stem length: 32 in./81 cm

• Mathilda delivers the most uniform series on the market for habit and timing, with the best seed quality of any selectable matthiola.

• Important upgrade assures more programmable production, higher production per sq. ft./m in the greenhouse and fewer losses.

New Lavender Intense lavender colour.

Pink Slightly taller than White and Yellow.

Yellow Offers the best selectable yellow variety, with consistent, uniform colour.



CUT FLOWERS / COLUMN STOCK











Pink Sweetheart

TRADITIONAL FIELD-GROWN MATTHIOLA (STOCK) Matthiola incana

Column Stock

Height: 24 to 30 in./61 to 76 cm

Seed supplied as: Raw

Planting density: 2.2 lbs./acre (1 kg/4,000 m²) Best for: Field

Direct sow to finish: 20 to 22 weeks

• Single-stemmed florist types have dense, showy spikes of scented, large, double flowers closely

Optimum stem length is achieved during cool growing periods; high heat can stunt plants or prevent flower spikes from developing. • Non-selectable for doubleness.

Also available: Formula Mixture





Apricot







Rose Pink



American Beauty



Purple Heart



Miracle Yellow



Malmaison Pink



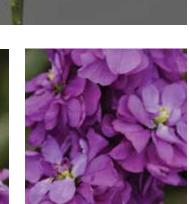
Pacific Crimson



Lilac Lavender



Pacific Blue



Miracle Mid-Blue



Column Stock Apricot

CUT FLOWERS / TOSCA



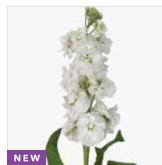
Tosca Blue Sea



Tosca Blue Sea



Tosca Yellow



Tosca White



Tosca Rose

NORTHERN GREENHOUSE SELECTABLE MATTHIOLA (STOCK) • • Matthiola incana

New Tosca Series (Spring Flowering, Group 2,3)

Stem length: 24 to 32 in./ 61 to 81 cm

Seed supplied as: Raw

Planting density: 6 to 7 plants/ft² (65 to 75 plants/m²) Best for: Greenhouse

Plug crop time: 5 to 6 weeks Transplant to finish: Autumn: 8 to 10 weeks, Spring: 10 to 11 weeks, Summer: 6 to 8 weeks, Winter: 12 to 14 weeks

• A good series to grow in Summer with higher light levels and temperatures.



Katz Hi Double White



More usable stems

NEW Katz Hi Double White provides greater than 90% yield of usable double-flowered stems, and this top-selling colour also has flower quality to match current Katz White.

190 MATTHIOLA

CUT FLOWERS / KATZ











Katz Lavender Blue

EXTRA-EARLY FLOWERING **TUNNEL OR FIELD-GROWN** MATTHIOLA (STOCK) Matthiola incana

Katz Blue

New Katz **Hi Double White**

Stem length: 32 in./80 cm

Seed supplied as: Raw

Planting density: 12 plants/ft.² (126 plants/m²) Best for: High tunnel, field

Plug crop time: 4 weeks Transplant to finish: 8 to 13 weeks

• Offers all the same great features as the Katz Series.

• Provides greater than 90% yield of double-flowered stems in this top-selling colour.



Katz Yellow



Katz Bright Rose



Katz Purple

Katz Series

Stem length: 32 in./80 cm

Seed supplied as: Raw

Planting density: 12 plants/ft.² (126 plants/m²)

Best for: High tunnel, field

Plug crop time: 4 weeks Transplant to finish: 8 to 13 weeks

• Delivers shorter crop time, uniform stem length and timing between colours, and better heat tolerance than European or traditional field types.

• Can be grown earlier and later in the season, and even year-round in some climates, allowing for programmable Christmas through Valentine's Day flowering. • Katz matthiola will produce approximately 50% doubleflowering types.

Cherry Blossom ASCFG 2013 Fresh Cut Flower of the Year.



Katz Cherry Blossom



Katz Light Lavender



Katz Ruby

Katz Pink



now supplying commercial growers around the globe with outstanding, high-quality cut flower varieties. After a valiant battle, the disease took Philip from all of us. The debut of a new matthiola series was timely and let us honor Philip in a way he would have truly appreciated.

The power of caring & sharing

We are proud to support PANCAN for pancreatic cancer research by donating 5% of our net seed sales of Katz Matthiola in honor of Philip Katz.

PanAmerican Seed was honored drive to grow our business in this important market into one that is

to have Philip Katz as our Cut Flower Product Manager for 13 years. Philip spearheaded the



CUT FLOWERS / MARYLAND



Maryland Orange (1,2)



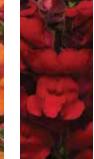
Lavender (1,2)



Dark Orange (2)







Orange (1,2) Red (1,2)





Bright Yellow (2)









Yosemite Pink (1,2)

SERIES SELECTION FOR CREATING A HIGH-QUALITY YEAR-ROUND SNAPDRAGON PROGRAM

Group	Growing-On Night Temperatures	Series
1,2	45 to 55°F/7 to 13°C for late and early Spring harvest	Cool, Maryland, Purple Twist, Red Delilah
2,3	52 to 57°F/11 to 14°C for Autumn and Spring harvest	Monaco
3,4	60°F/15°C for late Spring, Summer and early Autumn harvest	Potomac, Early Potomac

F1 SNAPDRAGON

Antirrhinum majus

All cut flower snapdragons are supplied as raw seed.

Stem length: 39 to 60 in./1 to 1.5 m **Planting density:** 6 to 10 plants/ft² (64 to 106 plants/m²); high-density planting under high-light or field situation Best for: Greenhouse, high tunnel

Plug crop time: 4 to 5 weeks Transplant to finish: 8 to 18 weeks

Maryland Series

(Group 1,2)

• Energy-efficient series is your best choice for cool-season, low-light and low-temperature conditions.

• Group with other Group 1,2 varieties (Cool, Purple Twist and Red Delilah) for Autumn, Winter and Spring programs.

• Well-defined flower spikes are produced on sturdy, clean stems.

Also available: Flamingo (1,2)



CUT FLOWERS / MONACO







Red (2,3)



Violet (2,3)

Monaco Series (Group 2,3)

The "go-to" snaps for difficult transition harvest periods - late Summer to early Autumn and late Winter to early Spring.
Monaco tolerates warm Autumn conditions without flowering too quickly, and produces high-quality flower spikes when Autumn weather is unusually cool and dark.
Performs well all year in areas with moderate temperatures and little daylength fluctuation.

New Orange Important colour addition to this transitional season series.

Monaco Rose (2,3)

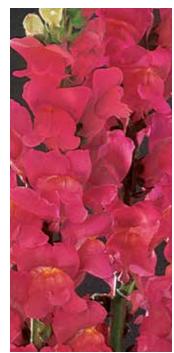
White (2,3)



Yellow (2,3)

NEW

Orange (2,3)



Rose (2,3)

CUT FLOWERS / EARLY POTOMAC

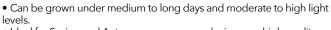


Early Potomac Pink (3)

F1 SNAPDRAGON continued

Early Potomac™ Series

(Group 3)



• Ideal for Spring and Autumn programs, producing very high-quality, long stems with excellent taper.



Early Potomac White (3)



Early Potomac Yellow (3)



Early Potomac Orange (3)



Early Potomac Rose (3)



Potomac White Improved (3,4)



Potomac White Improved (3,4)

Potomac™ Series (Group 3,4)

• Tops for production during periods of high light, long days and warm temperatures.

NEW

Potomac Royal Improved (3,4)

- Plants produce tall, strong stems and long spikes with good flower quality.
- Can be grown year-round with supplemental high-intensity light.

New Royal Improved Offers more vivid colour saturation and better flower spike quality.

New White Improved Offers more reliable germination and improved flower spike quality.

CUT FLOWERS / POTOMAC

Snaps second to none

PanAmerican Seed is the world leading supplier of F1 forcing snaps, with an unsurpassed choice of top-producing varieties selected for stem and flower quality, photoperiodic to flower. With selections streamlined into 4 flowering response groups including our popular Potomac family - you'll find it a "snap" to build an all-year program of successful growing.



Potomac Rose (3,4)



Potomac Ivory White (3,4)



Potomac Appleblossom (3,4)



Potomac Lavender (3,4)



Potomac Orange (3,4)



Potomac Dark Orange (3,4)



Potomac Yellow (3,4)





Potomac Cherry Rose (3,4)



Potomac Crimson (3,4)





Potomac Pink (3,4)

CUT FLOWERS / COOL



Cool Orange (1,2)



Cool Yellow (1,2)



Cool Orange Bicolor (1,2)



Cool Crimson (1,2)



Cool White (1,2)



Cool Pink (1,2)



Cool Rose (1,2)

F1 SNAPDRAGON continued

Cool Series (Group 1,2)

• Best, most uniform Winterflowering snapdragon has genetically matched varieties with uniformity across the series and within each colour for timing, height and spike quality.

- Strong, sturdy stems have long, tight spikes with long tapers.
- Best produced under cool conditions; also the best series for dependable harvest during cool
- months. Well-suited to outdoor growing or under tunnels in California
- Winter conditions.
- Excellent production companion to delphiniums.



Purple Twist (Group 2)

• Unique standalone variety adds novelty to your snap program.Can be produced under short days/moderate light conditions with night temperatures of 50 to 55°F/10 to 13°C during production. • Can be scheduled and grown along with the Maryland series. Striped pattern varies depending on the growing environment when grown in warmer greenhouse conditions, the white stripes are more dense/prominent, and when grown under cool outside/tunnel conditions, the purple is more dense/prominent.



Red Delilah (2)

Red Delilah (Group 2)

• Fun and first-of-its-kind snap produces unique red and white tube-patterned flower spikes on strong, sturdy stems - a great choice to make top-quality bouquets.

• Can be scheduled and grown along with the Maryland series.

CUT FLOWERS / JUA





Jua Maya Sunflower



Jua Inca Sunflower

F1 SUNFLOWER Helianthus annuus

Jua Series

Height: 36 to 60 in./91 to 152 cm

Seed supplied as: Treated

 $\begin{array}{l} \mbox{Planting density: } 6 \mbox{ to } 9 \mbox{ days after seedlings emerge, } \\ \mbox{thin to } 4 \mbox{ to } 5 \mbox{ plants/ft.}^2 \mbox{ (42 to } 52 \mbox{ plant/m}^2) \\ \mbox{Best for: } \mbox{High tunnel, field} \end{array}$

Direct sow to finish (200-cell): 8.5 to 10.5 weeks

- Jua varieties are bred to be less sensitive to cultural variations than traditional sunflowers.
- Pollenless, fast-growing plants produce 3.5 to 4.75-in./9 to 14-cm flowers, complemented by smaller, deep green top leaves.
- Very good vase life.
- Height is dependent on culture.

Inca Mahogany and gold bicolour petals with dark centre. **Maya** Golden yellow petals with dark black centre.

CUT FLOWERS / LAKE



Lake Michigan Purple



Lake Forest Purple

198



Lake Michigan White



Lake Michigan Blue

TRACHELIUM •••

Lake Collection

Stem length: 30 to 42 in./76 to 107 cm

Seed supplied as: Pelleted

Planting density: 6 to 8 plants/ft.² (64 to 84 plants/m²) Best for: Greenhouse

Plug crop time: 7 to 9 weeks Transplant to finish: 10 to 18 weeks

The Lake Collection offers simplified ordering and production to fill year-round orders. Long-day flowering varieties need 16 to 18 hours of daylength to flower and produce the large central umbel with smaller side umbels or "satellites." Excellent vase life and good shippability. Foliage is medium green unless noted.



Lake Michigan Violet

Lake Michigan Series

(Spring and Autumn-Flowering)

The greatest potential for yearround production in mild climates.
Mid-season flowering (transitional Group 3) for mid-Winter to early Spring transplants to yield late Spring to early Summer flowers.
May also be transplanted late Summer to early Autumn for Autumn to early Winter flowering.

Lake Forest Purple

(Winter-Flowering)

• Transplant in Autumn to early Winter for flowering in mid-Winter to early Spring.

CUT FLOWERS / PRODUCTION GUIDE



Jua Sunflower



PanAmerican Seed breeders constantly create new plants as well as genetic improvements on already-popular varieties. (Bombay Celosia)

PRODUCTION GU	IDE			
Class/Variety	Page	Greenhouse	High Tunnel	Field
ANEMONE				
Mona Lisa Series	178	Х	Х	
ASCLEPIAS				
Silky Series	178	Х	Х	Х
CAMPANULA				
Campana Series	179	Х	Х	
CARTHAMUS				
Grenade Orange	178		х	Х
CELOSIA			<i></i>	
Bombay Series	180	х		
Celway Series	183	X	Х	X (3 colours)
Neo Series	181	X	<i>, , , , , , , , , ,</i>	7(0 000013)
Spring Green	180	X		
	182	X	Х	
Sunday Series DELPHINIUM	102	~	^	
	140	Х	Х	Х
Blue Donna				
Guardian Series	140	Х	Х	Х
DIANTHUS	100		N/	
Amazon Series	183	X	X	X
Sweet Series	184	Х	Х	Х
GOMPHRENA				
Fireworks	46	X	Х	Х
QIS Series	46	Х	Х	
LIMONIUM				
QIS Series	185		Х	Х
LISIANTHUS, DOUBLE				
ABC Series	186	Х	Х	
Flare Series	185	Х	Х	
MATRICARIA				
Vegmo Series	188	Х	Х	
MATTHIOLA				
Aida Series	188	Х		
Column Stock	189			Х
Figaro Series	188	Х		
Katz Series	191		Х	Х
New Katz Hi				
Double White	190		Х	Х
Mathilda Series	188	Х		
Opera Series	188	Х		
New Tosca Series	190	Х		
SNAPDRAGON				
Cool Series	196	Х	Х	
Early Potomac Series	194	X	X	
Maryland Series	192	X	X	
Monaco Series	193	X	X	
Potomac Series	194	X	X	
Purple Twist	196	X	X	
Red Delilah	196	X	X	
SUNFLOWER	170	~	~	
Jua Series	197		Х	Х
TRACHELIUM	177		~	~
Lake Forest Purple	198	Х		
Lake Forest Fulple	198	X		

NUMBER 1 FOR SEED



HANDPICKED VEGETABLES & HERBS

FRESH IDEAS™

This novel, high-quality group of vegetables and herbs has been carefully selected for those who supply fresh market farmers, as well as hobby gardeners. The varieties offer **fresh**, **home-grown flavour** and **exceptional fruit quality**, along with **earlier and longer harvests**, and **loads of tasty produce**. We bring all of our expertise and innovation into developing, testing and selecting our HandPicked Vegetables, and every product is backed by our **worldclass service**, **extensive growing information** and **expert technical support** so you can grow and sell with confidence.

Check out the full lineup at panamseed.com/HandPicked





HANDPICKED VEGETABLES & HERBS / CUCUMBER







Martini

CUCUMBER 😑 Cucumis sativus

Seed supplied as: Raw

Name	Туре	Fruit characteristics	Days to maturity from direct seed	Fruit size	Flower type	Disease resistance	Comments
Gherking F1	European pickler	Medium green skin, highly spined	55-60	3-5 in./ 8-13 cm long	Gynoecious, parthenocarpic	HR: CMV-1, S IR: DM, PM	Early, large yields of bitter-free fruit; won't become bitter if left on the vine. Great for high-tunnel production and gardens lacking pollinators; vigorous vines are best when trellised. Cylindrical, dark green gherkins with white spines are perfect for pickling and fresh eating. Best in-ground.
Martini F1	American slicer	White skin, slightly spined	55-60	5-6 in./ 13-15 cm long x 1.5-2 in./ 4-5 cm wide	Monoecious	IR: PM	Stands out from the competition for its non-yellowing, white exterior and earlier yields. Very tender, "no peel" skin if harvested at 5 to 6 in./13 to 15 cm length, with white, bitter-free interior that is very sweet and crunchy. Staying power in the heat of Summer. Best in-ground.
Patio Snacker F1	American slicer	Medium green skin, moderately spined	50-55	6-8 in./ 15-20 cm long x 1.5-2 in./ 4-5 cm wide	Monoecious, parthenocarpic		Controlled yet vigorous variety produces short, branching vines. Fruit has good flavour, crunchy texture and non-bitter peel. High-yielding with continuous harvest. Great for large containers with a small trellis; works well in pack/pot programs.

Disease terminology: HR = High Resistance, IR = Intermediate Resistance Disease codes: CMV-1 - Cucumber Mosaic Virus Race 1, DM - Downy Mildew, PM - Powdery Mildew, S - Scab Flower Type: Gynoecious - predominantly female flowers, Monoecious - plants contain both male and female flowers, Parthenocarpic - plant has the ability to set fruit without pollination

HANDPICKED VEGETABLES & HERBS / EGGPLANT

Use Patio Baby eggplant to add taste and visual appeal in Plug & Play Combos like this!



Plug & Play Combo Lunch Date, see page 233.

EGGPLANT 😑

Solanum melongena

Seed supplied as: Raw



Gretel All-America Selections National Winner





Hansel All-America Selections National Winner

Patio Baby All-America Selections Regional Winner

			-				
Name	Days to maturity from transplant	Fruit size	Fruit characteristics	Calyx colour	Plant habit	Comments	
Gretel F1	55-60	3-4 in./8-10 cm long (baby size) 4-6 in./10-15 cm long (full size)	White, elongated	Green	Upright, semi- spineless	Earliest white eggplant is highly productive, producing clusters of glossy mini-fruit that are tender and non- bitter. Indeterminate, 3-ft. (91-cm) plants can be grown in- ground or in large containers, with or without support. More productive and 5 to 7 days earlier to ripen than O.P. types. Slightly larger plant with slightly smaller fruit than Hansel. <i>All-America Selections National Winner</i> .	
Hansel F1	50-55	2-3 in./5-8 cm long (baby size) 6-10 in./15-25 cm long (full size)	Black-purple, elongated	Green	Upright, semi- spineless	Early-maturing, highly productive variety produces clusters of glossy black-purple eggplants. Non-bitter, tender fruit can be used in many culinary recipes. Like white Gretel, the petite, 3-ft. (91-cm) plants can be grown in-ground or in large containers, with or without support. <i>All-America Selections National Winner</i> .	
Patio Baby F1	40-45	2-3 in./5-8 cm long (baby size)	Purple, mini egg	Green	Compact, spineless	Unique, high-yielding, compact variety produces baby- size eggplants very early and continues producing throughout the season. Fits well into retail patio programs. Best in-ground and in containers. <i>All-America Selections Regional Winner</i> .	

HANDPICKED

HANDPICKED VEGETABLES & HERBS / PEPPER



Aji Rico All-America Selections National Winner



Cajun Belle All-America Selections National Winner



Golden Cayenne



La Bomba II Jalapeño



Habanero Primero Red

PEPPER
Seed supplied as: Raw

Name	Days to maturity from transplant	Fruit characteristics	Plant habit	Disease resistance	Comments
HOT PEPPER					
Aji Rico F1 Capsicum baccatum	70-75 to full ripe, 50-55 to green	Conical, green to red 3-4 in./8-10 cm long x 1.25- 1.75 in./3-4 cm wide	Extra large, vigorous		Unique hybrid hot pepper has more vigour, higher yield and earlier ripening than O.P. heirlooms. Narrow, conical fruit with delicate citrus flavour and medium heat is crispy and thin-walled - perfect fresh or cooked, green or red. Best in-ground; large indeterminate plants benefit from a support. <i>All-America Selections National Winner</i> .
Cajun Belle Capsicum annuum	60-65 to full ripe, 45-50 to green	Mini bell, green to red 2-3 in./5-8 cm long x 2-3 in./5-8 cm wide	Medium		Produces bell peppers with mildly spicy taste just right for fresh eating and salsa. Harvest green or red. Best in-ground and in containers. <i>All-America Selections National Winner</i> .
Golden Cayenne Capsicum annuum	85-90 to full ripe, 70-75 to green	Cayenne, green to yellow 3-5 in./8-13 cm long x 0.5- 0.75 in./1-2 cm wide	Bush		Cayenne-shaped fruit will mature from green to golden-yellow and increase in heat as they ripen. Golden Cayenne fruit are excellent for cooking or fresh eating in salsa and sauces, or dried and ground into a unique golden- yellow powder. Compact bush plant performs well in medium-sized containers or in-ground, with or without support.
Habanero Primero Red F1 Capsicum chinense	full ripe,	Habanero, green to red 2.75-3.5 in./7-9 cm long x 1.25-1.5 in./3-4 cm wide	Large	IR: TSWV	One of the earliest ripening habaneros on the market, with fruit ready to harvest as early as bell peppers. Produces huge yields of fruit larger than other standard habaneros, with just about one-third the heat. Early flowering - can be sold in large pots with flowers and immature fruit. Best in containers or in-ground.
La Bomba II F1 Jalapeño Capsicum annuum	65-70 to full ripe, 50-55 to green	Jalapeño, green to red 3-3.25 in./8 cm long x 1-1.15 in./3 cm wide	Tall, large	HR: BLS 1-3, TMV	Upgraded for superior disease resistance. Bears very large, high-quality jalapeños with little to no checking. Best in containers or in-ground.

) = mild)) = mildly hot))) = medium hot)))) = hot)))) = extra hot

Disease terminology: HR = High Resistance, IR = Intermediate Resistance Disease codes: BLS - Bacterial Leaf Spot, TMV - Tobacco Mosaic Virus, TSWV - Tomato Spotted Wilt Virus

HANDPICKED VEGETABLES & HERBS / PEPPER



Mad Hatter All-America Selections National Winner



Sweet Heat



Candy Cane Red

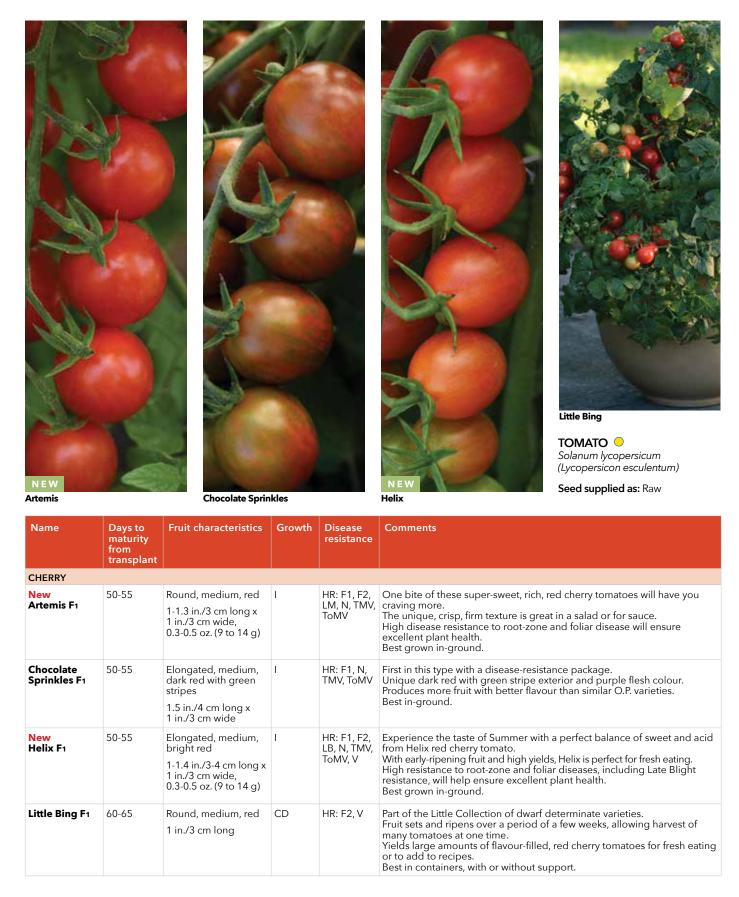


Orange Marmalade



Snackabelle Red

Name	Days to maturity from transplant	Fruit characteristics	Plant habit	Disease resistance	Comments
HOT PEPPER					
Mad Hatter F1 Capsicum baccatum	85-90 to full ripe, 65-70 to green	Unique disc, green to red 2-3.5 in./5-9 cm long x 2-2.5 in./5-6 cm wide	Extra large, vigorous		Flat-disc peppers are crunchy and crisp, with delicate floral scent and rich flavour that intensifies/sweetens as it matures. In hot, dry climates, a small number of fruit will have a touch of heat close to the seed cavity, but fruit wings are always sweet. Best in-ground with support. <i>All-America Selections National Winner</i> .
Sweet Heat F1 Capsicum annuum	55-60 to full ripe, 40-45 to green	Snack, green to red 3.5-4 in./9-10 cm long x 1.25-1.75 in./3-4 cm wide	Compact		One of the earliest peppers to bear fruit! Compact, bushy plants let you ship or sell larger containers with developing fruit. Sweet and mildly spicy peppers can be harvested green or red. Best in containers or in-ground.
SWEET PEPPER					
Candy Cane Red F1 Capsicum annuum	60-65 to full ripe, 40-45 to green	Snack, green/white stripe to red 3.5-4 in./9-10 cm long x 1.25-1.75 in./3-4 cm wide	Medium		Snack pepper has unique, eye-catching variegated foliage, plus fruit that ripen from green striped to solid red. Sweet flavour, thin walls, crispy texture. Perfect for fresh eating at any stage of ripeness. Best in containers or in-ground, with or without support.
New Orange Marmalade F1 Capsicum annuum	70-75 to full ripe, 55-60 to green	Bell, green to orange 3.5-4 in./9-10 cm long x 3-3.5 in./8-9 cm wide, 6-7 oz. (170 to 198 g)	Bush	HR: BLS 1-3, 7, 8; TMV	Orange Marmalade is an easy addition to any garden, with high yields of sweet bell peppers that ripen from green to orange. Early-ripening, sweet and flavourful medium-sized fruit are perfect for slicing fresh in a salad. Blocky bell shape is also great for stuffing. Includes a superior disease-resistance package. Supplied as professional-quality, disease-tested seed.
Snackabelle Red F1 Capsicum annuum	70-75 to full ripe, 55-60 to green	Mini bell, green to red 2-2.25 in./5-6 cm long x 2-2.25 in./5-6 cm wide	Compact	HR: BLS 1-3, 7, 8; TMV	Thick-walled, blunt-end peppers have rich, sweet flavour great for fresh eating from green to red, and hold up well through grilling and stuffing. "Easy-out" stem and seeds - simply push down or cut around cap to release seed cavity for quick cleaning. Best in containers or in-ground.



206 TOMATO Request your Product Information Guide for full culture details



Micro Tom



Sugar Rush



Orange Zinger



Midnight Snack All-America Selections National Winner

Name	Days to maturity from transplant	Fruit characteristics	Growth	Disease resistance	Comments
CHERRY					
Micro Tom	50	Round, small, red 0.5-0.75 in./1-2 cm long	CD		Novelty variety produces an extremely dwarf plant covered with sweet fruit. Well-suited to 3 to 4-in./8 to 10-cm pot production. Best in containers.
Midnight Snack F1	65-70	Round, medium, red with black overlay 1.5 in./4 cm long	1		Unique cherry tomato ripens red with an overlay of glossy black-purple on the skin when exposed to sunlight due to the accumulation of anthocyanin pigment. Sure to capture attention at retail and on the farm stand! Productive all season, yielding fruit that is well-balanced and flavourful. Great in salads or eaten straight off the plant, Midnight Snack is a guilt- free treat any time of the day or night. Best in-ground, grown with support. <i>All-America Selections National Winner</i> .
Orange Zinger F1	60-65	Round, large, dark orange 1.5-2 in./4-5 cm long	1	HR: F1 TMV, ToMV	Crack-resistant variety yields more usable fruit than Sungold. The high-quality, tasty, dark orange tomatoes have big tomato flavour with a balance of sweet and tangy. Best in-ground.
Sugar Rush F1	50-55	Elongated, medium, red 0.75-1.25 in./2-3 cm long x 0.5-1 in./ 1-3 cm wide	1	HR: F1, TMV, ToMV	Super-sweet elongated fruit has one of the highest Brix ratings of this type. Fast-maturing and very productive all season; produces long trusses of fruit with great flavour and texture. Best in-ground.

Disease terminology: HR = High Resistance, IR = Intermediate Resistance Disease codes: EB - Early Blight, F1 - Fusarium Race 1, F2 - Fusarium Race 2, LB - Late Blight, LM - Leaf Mold, N - Nematodes, SLS - Septoria Leaf Spot, TMV - Tobacco Mosaic Virus, ToMV - Tomato Mosaic Virus, V - Verticillium Growth: CD - Compact Determinate, CI - Compact Indeterminate, D - Determinate, I - Indeterminate, SD - Semi-determinate





Tumbler

Topsy Tom



Candyland Red (Fruit shown actual size) All-America Selections National Winner

Name	Days to maturity from transplant	Fruit characteristics	Growth	Disease resistance	Comments
CHERRY					
Tidy Treats F1	50-55	Round, small, red 0.75-1 in./2-3 cm long	CI	HR: F1, V	Tons of fruit power on a compact plant! Good in small-space gardens and containers but unlike other patio types, continues to produce red cherry tomatoes all season. Habit stays compact like a determinate but produces like an indeterminate. Best in containers or in-ground grown with support.
Topsy Tom F1	50-55	Round, medium, red 1 in./3 cm long x 1.25 in./3 cm wide	SD		Perfect for "upside down" and traditional planters. Compact/mounded. Pliable stems ship well, hold abundant fruit, won't break in wind. Continues to put out branches with many trusses of split-resistant, sweet fruit.
Tumbler F1	48-50	Round, medium, red 1.25 in./3 cm long	D		A superior variety for baskets and containers has graceful, cascading habit. Prolific, extra-early plants produce up to 6 lbs./2.7 kg of very sweet cherry tomatoes.
CURRANT					
Candyland Red	55-60	Red 0.5 in./1 cm long x 0.5 in./1 cm wide			Stays compact and tidy, so it won't take over like the other sprawling currants; easy to grow and earlier, too. Branched trusses make for accessible harvest and fruits detach without damage for more usable fruit. Very high yields of tiny, red fruit deliver very sweet flavour. Best in-ground. <i>All-America Selections National Winner.</i>

Disease terminology: HR = High Resistance, IR = Intermediate Resistance Disease codes: EB - Early Blight, F1- Fusarium Race 1, F2 - Fusarium Race 2, LB - Late Blight, N - Nematodes, SLS - Septoria Leaf Spot, TMV - Tobacco Mosaic Virus, ToMV - Tomato Mosaic Virus, V - Verticillium Growth: CD - Compact Determinate, CI - Compact Indeterminate, D - Determinate, I - Indeterminate, SD - Semi-determinate

New twists on old garden favourites

ΤΟΜΑΤΟ 😑

Solanum lycopersicum (Lycopersicon esculentum)

Seed supplied as: Raw



Heirloom Marriage Big Brandy



Heirloom Marriage Marzinera



Heirloom Marriage Cherokee Carbon



Heirloom Marriage Genuwine



Heirloom Marriage Perfect Flame

Name	Days to maturity from transplant	Fruit characteristics	Growth	Comments						
HEIRLOOM MARRIAG	HEIRLOOM MARRIAGE™ COLLECTION									
Big Brandy F1	75-80	Beefsteak, pink 12-15 oz. (340-425 g)	I	Big, pink fruit with outstanding flavour is a cross of Big Dwarf and Brandywine. Best in-ground.						
Cherokee Carbon F1	75-80	Beefsteak, purple 10-12 oz. (283-340 g)	I	Robust purple beefsteak with rich flavour. A cross of Cherokee Purple and Carbon. Best in-ground.						
Genuwine F1	70-75	Slicer, red 10.5-11.5 oz. (298-326 g)	I	Big red slicer tomato is a cross of Costoluto Genovese and Brandywine. Ready to harvest 12 to 19 days earlier than Brandywine! Best in-ground.						
Marzinera F1	70-75	Roma, red 3-4 oz. (85-113 g)	I	Red roma/paste tomato produces large yields of meaty fruit that are great for cooking. A cross of San Marzano and Cream Sausage. Best in-ground.						
Perfect Flame F1	70-75	Saladette, orange 2-3 oz. (57-85 g)	I	Orange saladette tomato with sweet-tart fruitiness. Earliest-ripening Heirloom Marriage variety. A cross of Peron and Flamme. Best in-ground.						

Growth: CD - Compact Determinate, CI - Compact Indeterminate, D - Determinate, I - Indeterminate, SD - Semi-determinate



Mix tomatoes, parsley and petunias in tempting Plug & Play Combos like this!



Plug & Play Combo Italian Bistro, see page 233.

ΤΟΜΑΤΟ 😑 Solanum lycopersicum (Lycopersicon esculentum)

Seed supplied as: Raw

Little Tomato Collection L to R: Little Napoli, Little Bing (page 206) and Little Sicily

Name	Days to maturity from transplant	Fruit characteristics	Growth	Disease resistance	Comments
BEEFSTEAK					
Tidy Rose F1	60-65	Pink 5-7 oz. (142-198 g)	CI		Popular Tidy Treats has a deep pink beefsteak companion - both remain compact like a determinate but produce like an indeterminate. Beautiful ribbed fruit with rich heirloom flavour are perfect for any culinary use. Best in containers or in-ground, grown with support.
ROMA					
Little Napoli F1	60-65	Red 2-2.5 oz. (57-71 g)	CD	HR: F1, V	One of the only patio romas, with disease resistance for better garden success. High yields for such a small plant - harvest enough at one time for a batch of salsa or sauce. Best in containers.
Sunrise Sauce F1	55-60	Orange 3-4 oz. (85-113 g)	D	HR: F1, V	The only professional non-heirloom orange roma/paste/cooking tomato on the market. Yields large amounts at one time to harvest enough to make a batch of sauce or salsa. Small plants are ideal for small-space gardens and large containers. Easy-to-peel tomatoes are sweet and meaty, with a taste like traditional romas. Best flavour comes with cooking; can also be enjoyed fresh. Best in-ground.
SLICER					
Homeslice F1	60-65	Round, red 5-6 oz. (142-170 g)	D	HR: F1, V	Vigorous, compact variety produces very early and bountiful yields of exceptional slicers. Perfect for patio containers and small gardens.
Little Sicily F1	60-65	Round, red 3-4 oz. (85-113 g)	CD		Companion to Little Bing and Little Napoli, the compact, sturdy plants produce the majority of ripened fruit over a few weeks for a large harvest. Abundant, good-tasting, small red slicer tomatoes are great eaten fresh or used in recipes. Best in containers, with or without a trellis.
Stellar F1	70-75	Round, red 5-7 oz. (142-198 g)	D	HR: F2, LB, V IR: EB, SLS	The perfect slicer for areas with high disease pressure; highest level of disease resistance occurs when planted apart from other tomatoes. Produces lots of round, red fruit that is perfect for all uses. Best in-ground; benefits from a trellis for support.

Disease terminology: HR = High Resistance, IR = Intermediate Resistance Disease codes: EB - Early Blight, F1 - Fusarium Race 1, F2 - Fusarium Race 2, LB - Late Blight, N - Nematodes, SLS - Septoria Leaf Spot, TMV - Tobacco Mosaic Virus, ToMV - Tomato Mosaic Virus, V - Verticillium Growth: CD - Compact Determinate, CI - Compact Indeterminate, D - Determinate, I - Indeterminate, SD - Semi-determinate





Tidy Rose



Homeslice



Sunrise Sauce



Stellar

HANDPICKED VEGETABLES & HERBS / SQUASH & STRAWBERRY



Butterbaby Butternut Squash



Honeynut Butternut Squash

Туре

EasyPick Gold II Zucchini

Easy Pick Green Zucchini



Lemon Sun Squash





SQUASH 😑

Seed supplied as: Raw

STRAWBERRY 9 Fragaria x ananassa

Fresca

Height: 3 to 4 in./8 to 10 cm Spread: 10 to 12 in./25 to 30 cm

Seed supplied as: Raw

Days from transplant to ripe fruit: 85

• Produces medium-size berries from the start of Summer through Autumn.

• Best in baskets, containers and in-ground.

		colour	maturity from direct seed			resistance		
Butterbaby Cucurbita moschata	Mini butternut	Tan	100-105	4-6 in./10-15 cm long x 3-4 in./ 8-10 cm wide, 0.5-1.5 lb./ 227-680 g	Restricted Vine	IR: PM	Produces many sweet, personal-size butternuts. High proportion of uniform fruit – around 1 lb./454 g each – means less grading for the fresh market farmer and satisfaction for the home gardener. Best in-ground; can be grown on a trellis to save even more space.	
Honeynut Cucurbita moschata	Mini butternut	Dark tan	105-110	4-5 in./10-13 cm long x 2.5-4 in./ 6-10 cm wide, 0.5-1 lb./ 227-454 g	Restricted Vine		Produces exceptionally sweet, small fruit that are manageable to prepare. The first widely adaptable small-fruited butternut squash in a high-germinating, uniform strain. Higher yielding than traditional varieties. Best in-ground.	
Easy Pick Gold II F1 Cucurbita pepo	Zucchini	Gold	45-50	1-10 in./3-25 cm long	Bush	IR: PRSV, WMV, ZYMV	Easy Pick Series is well-matched, smooth- textured and can be grown and marketed together. Open habit with nearly no spines on the petioles for easy and continuous harvests wi no pain and less scarring on fruit. Parthenocarpic variety means that plants will produce fruit when the instance and instance.	
Easy Pick Green F1 Cucurbita pepo	Zucchini	Dark green	45-50	1-10 in./3-25 cm long	Bush		produce fruit without insect pollination. Harvest from a very small size with a flower attached. Best in-ground.	
New Lemon Sun F1 Cucurbita pepo	Patty Pan	Yellow	40-45	1-3 in./3-8 cm long x 1-5 in./ 3-13 cm wide	Bush		Vigorous and strong bush plant habit will produce exceptional yields of uniform, yellow, scalloped, disc-shaped fruit with no green on the blossom end. Fruit are sweet and tender; harvest from baby with the flower attached to full size, 4 to 5 in./ 10 to 13 cm wide. Large quantities of male flowers are perfect for frying. Best grown in-ground.	

Disease terminology: HR = High Resistance, IR = Intermediate Resistance Disease codes: PRSV - Papaya Ringspot Virus, PM - Powdery Mildew, WMV - Watermelon Mosaic Virus, ZYMV - Zucchini Yellow Mosaic Virus

HANDPICKED VEGETABLES & HERBS / HERBS



Dolce Fresca Basil All-America Selections National Winner



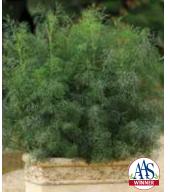
Everleaf Genovese Basil

HERBS 😑

Seed supplied as: Raw



Purple Ruffles Basil All-America Selections National Winner



Fernleaf Dill All-America Selections National Winner Sweet Dani Lemon Basil All-America Selections National Winner

NEV

Newton Basil



Everleaf Emerald Towers Basil

	All-America Selections National Winner Selections National Winner								
Name	Height	Spread	Days to maturity from transplant	Comments					
BASIL Ocimum ba	asilicum								
Dolce Fresca	12-14 in./ 30-36 cm	10-12 in./ 25-30 cm	28	Mid-size plant has a unique bushy habit with shorter internodes that shows better at retail than traditional basils and holds its controlled size in the garden without getting tall and leggy. More usable leaf yields, with traditional sweet Genovese basil flavour. <i>All-America Selections National Winner</i> .					
New Everleaf Emerald Towers	24-36 in./ 61-91 cm	8-12 in./ 20-30 cm	30-45	Flowers up to 10 to 12 weeks later than standard basil. Well-branched variety with short internodes makes a beautiful towering plant with huge harvest potential that stays tidy for many uses, including in-ground, container gardens and hydroponics. Traditional Genovese flavour is perfect for eating fresh in caprese salad or chopped fresh in recipes. Dark green, glossy foliage and tidy columnar habit stand out at retail.					
Everleaf Genovese	18-24 in./ 46-61 cm	12-18 in./ 30-46 cm	30-45	Flowers up to 8 weeks later than standard basil. First basil bred for season-long performance and continual harvesting. Compact variety has short internodes and excellent branching in a columnar habit, perfect for in-ground or container gardens. Robust Genovese flavour stands up to cooking - perfect for pesto and adding to sauce. Intermediate resistance to Downy Mildew and standard resistance to Fusarium make it a standout in any garden!					
New Newton		10-16 in./ 25-41 cm	21-30	Fast-growing variety with traditional Genovese flavour also features high resistance to Fusarium. Unlike similar varieties, Newton does not have a licorice aftertaste, appealing to a wide range of consumers. Large, bright green, crinkled leaves are great for vegetable wraps and fresh chopped herbs.					
Purple Ruffles	18-24 in./ 46-61 cm	18-24 in./ 46-61 cm	28	Ornamental variety has fragrant, ruffled, deep purple leaves with mild anise flavour. <i>All-America Selections National Winner.</i>					
Sweet Dani Lemon	22-24 in./ 56-61 cm	18-24 in./ 46-61 cm	28	Flavourful and fragrant - up to 75% more total essential oils than standard lemon basils. Vigorous garden performer. <i>All-America Selections National Winner</i> .					
DILL Anethum gra	aveolens								
Fernleaf	12-15 in./ 30-38 cm	10-12 in./ 25-30 cm	28	Perfect for patio planters - dwarf, compact plants don't need staking and won't topple over. Can also be grown in-ground and used for traditional culinary purposes. Late flowering allows for a long harvest season and extended ornamental period. <i>All-America Selections National Winner</i> .					



SimplyHerbs controlled seed input produces a healthy, uniform product for retail.



SimplyHerbs Basil and 'Try Basil' grown with Precision Multi-Pellets in hydroponic production.

SINGLE-SPECIES MULTI-SEED PELLETS

SimplyHerbs[™] Series

SimplyHerbs Basil, 'Try Basil', Dill, Curled Parsley, Large-Leaf Italian Flat Leaf Parsley, Rosemary and Sage are available as **Precision™ Multi-Pellets**.

For Growers, this offers reliable plug production, improved order fill rate, uniform quality in plug trays and improved margin, meaning more sales.

For Hydroponic Growers, this offers a higher percentage of transplantable plugs and more uniform finished product.

All varieties are best in-ground and in containers.

Name	Seed supplied as	Seeds per pellet	Height	Spread	Days to harvest from transplant	USDA hardiness zones
Basil Ocimum basilicum (Genovese)	PMPL	6	24-30 in./61-76 cm	12-16 in./30-41 cm	28	
'Try Basil' Ocimum basilicum	PMPL*	8	24-30 in./61-76 cm	12-16 in./30-41 cm	28	
Dill Anethum graveolens	PMPL	6	12-24 in./30-61 cm	10-16 in./25-41 cm	28	
Oregano Origanum vulgare	MPL	9-14	12-30 in./30-76 cm	12-24 in./30-61 cm	28	5a-9b
Curled Parsley Petroselinum crispum	PMPL	6	15-18 in./38-46 cm	12-18 in./30-46 cm	28	5a-8b
Large-Leaf Italian Flat Leaf Parsley Petroselinum crispum	PMPL	6	15-18 in./38-46 cm	12-18 in./30-46 cm	28	5a-8b
Rosemary Rosmarinus officinalis	PMPL	7	12-24 in./30-61 cm	12-24 in./30-61 cm	42	7a-10b
Sage Salvia officinalis	PMPL	6	18-24 in./46-61 cm	14-24 in./36-61 cm	28	4a-8b
Thyme Thymus vulgaris	MPL	8-14	12-18 in./30-46 cm	12-18 in./30-46 cm	42	5a-9b

*Each pellet includes Genovese, serrated and dark red selections.

HANDPICKED VEGETABLES & HERBS / SIMPLYHERBS



SimplyHerbs 'Try Basil'



SimplyHerbs Basil



SimplyHerbs Rosemary



SimplyHerbs Large-Leaf Italian Flat Leaf Parsley



SimplyHerbs Oregano



SimplyHerbs Sage



SimplyHerbs Curled Parsley



SimplyHerbs Thyme

HANDPICKED VEGETABLES & HERBS / SIMPLYSALAD



MULTI-SPECIES & SINGLE-SPECIES MULTI-PELLETS

SimplySalad® Series

Height: 12 in./30 cm Spread: 12 in./30 cm

Plug crop time: 2 to 3 weeks

Cress:

Plug crop time: 3 to 4 weeks

 SimplySalad introduced the first multi-species multi-seed pellets for salad.

• Easy to grow with very quick crop times and only one pellet needed.

Can be direct-sown in 4 to
 6-in./10 to 15-cm pots and colour

bowls.

• Produces more vivid colours when finished cool.

• Gardeners will enjoy as both a colourful, mixed-texture

ornamental and a delicious,

nutritious edible.

• Performs best for consumers in full sun in cool weather, or partial shade as temperatures warm up.

• Best in containers.

SimplySalad Arugula

SimplySalad Wonder Wok Mixture

Name	Seed supplied as	Seeds per pellet	Height	Spread	Days to maturity from transplant	Comments
Alfresco Mixture	MPL	10-12	12 in./30 cm	12 in./30 cm	2-4 weeks	Red and green leaf lettuces with arugula, endive and radicchio.
Arugula	PMPL	6	12-18 in./ 30-46 cm	12-18 in./ 30-46 cm	2-4 weeks	A great variety for hydroponic systems. Quick to establish, upright variety with a mix of lobes and smooth shapes - perfect for bunching. Harvest as young leaves with a mild, nutty flavour; leaves become spicy as they mature or are exposed to high temperatures.
City Garden Mixture	MPL	7-9	12 in./30 cm	12 in./30 cm	2-4 weeks	Red and green lettuces.
Cress	PMPL	6	6-12 in./ 15-30 cm	8-12 in./ 20-30 cm	3-4 weeks	A great variety for hydroponic systems. Rosette-forming plants stay in a neat, tidy bunch for many weeks before flowering. Leaves have a great lobe shape and spicy flavour perfect for salads or braising.
Global Gourmet Mixture	MPL	10-12	12 in./30 cm	12 in./30 cm	2-4 weeks	Red and green leaf lettuces with spicy Asian greens.
Kale Storm Mixture	PMPL	8	12-24 in./ 30-61 cm	12-24 in./ 30-61 cm	2-4 weeks	The first all-kale SimplySalad includes an attractive mix of textures and colours, including purple, green and blue. Lasts longer in the container than lettuce and won't bolt. Can also be planted in the ground for all-season harvest.
Summer Picnic Mixture	MPL	10-12	12 in./30 cm	12 in./30 cm	2-4 weeks	A season extender! Heat-tolerant, late-bolting mix of red and green lettuces.
Wonder Wok Mixture	MPL	10-12	12 in./30 cm	12 in./30 cm	2-4 weeks	Mix of Asian greens including mustards, kale and bok choy.

MPL - Supplied as multi-species multi-pellets, with 3 or more seedlings per pellet. PMPL - Precision™ Multi-Pellets assure high germination uniformity.

HANDPICKED VEGETABLES & HERBS / SIMPLYSALAD



SimplySalad Series



Cress



Global Gourmet Mixture



Arugula



Wonder Wok Mixture



Alfresco Mixture



Summer Picnic Mixture



Precision Standard Multi-Pellet Multi-Pellet



Kale Storm Mixture



City Garden Mixture

HANDPICKED VEGETABLES & HERBS / PRODUCTION GUIDE

Class/Variety	Page	e Fresh Market			Home Garden	
		Field	Hydroponic	Protected Culture	In-ground	Container
F1 AMERICAN SLICER CUCUMBER						
Martini	202	Х			Х	
Patio Snacker*	202				Х	х
F1 EUROPEAN PICKLER CUCUMBER						
Gherking	202	Х		Х	Х	
F1 EGGPLANT						
Gretel	203	Х			Х	Х
Hansel	203	Х			Х	Х
Patio Baby	203	Х			Х	х
HOT PEPPER						
Aji Rico F1	204	Х			Х	
Cajun Belle	204	Х			Х	Х
Golden Cayenne*	204				Х	х
Habanero Primero Red F1	204	Х			Х	Х
La Bomba II F1	204	Х			Х	х
Mad Hatter F1	205	Х			Х	
Sweet Heat F1*	205				Х	Х
F1 SWEET PEPPER						
Candy Cane Red	205	Х			Х	Х
New Orange Marmalade	205	Х			Х	Х
Snackabelle Red	205	Х			Х	Х
SIMPLYSALAD [®]						
Alfresco Mixture	216		Х		Х	Х
Arugula	216	Х	Х		Х	Х
City Garden Mixture	216		Х		Х	Х
Cress	216	Х	Х		Х	х
Global Gourmet Mixture	216		Х		Х	Х
Kale Storm Mixture	216	Х	Х		Х	Х
Summer Picnic Mixture	216		Х		Х	Х
Wonder Wok Mixture	216		Х		Х	х
MINI BUTTERNUT SQUASH						
Butterbaby	212	Х			Х	
Honeynut	212				Х	
F1 PATTY PAN SQUASH						
New Lemon Sun	212	Х			Х	
F1 ZUCCHINI SQUASH						
Easy Pick Gold II	212	Х		Х	Х	Х
Easy Pick Green	212	Х		Х	Х	Х
STRAWBERRY						
Fresca*	212				Х	х
HEIRLOOM MARRIAGE™ F1 TOMATO						
Big Brandy	209	Х			Х	
Cherokee Carbon	209	Х			Х	
Genuwine	209	Х			х	
Marzinera	209	X			X	
Perfect Flame	209	X			X	

HANDPICKED VEGETABLES & HERBS / PRODUCTION GUIDE

Class/Variety	Page	Fresh Market			Home Garden	
		Field	Hydroponic	Protected Culture	In-ground	Container
F1 BEEFSTEAK TOMATO						
Tidy Rose*	210				Х	Х
CHERRY TOMATO						
New Artemis F1	206	Х		Х	Х	
Chocolate Sprinkles F1	206	Х		Х	Х	
New Helix F1	206	Х			Х	
Little Bing F1*	206					Х
Micro Tom*	207					Х
Midnight Snack F1	207	Х			Х	
Orange Zinger F1	207	Х			Х	
Sugar Rush F1	207	Х			Х	
Tidy Treats F1*	208				Х	Х
Topsy Tom F1*	208					Х
Tumbler F1*	208					Х
CURRANT TOMATO						
Candyland Red	208	Х			Х	
F1 ROMA TOMATO						
Little Napoli*	210					Х
Sunrise Sauce	210	х			Х	
F1 SLICER TOMATO						
Homeslice	210	Х			Х	Х
Little Sicily*	210					Х
Stellar	210	Х			Х	
SIMPLYHERBS™						
Basil	214	Х	х		Х	Х
'Try Basil'	214	х	Х		Х	Х
Dill	214	Х	Х		Х	Х
Oregano	214	Х	х		Х	Х
Curled Parsley	214	х	Х		х	Х
Large-Leaf Italian Flat Leaf Parsley	214	X	X		X	X
Rosemary	214	X	~		X	X
Sage	214	X			x	X
Thyme		X			X	X
BASIL	214	~			~	~
Dolce Fresca	213	Х	Х		Х	Х
New Everleaf Emerald Towers	213		X		X	X
Everleaf Genovese	213	X	∧ 		X	X
New Newton		X	v			
	213	X	Х		X	X
Purple Ruffles	213	X			X	X
Sweet Dani Lemon	213	Х			Х	X
DILL	040	X	N/		X	X
Fernleaf	213	Х	Х		Х	Х

* Compact variety - best-suited to home garden use.

NUMBER 1 FOR SEED



NEW FIRELIGHTER

With amazing colour at all stages, these pepper combos can be sold as soon as their fruit starts to show! See page 237.

PLUG & PLAY® COMBOS

ALL-SEED, ALL-PROVEN, ALL YOU NEED

All-new Plug & Play XXL selections enhance the lineup of easy, fresh and fun combos that deliver by combining premium perennials and annuals for great Summer and Autumn sales. After **internal and external trialing** in multiple regions, our combos only move into the lineup when they get two thumbs up from our customers. This is how we fulfill the promise of **easy, economical production; big retail shows and gardener-satisfying results.**

Find all the program details at panamseed.com/PlugandPlay



FUSEABLES[®]

PRECISION™ MULTI-PELLETS

Fuseables *"easy-sow, easy-grow"* Precision Multi-Pellets offer the only combo program from a single pellet. You'll grow and sell more consistent and better looking mixes with Fuseables Plug & Play Combos.



Revolutionary Fuseables Precision Multi-Pellets...



flow right through your seeder...



transform into "easy-sow, easygrow" plugs...



to grow greatlooking, balanced combos that sell!



222

Order now from your preferred distributor







FUSEABLES WINE COOLER

Sorbet® Midnight Glow Viola & Clear Crystal® Purple Shades Alyssum



EARLY SPRING Grow all these early Spring combos cool for best finish.

FUSEABLES SUNGLOW

Sorbet Lemon Chiffon Viola & Sorbet Midnight Glow Viola



EARLY SPRING



Sorbet Lemon Chiffon Viola & Sorbet Peach Melba Viola



EARLY SPRING

FUSEABLES BLUEBERRY LIME JAM

Sophistica[®] Lime Green Petunia & Dreams[™] Midnight Petunia



FUSEABLES LIME CORAL

Dreams Coral Morn Petunia & Sophistica Lime Bicolor Petunia







PLUG & PLAY / WAVE FUSEABLES



WAVE FUSEABLES SILK N SATIN

Shock Wave® Pink Shades Petunia & Snowtopia Bacopa



WAVE FUSEABLES HEALING WATERS

Shock Wave Denim Petunia, Easy Wave Violet Petunia & Blutopia Bacopa



WAVE FUSEABLES RISE N SHINE

Easy Wave Yellow Petunia & Easy Wave Rosy Dawn Petunia



WAVE FUSEABLES OOH LA LA

Easy Wave Burgundy Star Petunia, Easy Wave Neon Rose Petunia & Shock Wave Coconut Petunia



PLUG & PLAY

FUSEABLES PARADISE ISLAND

Kabloom™ Yellow Calibrachoa, Kabloom Denim Calibrachoa & rose calibrachoa (not available separately).



FUSEABLES UNDER THE SUN

Crimson Gold Coleus & Lime Delight Coleus - great for both sun and shade



FUSEABLES TWISTED ARROWS

Blue Arrows Juncus & Juncus effusus spiralis (curly juncus) NOTE: Supplied as original Fuseables clay multi-pellets.



FUSEABLES TWISTED DART

Blue Dart Juncus & Juncus effusus spiralis (curly juncus) NOTE: Supplied as original Fuseables clay multi-pellets.



FUSEABLES CHOCOLATE SYMPHONY

Chocolate Mint Coleus & Lime Delight Coleus - an easy combo for shade



PLUG & PLAY®

GROW YOUR BEST COMBOS FROM SEED-RAISED PLUGS!

Every Plug & Play seed combo is tested over and over to prove that it delivers unstoppable performance from bench to store to garden. Trialing in saleable sizes begins in our research greenhouses and in our outdoor Summer containers. But we don't stop there - every potential introduction heads out to commercial greenhouses and to gardens for real-life testing. It's only when our customers give the combos they've seen in action two thumbs up that they move into the lineup.

GOOD FOR GROWERS: EASY, ECONOMICAL PRODUCTION

- Superior, high-impact genetics plus recipe and culture support.
- Programmable finish times to hit store set dates.

• You're always in complete control of when to sow, grow and ship.

GOOD FOR RETAILERS: BIG RETAIL SHOWS = BIG SALES

- Ready-to-use designer blends.
- On-trend colours that sell.
- The perfect magnet for repeat shoppers!

GOOD FOR CONSUMERS: CHOICES FOR SPRING, SUMMER & AUTUMN

- Easy, grab 'n go gardens appeal to today's shopper.
- Lots of instant, long-lasting, multi-colour blooms.
- Balanced, attractive combos to enhance every décor.

Find recipes and planting diagrams for all the Plug & Play Combos at panamseed.com.



PLUG & PLAY

NEW Firelighter



With bright colours and early season flowering, these combos featuring Cool Wave pansies are the first in stores to grab shopper attention.

OCEAN BREEZES

Cool Wave Blue Skies Pansy, Cool Wave Purple Pansy & Cool Wave White Pansy



PURPLE SUNSET

Cool Wave Purple Pansy, Cool Wave Golden Yellow Pansy & Cool Wave Blue Skies Pansy



Grow all these early Spring combos cool for best finish.

ON A CLEAR DAY

Cool Wave Purple Pansy, Cool Wave White Pansy & Cool Wave Golden Yellow Pansy



YELLOW HEAVEN

Cool Wave Lemon Pansy, Cool Wave White Pansy & Cool Wave Golden Yellow Pansy





These beautiful, balanced combos feature Wave petunias, the most-asked-for flower brand! They're perfect for main-season programs and supported by Wave marketing and merchandising.

VERY VALENTINE

Easy Wave Pink Passion Petunia, Easy Wave White Petunia & Easy Wave Red Velour Petunia



SUBTLE PERFECTION

Easy Wave Pink Passion Petunia, Easy Wave

Silver Petunia & Shock Wave Deep Purple

FLYING THE FLAG

Easy Wave Red Velour Petunia, Easy Wave White Petunia & Combo Blue Petunia



All varieties in each Plug & Play Combo must be transplanted at the same time in order to finish at the same time. Sow dates may vary. NOTE: Individual varieties sold separately.

SPRING

Petunia

MAD ABOUT RED

Easy Wave Red Velour Petunia & Easy Wave Yellow Petunia



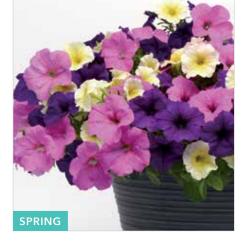
WAVE PLUG & PLAY COMBOS





LOVIN' IT

Easy Wave Yellow Petunia, Easy Wave Neon Rose Petunia & Combo Blue Petunia



ROYAL PASSION

Easy Wave Burgundy Velour Petunia, Easy Wave Plum Vein Petunia & Combo Blue Petunia



SURFIN' SAFARI



ROSY KISSES

Easy Wave Yellow Petunia, Easy Wave Rosy Dawn Petunia & Shock Wave Deep Purple Petunia



FIRECRACKER

SPRING

Shock Wave Coral Crush Petunia, Shock Wave Denim Petunia & Shock Wave Deep Purple Petunia



SWEETHEART

Easy Wave Red Velour Petunia & Easy Wave Pink Passion Petunia



WAVE PLUG & PLAY COMBOS

FLY ME TO THE MOON

Easy Wave Burgundy Velour Petunia, Easy Wave White Petunia & Easy Wave Neon Rose Petunia



RAZZLE DAZZLE

NEW Kabloom Blue Calibrachoa, Easy Wave Pink Passion Petunia & Quartz XP Burgundy with Eye Verbena



FIRE N NICE



All varieties in each Plug & Play Combo must be transplanted at the same time in order to finish at the same time. Sow times may vary. NOTE: Individual varieties sold separately.

SPRING

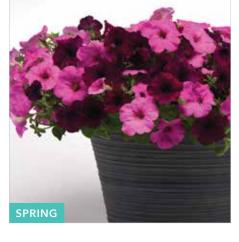
SEEING STARS

Easy Wave Burgundy Star Petunia & **Easy Wave Neon Rose Petunia**



AFTER DARK

Easy Wave Burgundy Velour Petunia & **Easy Wave Neon Rose Petunia**



ROYAL SPARKLER

Easy Wave Burgundy Velour Petunia,

Easy Wave Silver Petunia & Glitz Euphorbia

CORAL LIGHTS

Easy Wave Yellow Petunia, Shock Wave Coral Crush Petunia & Glitz Euphorbia



PUTTIN' ON THE PINK



WAVE PLUG & PLAY COMBOS



Easy Wave Violet Petunia & Easy Wave Neon Rose Petunia

TWINKLE TWINKLE

Easy Wave Burgundy Star Petunia & Shock Wave Coconut Petunia



<text>



O CANADA

Easy Wave Red Petunia & Easy Wave White Petunia

BLUE HAWAII





BEACH PARTY

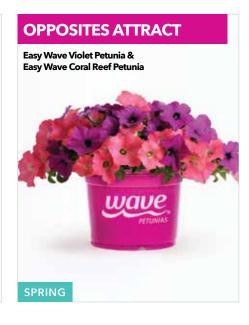
Shock Wave Denim Petunia & Shock Wave Pink Shades Petunia



COCO COLADA

Shock Wave Coconut Petunia & Shock Wave Coral Crush Petunia





THE FLAG

Easy Wave Red Petunia, Easy Wave White Petunia & Easy Wave Blue Petunia



RED, WHITE & BLUES

Shock Wave Coconut Petunia, Shock Wave Denim Petunia & Shock Wave Red Petunia



Combine container and patio vegetables with easy-to-grow flowers like Wave petunias and French marigolds for practical and pretty combos that are good enough to eat!



LUNCH DATE





All varieties in each Plug & Play Combo must be transplanted at the same time in order to finish at the same time. Sow times will vary. NOTE: Individual varieties sold separately.



PLUG & PLAY COMBOS WITH PREMIUM ANNUALS

CHRISTMAS IN JULY

Lucky Star™ White Pentas & Lucky Star Dark Red Pentas



SHINING STARS

Lucky Star Lavender Pentas, Lucky Star Deep Pink Pentas & Lucky Star White Pentas



STAR BRIGHT

Lucky Star Dark Red Pentas, Lucky Star Deep Pink Pentas & Lucky Star Lavender Pentas



All varieties in each Plug & Play Combo must be transplanted at the same time in order to finish at the same time. Sow dates may vary. NOTE: Individual varieties sold separately.

AIRBRUSH'D

Tattoo™ Raspberry Vinca, Titan™ Polka Dot Vinca & Titan Rose Halo Vinca



BERRY BURST

Titan Really Red Vinca, Tattoo Black Cherry Vinca & Titan Rose Halo Vinca



SUMMER SMOOTHIE

Valiant™ Orchid Vinca, Valiant Pure White Vinca & Valiant Burgundy Vinca



These combos featuring popular and unique seed items like Serena[®] and Serenita[®] angelonia, Zahara[®] zinnia and Purple Prince alternanthera make a big statement at retail and on home patios. These standouts deliver end-cap or front-of-store appeal, with several offering built-in Wave recognition.

SEASIDE DELIGHT

Valiant Orchid Vinca & Serena Blue Angelonia



SUMMER CANDY Titan Really Red Vinca & Serena White Angelonia



PEACH MELBA PARFAIT

Valiant Apricot Vinca, Serenita Pink Angelonia & Silver Falls Dichondra



INK'D

Tattoo Raspberry Vinca & Serena Blue Angelonia



PLUG & PLAY COMBOS WITH PREMIUM ANNUALS



SUN JEWELS





All varieties in each Plug & Play Combo must be transplanted at the same time in order to finish at the same time. Sow dates may vary. NOTE: Individual varieties sold separately.



CHERRY JAM

Chocolate Covered Cherry Premium Sun Coleus, Valiant Punch Vinca & Purple Prince Alternanthera



236 PLUG & PLAY

NEW FOR 2020! Three bright, new ornamental pepper combos promise huge Summer through Autumn sales. These premium container combos love the heat and sun, and they deliver colour and interest from their early fruiting stage through Autumn.



Santos Orange Ornamental Pepper & Hot Pops Purple Ornamental Pepper

AMAZING COLOUR AT ALL STAGES

These multicolour ornamental pepper plants can be sold when their fruit first starts to show you don't have to wait for them to change from green to a sellable colour! This means they'll spend less time on the bench, and get to the store faster.

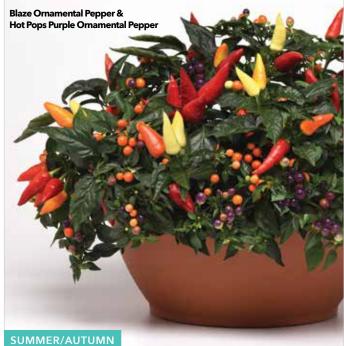
SUMMER/AUTUMN

NEW COLOR CARNIVAL

Wicked Ornamental Pepper & Santos Orange Ornamental Pepper



NEW FIRELIGHTER



NEW FOR 2020! Dramatic good looks and predictable colour make these combos perfect for larger containers! Six new premium combos join our popular group combining first-year-flowering, mid-season perennials with annuals to make a big statement on home patios from Summer through Autumn.



NEW SUN SEA AND ROSÉ



NEW PINK PURSUIT

PowWow White Echinacea, Jolt™ Pink Magic Interspecific Dianthus, Blue Spear Lavandula & ColorGrass® Festina Festuca



All varieties in each Plug & Play Combo must be transplanted at the same time to finish at the same time. Sow times will vary. NOTE: Individual varieties sold separately



NEW FEELING FRISKY

NEW DATE KNIGHT

PowWow White Echinacea, Starship™ Scarlet Lobelia, Blue Spear Lavandula & ColorGrass Festina Festuca



NEW SUMMER LOVIN'

PowWow White Echinacea, Jolt Cherry Interspecific Dianthus & Starship Deep Rose Lobelia



TUSCAN SUN

Starship Scarlet Lobelia, Mesa Bright Bicolor Gaillardia & Sirocco Anemanthele



VERY VESUVIUS

Starship Scarlet Lobelia, Sunfire Coreopsis & Ellagance Purple Lavender



SUMMER/AUTUMN

PANAMERICAN SEED / SALES & CUSTOMER SERVICE

THE AMERICAS

622 Town Road West Chicago, Illinois 60185-2698 USA

630 231-1400 800 231-7065 Customer Service Fax: 630 293-2557 Administrative & Marketing Fax: 630 562-7800

Sean Valk

GLOBAL SALES DIRECTOR

Office: 630 588-3368 Mobile: 331 232-9344 Fax: 630 562-7961 svalk@panamseed.com

Mark Gross

Office: 630 588-3250 Mobile: 630 234-4576 Fax: 630 293-2557 mgross@panamseed.com

EUROPE

P.O. Box 63 1606 ZH Venhuizen The Netherlands

+31 (0) 228-541-844 Fax: +31 (0) 228-543-440

Jeroen Star SALES MANA<u>GER</u>

Office: +31 (0) 228-541-844 Mobile: +31 (0) 653-475-912 jstar@panamseed.com

Jean-François Ignasse SALES

Office: +31 (0) 228-541-844 Mobile: +31 (0) 653-155-738 Fax: +31 (0) 228-543-440 jf.ignasse@panamseed.com

ASIA

Naoto Takamura

Office: +81 0551-36-5677 Mobile: +81 070-4143-9308 ntakamura@ballhort.com

Camila Valle

Mobile: 858 342-9955 Fax: 630 562-7933 cvalle@ballhort.com

Josh Kirschenbaum VEGETABLE SALES

Office: 630 588-3429 Mobile: 541 914-5548 Fax: 630 293-2557 jkirschenbaum@panamseed.com

John Cotton

REGIONAL ACCOUNT MANAGER

Mobile: 973 703-9467 Fax: 630 520-9094 jcotton@panamseed.com

Steven Engel

REGIONAL ACCOUNT MANAGER

Mobile: 979 472-1787 Fax: 630 562-7624 sengel@panamseed.com

Kelli Gibson

REGIONAL ACCOUNT

Mobile: 480 939-1455 Fax: 630 562-7626 kgibson@panamseed.com

Pavel Koltsov SALES

Office: +31 (0) 228-541-844 Mobile: +7 965-700-54-54 pkoltsov@panamseed.com

Joop Kooijman SALES

Office: +31 228-541-844 Mobile: +31 629-211-960 jkooijman@panamseed.com

Sylvia Rocheteau

Office: +31 228-541-844 Mobile: +33 688-507-712 srocheteau@panamseed.com

Anton de Wit

SALES

Office : +31 (0) 228-321-916 Mobile: +31 (0) 651-423-065 Fax: +31 (0) 847-367-921 awit@panamseed.com

Tracy Chang

Phone (China): +86 1599-559-9280 tchang@ballhort.com

Jerry Gorchels

REGIONAL ACCOUNT MANAGER

Office: 630 588-3179 Mobile: 630 212-8687 Fax: 630 562-7723 jgorchels@panamseed.com

Saima Husain

REGIONAL ACCOUNT MANAGER

Mobile: 786 256-2227 Fax: 630 520-9142 shusain@panamseed.com

Teresa Hoffman

CUSTOMER SERVICE

Office: 630 588-3209 Fax: 630 293-2557 thoffman@panamseed.com

Amy Scroggins

CUSTOMER SERVICE

Office: 630 206-3877 Fax: 630 293-2557 ascroggins@panamseed.com

Sjaak Ros

SALES

Office: +31 (0) 228-545-090 Mobile: +31 (0) 651-255-092 Fax: +31 (0) 228-543-440 sros@panamseed.com

Ron Zandstra

Office: +31 (0) 228-545-096 Mobile: +31 (0) 620-011-412 Fax: +31 (0) 228-543-440 rzandstra@panamseed.com

Willa Jing You SALES

Office: +31 (0) 228-541-844 Mobile: +31 (0) 622-657-979 Fax: +31 (0) 228-543-440 jyou@panamseed.com

Adriana Antonio

CUSTOMER SERVICE

Office: 630 588-3134 Fax: 630 293-2557 aantonio@panamseed.com

Ariadna Galvan

CUSTOMER SERVICE

Office: 630 588-3271 Fax: 630 293-2557 agalvan@panamseed.com

Melissa Bruington

CUSTOMER SERVICE

Office: 630 588-3327 Fax: 630 293-2557 mbruington@panamseed.com

Kathy Rigdon

CUSTOMER SERVICE

Office: 630 588-3418 Fax: 630 293-2557 krigdon@panamseed.com

Doug Blocker

ACCOUNTS RECEIVABLE Office: 630 588-3247 Fax: 630 562-7652 dblocker@ballhort.com

Esther Roet

CUSTOMER SERVICE

Office: +31 (0) 228-545-095 Fax: +31 (0) 228-543-440 eroet@panamseed.com

Paula Vis

CUSTOMER SERVICE

Office: +31 (0) 228-545-094 Fax: +31 (0) 228-543-440 pvis@panamseed.com

Astrid de Wit

CUSTOMER SERVICE

Office: +31 (0) 228-545-092 Fax: +31 (0) 228-543-440 adewit@panamseed.com

Jane Vathesatogkit

Phone (Thailand): +66 53-111-728 jane@sodsailanna.com

Office (USA): +1 630 588-2187 Fax: +1 630 293-2557

ksun@panamseed.com

Kevin Sun



PANAMERICAN SEED / AWARD WINNERS

USE THE POWER OF GLOBAL RECOGNITION

The "stamp of approval" on these reliable, proven varieties assures landscapers and home gardeners that they are selecting and planting superior performers. Growers and retailers benefit from the added promotional efforts that these winners receive, both at their debut and for years to come.



ALL-AMERICA SELECTIONS

Angelonia Serenita Pink Basil Dolce Fresca Basil Purple Ruffles Basil Sweet Dani Lemon Coreopsis Early Sunrise Dianthus Ideal Select Violet Interspecific Dianthus Jolt Pink Dill Fernleaf Echinacea 'Cheyenne Spirit' Echinacea PowWow Wild Berry Eggplant Gretel Eggplant Hansel Gaillardia Mesa Yellow Gaura 'Sparkle White' Ornamental Millet Purple Majesty Ornamental Pepper Black Pearl Ornamental Pepper Chilly Chili Osteospermum Akila Daisy White Pepper Aji Rico Pepper Cajun Belle Pepper Mad Hatter Petunia Orchid Daddy Double Petunia Pirouette Purple Spreading Petunia Tidal Wave Red Velour Spreading Petunia Tidal Wave Silver New Spreading Petunia Wave Carmine Velour Spreading Petunia Wave Lavender Spreading Petunia Wave Purple Classic Snapdragon Rocket Bronze Snapdragon Rocket Golden Snapdragon Rocket Orchid Snapdragon Rocket Red Snapdragon Rocket Rose Shades Snapdragon Rocket White Tomato Candyland Red Tomato Midnight Snack Vinca Jams 'N Jellies Blackberry Vinca Pacifica XP Burgundy Halo Zinnia Double Zahara Cherry Zinnia Double Zahara Fire Zinnia Zahara Starlight Rose

ALL-AMERICA SELECTIONS REGIONAL

Eggplant Patio Baby

FLEUROSELECT GOLD MEDAL

Alyssum Snow Crystals Armeria Ballerina Red Armeria Ballerina White Celosia Bombay Purple Coreopsis Early Sunrise Cosmos Sonata White Echinacea 'Cheyenne Spirit' Gaillardia Mesa Yellow Gaura 'Sparkle White' Lavandula Bandera Purple Lavandula Ellagance Purple Lavandula Ellagance Sky



Madonna Leucanthemum Fleuroselect Gold Medal

New Leucanthemum Madonna Nemesia Sundrops Mixture Osteospermum Akila Daisy White Penstemon Carillo Red Spreading Petunia Tidal Wave Red Velour Spreading Petunia Wave Lavender Phlox Grammy Pink & White Viola Sorbet XP Delft Blue Zinnia Double Zahara Fire Zinnia Zahara Sunburst

FLEUROSELECT QUALITY MARK

Alyssum Easter Bonnet Violet Aquilegia Clementine Mixture Aquilegia Winky Single Red-White Aquilegia Winky Single Rose-Rose Asclepias Silky Gold Bellis Bellissima Rose Bellis Bellissima Rose Bicolor Bellis Bellissima White Coreopsis Sunfire Cosmos Sonata Carmine Cosmos Sonata Pink Cosmos Sonata Pink Blush Dahlia Figaro Orange Shades Dahlia Figaro Red Shades Dahlia Figaro Violet Shades Dahlia Figaro Yellow Shades Dianthus Ideal Select Rose Gomphrena QIS Carmine Lavandula Ellagance Ice Lobelia Regatta Blue Splash Lobelia Regatta Rose Lobelia Riviera Midnight Blue Lobelia Riviera Rose Lobelia Riviera Sky Blue French Marigold Gate Orange Nepeta Pink Cat Ornamental Pepper Black Pearl Spreading Petunia Tidal Wave Silver Phlox Promise Peach Phlox Promise Rose Phlox Promise White Salvia Patio Deep Blue Salvia Patio Sky Blue Scabiosa Pink Diamonds Vinca Pacifica XP Burgundy Halo

FLEUROSELECT NOVELTY

Alyssum Clear Crystal White Aquilegia Clementine Rose Aquilegia Winky Single Red-White Aquilegia Winky Single Early Sky Blue Armeria Ballerina Red Armeria Ballerina White Bellis Bellissima Rose Bellis Bellissima Rose Bellis Bellissima White Celosia Kosmo Purple Red



Wave Carmine Velour Spreading Petunia All-America Selections National Winner

Coreopsis Double the Sun Coreopsis Sunfire **Cosmos Antiquity** Cosmos Sonata Carmine Cosmos Sonata Pink Cosmos Sonata Pink Blush Dahlia Figaro Orange Shades Dahlia Figaro Red Shades Dahlia Figaro Violet Shades Digitalis Dalmatian Purple Gaura Sparkle White Heuchera Melting Fire Iberis Whiteout New Lavandula Bandera Deep Purple New Lavandula Bandera Deep Rose Lavandula Bandera Purple Lavandula Ellagance Purple Lavandula Ellagance Sky Lobelia Regatta Blue Splash Lobelia Regatta Rose Lobelia Riviera Midnight Blue Lobelia Riviera White French Marigold Bonanza Deep Orange Penstemon Carillo Red Ornamental Pepper Black Pearl Perovskia Blue Steel Spreading Petunia Tidal Wave Red Velour Phlox Promise Peach Salvia Lighthouse Purple Salvia New Dimension Blue New Salvia New Dimension Rose Salvia Patio Deep Blue Salvia Patio Sky Blue New Salvia Salvatore Blue Scabiosa Pink Diamonds Silene Starry Dreams Verbena Quartz XP Purple Vinca Pacifica XP Burgundy Halo Zinnia Double Zahara Bright Orange Zinnia Double Zahara Cherry Zinnia Double Zahara Fire Zinnia Double Zahara White Zinnia Zahara Starlight Rose Zinnia Zahara Sunburst

ROYAL HORTICULTURAL SOCIETY AWARD OF GARDEN MERIT

Alyssum Easter Bonnet Lavender Alyssum Easter Bonnet Violet Aquilegia Swan Burgundy And White Aquilegia Swan Yellow Dianthus Amazon Neon Purple Dianthus Amazon Rose Magic Dianthus Dynasty Orchid Dianthus Ideal Select Rose Dianthus Ideal Select WhiteFire Dianthus Sweet Coral Dianthus Sweet Scarlet New Guinea Impatiens Divine Violet

PANAMERICAN SEED / PROTECTION INFORMATION

U.S. UTILITY PATENTS US 7,087,819

Ornamental Pepper Chilly Chili Ornamental Pepper Medusa

US 7,393,995

Ornamental Pepper Chilly Chili Ornamental Pepper Medusa Ornamental Pepper Sangria

US 7,642,436

Fuseables® Petunia Blueberry Lime Jam Fuseables® Petunia Lime Coral Petunia Debonair™ Black Cherry Petunia Debonair™ Dusty Rose Petunia Sophistica® Antique Shades Petunia Sophistica® Antique Shades Petunia Sophistica® Lime Bicolor Petunia Sophistica® Lime Green Petunia Sophistica® Lime Green Petunia Sophistica® Twilight Spreading Petunia Easy Wave® Berry Velour Spreading Petunia Easy Wave® Red Velour Spreading Petunia Tidal Wave® Red Velour

US 7,696,416

Ornamental Pepper Sangria

US 7,915,504

Alyssum Clear Crystal® Lavender Shades Alyssum Clear Crystal® Mixture Alyssum Clear Crystal® Purple Shades Alyssum Clear Crystal® White

US 7,982,110 Echinacea Cheyenne Spirit Echinacea PowWow® Wild Berry

US 9,301,465 Ornamental Pepper Hot Pops Purple

US 9,307,712 Ornamental Pepper Hot Pops Yellow

US 9,320,212

French Marigold Hot Pak™ Gold French Marigold Hot Pak™ Mixture

US 9,326,464

French Marigold Hot Pak™ Harmony French Marigold Hot Pak™ Mixture

US 9,326,465 French Marigold Hot Pak™ Mixture French Marigold Hot Pak™ Yellow

US 9,326,466 French Marigold Hot Pak™ Mixture French Marigold Hot Pak™ Spry

US 9,326,467 French Marigold Hot Pak™ Mixture French Marigold Hot Pak™ Orange

US 9,326,468 French Marigold Hot Pak™ Flame French Marigold Hot Pak™ Mixture

US 9,451,747

Vinca Valiant™ Mixture Vinca Valiant™ Pure White

US 9,451,748 Vinca Valiant™ Burgundy Vinca Valiant™ Mixture

US 9,451,749 Vinca Valiant[™] Apricot Vinca Valiant[™] Mixture

US 9,451,750 Vinca Valiant™ Orchid

US 9,451,751 Vinca Valiant[™] Mixture Vinca Valiant[™] Punch

US 9,451,752

Vinca Valiant™ Lilac Vinca Valiant™ Mixture

U.S. UTILITY PATENTS APPLIED FOR

Impatiens Beacon™ Bright Red Impatiens Beacon™ Coral Impatiens Beacon™ Orange Impatiens Beacon™ Salmon Impatiens Beacon™ Violet Shades Impatiens Beacon™ White Impatiens Beacon™ Red White Mixture Impatiens Beacon™ Select Mixture French Marigold Fireball French Marigold Strawberry Blonde Pentas Glitterati™ Purple Star Vinca Titan™ Dark Red Vinca Titan™ Really Red

U.S. PLANT PATENTS

PP 26,516 Calibrachoa Kabloom™ Yellow

U.S. PLANT VARIETY PROTECTIONS

Celosia Kosmo Pink - 200400022 Coleus, Premium Shade Kong® Red - 200500015 Coleus, Premium Shade Kong® Rose - 200500017 Coleus, Premium Shade Kong® Salmon Pink - 200900035 Erysimum Citrona® Orange - 200600167 Erysimum Citrona® Yellow - 200600168 Helenium Dakota Gold - 200600009 Lobelia Regatta Lilac Splash - 200600188 Matthiola Katz Ruby - 201200438 Myosotis Mon Amie Blue - 200800070 Ornamental Pepper Black Pearl - 200500020 Ornamental Pepper Medusa - 200000140 Salvia interspecific Big Blue - 201700218 Vinca Jams 'N Jellies™ Blackberry - 201100526 Vinca Mediterranean Lilac - 9800182 Vinca Mediterranean XP Dark Red - 200900043 Vinca Mediterranean XP Hot Rose - 200900084 Vinca Mediterranean XP Peach - 200900080 Vinca Mediterranean XP Red - 200900081 Vinca Mediterranean XP Strawberry - 200900083 Vinca Mediterranean XP White - 200900053 Vinca Pacifica XP Apricot - 9800181 Vinca Pacifica XP Burgundy Halo - 200700272 Vinca Pacifica XP Dark Red - 200600189 Vinca Pacifica XP Magenta Halo - 200500216 Vinca Pacifica XP Punch - 9400248

Vinca Pacifica XP Really Red - 200600190 Vinca Pacifica XP Rose Halo - 200500218 Zinnia Double Zahara™ Cherry - 201600027 Zinnia Double Zahara™ Fire - 201600032 Zinnia Double Zahara™ Yellow - 201600028 Zinnia Zahara® Cherry - 201600029 Zinnia Zahara® Fire - 201000090 Zinnia Zahara® Red - 201600030 Zinnia Zahara® Red - 201600030 Zinnia Zahara® White - 201400297 Zinnia Zahara® Yellow - 201500214 Zinnia Zahara® XL Pink - 201200482 Zinnia Zahara® XL Yellow - 201200485 Zinnia Zahara® XL Yellow - 201200483

U.S. PLANT VARIETY PROTECTIONS APPLIED FOR

Coreopsis SunKiss Cuphea Pink Shimmer French Marigold Bonanza™ Bolero French Marigold Bonanza™ Deep Orange French Marigold Flamenco Ornamental Oregano Kirigami Vinca Tattoo™ Black Cherry Vinca Tattoo™ Black Cherry Vinca Tattoo™ Raspberry Vinca Tattoo™ Raspberry Vinca Tattoo™ Tangerine Zinnia Double Zahara™ Raspberry Ripple Zinnia Double Zahara™ Salmon

EUROPEAN COMMUNITY PLANT BREEDER'S RIGHTS

Celosia Neo™ Gold - 46508 Celosia Neo™ Orange - 44055 Celosia Neo™ Pink - 43694 Celosia Neo™ Red - 46509 Celosia Neo™ Rose - 43693 Coreopsis SunKiss - 46544 Echinacea PowWow® Wild Berry - 35233 Heuchera Melting Fire - 20557 Lavandula Ellagance Pink - 40059 Lavandula Lavance Deep Purple - 48822 Leycesteria Jealousy - 37273 Salvia interspecific Big Blue - 49559

EUROPEAN COMMUNITY PLANT BREEDER'S RIGHTS APPLIED FOR

Lavandula Avignon Early Blue Lavandula Blue Spear

EUROPEAN COMMUNITY UTILITY PATENTS APPLIED FOR

French Marigold Fireball French Marigold Strawberry Blonde Fuseables® Petunia Blueberry Lime Jam Fuseables® Petunia Lime Coral Petunia Debonair™ Black Cherry Petunia Debonair™ Dusty Rose Petunia Debonair™ Lime Green Petunia Sophistica® Antique Shades Petunia Sophistica® Blackberry Petunia Sophistica® Lime Bicolor Petunia Sophistica® Lime Green Petunia Sophistica® Twilight Spreading Petunia Easy Wave® Berry Velour Spreading Petunia Easy Wave® Burgundy Velour Spreading Petunia Easy Wave® Red Velour Spreading Petunia Tidal Wave® Red Velour

PANAMERICAN SEED / TERMS & CONDITIONS OF SALE

ACCEPTANCE OF TERMS

These terms and conditions shall govern orders for Goods placed with Seller. Purchaser acknowledges that these terms and conditions and Seller's proposal, if any, constitute the entire agreement between Seller and Purchaser and supersede any prior agreements and representations Any prior or contemporaneous promises, agreements, negotiations or representations whether oral or written or created the custom, usage or course of dealing are also superseded by these terms and conditions. No modification of these terms and conditions shall be effective unless in writing signed by Seller. Placement of the order shall constitute Purchaser's acceptance of these terms and conditions. All orders are subject to acceptance by Seller at our corporate office. Any different or additional terms in any documents from Purchaser are objected to and rejected, are deemed to materially alter these terms, and will not become part of any contract between Seller and Purchaser.

PRICING

Prices and availability are subject to Prices and availability are subject to change without notice. Although Seller tries to assure accuracy, it shall not be held responsible for typographical or other errors in the price list. Purchaser's price is determined by referring to the product price and deducting any discount for which Purchaser may qualify. Please contact your sales representative for more information.

TERMS

All payments must be received before Goods are shipped unless otherwise agreed to in writing by Seller. Payment terms can be seen on your Order Confirmation or at the appropriate Terms & Conditions page at panamseed. com for North American, European and International credit-approved customers. A 2% per month finance charge (24% annual rate) will be added to all past due balances at the end of each month. Seller has no obligation to ship any Goods until payment in full is received.

MINIMUM ORDERS

The minimum quantity listed in the price list for each variety is the minimum order for that variety. Seller reserves the right to fill orders using pre-packaged inventory when available

FREIGHT & HANDLING CHARGES, INSPECTION, DAMAGED GOODS

(a) The freight and handling charge on Purchaser's invoice covers shipment of the Goods to Purchaser's destination. Seller will pay to return damaged goods, for replacement Goods or provide Purchaser with a credit for damaged Goods if the steps listed in Section (b) below are followed. PURCHASER WILL NOT REFUSE GOODS, OR THE RIGHT TO FILE A CLAIM IS LOST AND PURCHASER WILL STILL BE LIABLE FOR THE MATERIAL AND THE FREIGHT.

(b) When Purchaser receives shipment, it shall immediately: 1) count all cartons; 2) inspect all cartons for external damage; 3) check for open or resealed cartons; a) note any damages, shortages, open or resealed cartons on the delivery receipt; the carrier's representative must also sign the receipt; and 5) open all boxes immediately and inspect for damage, including, but not limited to, material shortages. PURCHASER MUST NOTIFY SELLER WITHIN TWO (2) BUSINESS DAYS IF A SHIPMENT IS

DAMAGED by calling its Customer Service Representative to report the damage and receive details on what is needed to file a claim. The Goods shall be deemed accepted by the Purchaser on the earlier of (a) notice of acceptance to Seller, or (b) ten (10) days after delivery. Any claims for shortage, non-delivery, damage or defect which would reasonably be discoverable in the course of such inspection shall be waived unless Purchaser notifies Seller in writing within ten (10) days after delivery of the goods to which the claim relates.

PACKAGING FEES

All orders will be filled in bulk and/or predetermined packet sizes unless special packaging instructions are given. If special packaging is requested, a packaging fee will apply and additional time may be required to complete the order. Purchaser shall contact Customer Service if it requires additional details.

CUSTOM SEED TREATMENTS

If a custom treatment is requested, a \$25 (U.S. Dollars) fee per batch will apply and additional time may be needed to complete the order.

PHYTOSANITARY CERTIFICATES CHARGE

Depending on the Goods ordered by Purchaser, and the location of the Purchaser, Phytosanitary Certificates may be required to comply with government regulations. If the shipment requires Phytosanitary Certificates, an additional cost will be charged.

DELIVERY DATES

Please indicate the required ship date when the order is being placed. No orders can be accepted without a requested ship date. All shipping and delivery dates provided by the Seller are approximate.

DELAYS, SHORTAGES & SUBSTITUTIONS

Seller shall not be responsible for delays in delivery or for losses resulting from such delays. Seller reserves the right to make partial shipment. Seller will not be liable for any delay in performing or for partial or complete failure to perform hereunder if such delay or failure is due to fire, explosion, flood, Act of God, force majeure, accident, war, intervention of governmental authorities, strikes, labor disputes, material shortages, transportation delays, any act or omission of Purchaser, its agents or employees or any party retained by, through or under the control of Purchaser, or any other cause similar or dissimilar which is beyond Seller's reasonable control.

INSURANCE

Seller does not insure shipments via Air Mail, but insures all other shipments in transit, in commercially reasonable amounts

SHIPPING

Any shipment outside of North America will be charged normal carrier rates.

RETURNS

No Goods may be returned without first obtaining written authorization. Authorized returns will only be considered if they are in original, unopened Seller packages. All returns are subject to a 15% service charge.

No credit or replacement will be given for Goods returned after nine (9) months from the ship date.

Upon receiving authorization, returns can be shipped to:

PanAmerican Seed Attn: Returns 622 Town Road West Chicago, Illinois USA 60185-2698

SEED COUNT

All seed counts given are approximate quantities due to variation based on a lot by lot comparison. Seed counts may also vary widely between colors and series

NOTICE REGARDING SEED-BORNE DISEASES

Seller makes no representation regarding the freedom from seed-borne diseases of the seed sold and disclaims any liability relating to such diseases, whether previously known to exist or not identified until such seed is grown.

RESERVATION OF OWNERSHIP

In the event of bankruptcy, products delivered by the Seller remain the property of Seller until the Purchaser has paid the purchase price amount. This reservation of ownership is also extended to claims that Seller may obtain towards Purchaser on account of the Purchaser's failure to meet their obligations to Sale.

LIMITATION OF WARRANTY

Seller warrants, to the extent required by law, that Goods conform to the description appearing in Seller's catalog and on container labels, within recognized tolerances. THE FOREGOING WARRANTIES ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN, WHETHER EXPRESSED OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT.

LIMITATION OF REMEDY PURCHASER'S SOLE AND EXCLUSIVE

REMEDY SHALL BE REFUND OF THE PURCHASE PRICE. SELLER'S LIABILITY, WHETHER FOR BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, PRODUCTS LIABILITY OR ANY OTHER THEORY OF LIABILITY, IS LIMITED TO THE AMOUNT OF THE PURCHASE PRICE. PURCHASER AGREES THAT IN NO EVENT, REGARDLESS OF THE FORM OF LEGAL ACTION OR THE THEORY OF RECOVERY, WILL SELLER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUES.

USE RESTRICTION

Merchandise is not intended for sale to large-scale commercial growers of herbs or vegetables. Use, transfer and/or acquisition of seed constitutes acceptance of a limited right to use the seed solely to grow a right couse the seed solely to grow a single crop for food, feed, processing or ornamental purposes. No other use is permitted. Any transfer of seed must be accompanied by this use restriction.

MANDATORY ARBITRATION

ANY CLAIM WHICH PURCHASER MAY HAVE AGAINST SELLER ARISING OUT OF OR RELATING TO THE SALE OF THE GOODS HEREUNDER MUST BE BROUGHT, IF AT ALL, WITHIN TWELVE (12) MONTHS OF THE DELIVERY OF THE GOODS WHICH ARE THE SUBJECT OF THE CLAIM AND SHALL BE SETTLED BY BINDING ARBITRATION IN ACCORDANCE WITH THE COMMERCIAL ARBITRATION RULES OF THE AMERICAN ARBITRATION ASSOCIATION, SAID ARBITRATION TO BE VENUED IN COOK OR DUPAGE COUNTIES, ILLINOIS.

GOVERNING LAW, JURISDICTION & VENUE

The laws of the State of Illinois, including but not limited to the Uniform Commercial Code as adopted therein, shall govern all matters arising out of or relating to Seller's sale of merchandise. ANY DISPUTE NOT SUBJECT TO ARBITRATION AND ANY ACTION TO ENFORCE AN ARBITRATION AWARD ARISING OUT OF OR RELATING TO THE SALE OF MERCHANDISE HEREUNDER SHALL BE MAINTAINED IN THE STATE OR FEDERAL COURTS LOCATED IN DUPAGE OR COOK COUNTIES, ILLINOIS, AND PURCHASER SUBMITS TO THE JURISDICTION OF AND VENUE IN SAID COURTS.

INDEMNITY

By accepting the Goods, Purchaser agrees to indemnify, defend and hold harmless Seller, its affiliates, successors and assigns from and against any claim or liabilities, claims, demands, damages, losses and expense (including attorney's fees) asserted by any or all transferees of such Goods or users of the products of such Goods (i) arising from any act or omission of Customer or its employees or agents, or (ii) who were not notified by Purchaser in writing of Limitation of Warranty, Limitation of Remedy, Mandatory Arbitration, Governing Law, Jurisdiction and Venue, and Notice Regarding Seed-Borne Diseases, in language substantially equivalent to that contained in these Terms and Conditions of Sale.

TRADEMARKS

Trademarks are and shall remain the property of Ball Horticultural Company, unless otherwise indicated. Nothing herein shall grant Purchaser a license to use any such trademark.

SALE LIMITATIONS PANAMERICAN SEED PRODUCTS ARE NOT AVAILABLE FOR SALE IN AND MAY NOT BE RESOLD INTO AUSTRALIA, NEW ZEALAND, KOREA, BRAZIL AND SOUTH AFRICA. THE COMPANY'S PRODUCTS MAY NOT BE SOLD, DIVERTED, TRANSFERRED OR RE-EXPORTED, DIRECTLY OR INDIRECTLY, TO ANY INDIVIDUAL, ENTITY, OR DESTINATION THAT IS SUBJECT TO UNITED STATES OR UNITED NATIONS SANCTIONS PROGRAMS OR EMBARGOES (INCLUDING, BUT NOT LIMITED TO OFAC SANCTIONS PROGRAMS AND THOSE LISTED ON OFAC'S "SPECIALLY DESIGNATED NATIONALS" LIST) WITHOUT AN APPROPRIATE EXPORT LICENSE.

ALL SHIPMENTS MUST BE SHIPPED IN COMPLIANCE WITH THE FOREIGN CORRUPT PRACTICES ACT AND THE UK BRIBERY ACT.

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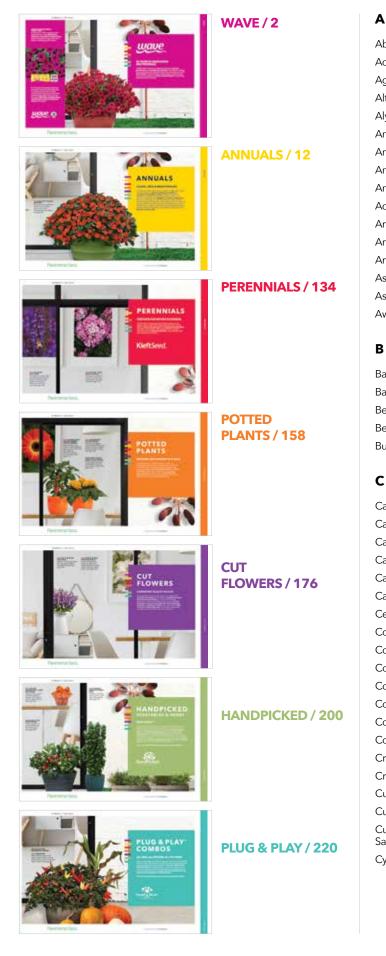
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