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.

**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.

**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.

**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.
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.
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.
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
Petunia x hybrid

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 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 blue-purple 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.

Plug & Play Combo Firecracker featuring Shock Wave Coral Crush, Deep Purple and Denim petunias, see page 230.
Use Shock Wave petunias in awe-inspiring Fuseables® Combos like this!

Fuseables Ooh La La, see page 225.

Deep Purple

Spark Mixture

Volt Mixture

Coconut  Pink Vein  Pink Shades  Rose

Denim  Coral Crush  Red  Deep Purple

Find product & growing info at panamseed.com / SHOCK WAVE PETUNIA
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.

**Bold and creative!**

You’ll always stand out in the petunia market with Easy Wave. Bring in a wide array of decorator colours. Put the huge versatility to work – they’re perfect for solo and mixed planters and baskets, gardens and landscapes. Best of all, these all-season salesmakers deliver customer-pleasing performance.

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

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

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Easy Wave Red

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PanAmerican Seed.
The Authentic Trailing Petunia

Wave has set the standard for petunia landscape performance and continues to transform gardens around the globe. Pro landscapers and home gardeners alike choose low-growing, wide-spreading Wave varieties for every sunny setting: gardens, baskets, large colour bowls and more.

Wave® Series F1

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.
Big, bold 3D colour!
Extend your season with this strong finisher - grown and marketed in 8-in./20-cm pots and 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 crawl along and over walls and fences.

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.

Silver
All-America Selections National Winner; Fleuroselect Quality Mark

Hot Pink

Cherry

Purple

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

Tidal Wave Silver and Red Velour
Twice the spread...double the colour!
Wow 'em with Cool Wave - hands down, it's the fastest-growing, longest-lasting, truly trailing pansy for Spring and Autumn.

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.

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.

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 show lighter colour and broader yellow eye.

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

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.

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

Find product & growing info at panamseed.com / COOL WAVE PANSY
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

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.

ANGELONIA * 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 water-wise, heat-loving plants.
- Plants grow up to 50% larger in Florida, Southeast Asia and similar southern climates.

**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).

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

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6-in./15-cm pot

PanAmerican Seed
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.

**ABUTILON**

*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.

**AGERATUM**

*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.

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

**Easter Bonnet Series**
- **Height:** 4 to 10 in./10 to 25 cm
- **Spread:** 10 to 12 in./25 to 30 cm
- **Seed supplied as:** Coated, Multi-Seed Pellets
- **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.**

**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.**

**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.**

**ANEMANTHELE**
See ColorGrass, page 42.

**ANEMONE**
See Cut Flowers, page 178.

**ANGELONIA**
See page 14.

**ANTIRRHINUM**
See Snapdragon.

**AQUILEGIA**
See Perennials, page 136.

**ARABIS**
See Perennials, page 138.

**ARMERIA**
See Perennials, page 138.

**ASCLEPIAS**
See Cut Flowers, page 178.

Find product & growing info at panamseed.com / ALYSSUM 17
**ASTER**

*Callistephus chinensis*

**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.

**Fuseables Healing Waters**, see page 225.

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**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.

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**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 Snowtopia.

**Snowtopia**

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

Use Blutopia bacopa in stunning Fuseables Combos like this!
BEGONIA
Begonia x hybrid

**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.

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**Dragon Wing® Series F1**

- **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**

- BabyWing Mixture
- BabyWing White Bronze Leaf
MEGAsize + MEGAColour = MEGASales!

This fresh, high-energy begonia option has quickly proven itself in the marketplace with great timing benefits, one-of-a-kind varieties, ultimate garden power and more. These bigger-than-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 day-neutral 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.

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

Find product & growing info at panamseed.com / BEGONIA
Big, bold begonias

Five new tuberous begonia series debut from PanAmerican Seed, providing a wide selection of colours, including unique bicourls, 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.

**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.

**TUBEROUS BEGONIA**

*Begonia x tuberosa*

Request your Product Information Guide for full culture details
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, more elegant and refined flower shape.
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 hybridizing.
• Each flower has a highly consistent double shape.

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

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**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.
**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™ 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-its-kind 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 well-suited 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.

**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.

**New 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 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 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 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.

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**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.
CELOSIA  
*Celosia cristata*

**Dracula**

*Height: 8 to 16 in./20 to 41 cm*  
*Spread: 8 to 12 in./20 to 30 cm*

*Seed supplied as: Coated*  
*Plug crop time: 3 to 4 weeks*  
*Transplant to finish: 6 to 8 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 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 well-branched 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.
### 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 Jr.™ Series

**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.

---

**Use a mix of coleus to create this Fuseables Combo!**

Fusables Chocolate Symphony, see page 226.
ANNUALS / PREMIUM SUN COLEUS

PREMIUM SUN COLEUS

Solenostemon 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-leaved plants show off a rich chocolate colour, with each mid-size leaf finely edged in mint green.
• Upright accent plants are well-suited 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**

*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**

*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 longer-lasting 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.
**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 purplish-black edge.
- Outstanding in packs or pots.

**Wizard Series**
- **Antiquity**
  - 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: 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.

**Coral Sunrise**
Can start out salmon-pink under cooler conditions and mature to lighter pink when warmer. Good in sun.

**ColorGrass**
See page 42.

**Coreopsis**
See Perennials, page 139.

**CorynePhorus**
See ColorGrass, pages 43.
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  

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.

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 long.
- Great for use in combinations of all kinds.
- This reblooming gem requires no deadheading and looks great even under hot conditions.
**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 in-ground 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** Well-balanced mix of dark flamed colours.

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**ORNAMENTAL CORN**
*Zea mays*

**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.

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Request your Product Information Guide for full culture details
INTERSPECIFIC DIANTHUS  
*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.

**Cherry**
ANNUALS / DASH

SINGLE DIANTHUS
Dianthus barbatus
Dash™ Series F1

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 quarts and gallons.
- Naturally compact and well-branched – 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.

DOUBLE DIANTHUS
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: Late Spring/early Summer, 9 to 10 weeks; late Summer/Winter, 11 to 12 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.
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 cool-season landscapes, gardens and patio planters.

SINGLE DIANTHUS
Dianthus 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 cool-season 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.

Find product & growing info at panamseed.com / DIANTHUS 37
ANNUALS / FLORAL LACE

DIANTHUS
Dianthus chinensis x barbatus

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.
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.

**DIGITALIS**

See Perennials, page 141.

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**ANNUALS / EMERALD FALLS**

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

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**DAHLIA**

Find product & growing info at panamseed.com / **DICHONDRA**

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**Silver Falls Dichondra**

- **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**

- **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 heat-tolerant, low-growing groundcover.

**DIGITALIS**

See Perennials, page 141.
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 super-holdable 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.
Sunny Side Up Mixture: Clear Orange, Yellow, White.
Tiger Mixture: Red Stripe and Rose Stripe.
ERYSIMUM

Erysimum species

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.

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.

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.

Glamour Improved Euphorbia

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

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.

FESTUCA

See ColorGrass, page 44.

FIBER OPTIC GRASS

See Isolepsis in ColorGrass, page 42.

FRAGARIA

See Strawberry

Find product & growing info at panamseed.com / EUPHORBIA 41
**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.

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**Create this sunny Plug & Play Combo with Sirocco anemanthele!**

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

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**Live Wire Isolepis**

<table>
<thead>
<tr>
<th>Variety/Exposure</th>
<th>Colour group</th>
<th>Height</th>
<th>Spread</th>
<th>USDA Zones</th>
<th>Containers</th>
<th>Plug crop time (weeks)</th>
<th>Transplant to finish (weeks)</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolepis Live Wire</td>
<td>Green</td>
<td>6-8 in./15-20 cm</td>
<td>18-20 in./46-51 cm</td>
<td>8-10</td>
<td>306 pack, 4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>5</td>
<td>6-7</td>
<td>Annual grasslike plant features a short mound of soft green leaves accented by flower spikes that look like “fiber optic” strands. Ideal for 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.</td>
</tr>
<tr>
<td>Koeleria Coolio</td>
<td>Green</td>
<td>6-8 in./15-20 cm</td>
<td>8 in./20 cm</td>
<td>6-8</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>6-7</td>
<td>Upright, blue-green grass is ideal for dry locations. Grows to 20 in./51 cm after the first season.</td>
</tr>
<tr>
<td>Carex Amazon Mist</td>
<td>Green</td>
<td>6-12 in./15-30 cm</td>
<td>14 in./36 cm</td>
<td>6-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>9-10</td>
<td>Variegated light/medium green grass has twisting tips and an arching habit.</td>
</tr>
<tr>
<td>Carex Bronco</td>
<td>Brown</td>
<td>6-12 in./15-30 cm</td>
<td>14 in./36 cm</td>
<td>6-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>8-9</td>
<td>Bronze-brown variety has an arching habit.</td>
</tr>
</tbody>
</table>

*3 plants per pot

All ColorGrass varieties are supplied as multi-seed pellets.
In addition to our ColorGrass Collection, PanAmerican Seed offers Juncus Fuseables Twisted Arrows and Fuseables Twisted Dart (page 226).

<table>
<thead>
<tr>
<th>Variety/Exposure</th>
<th>Colour group</th>
<th>Height</th>
<th>Spread</th>
<th>USDA Zones</th>
<th>Containers</th>
<th>Plug crop time (weeks)</th>
<th>Transplant to finish (weeks)</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOW HABIT (2 to 8 in./5 to 20 cm)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luzula Lucius L. nivea</td>
<td>Green</td>
<td>6-12 in./15-30 cm</td>
<td>18 in./46 cm</td>
<td>4-9</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>4-7</td>
<td>8-9</td>
<td>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.</td>
</tr>
<tr>
<td>Corynephorus Spiky Blue C. canescens (Clubawn Grass)</td>
<td>Green</td>
<td>6-12 in./15-30 cm</td>
<td>8 in./20 cm</td>
<td>5-9</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>6-7</td>
<td>Compact, spiky, blue-green tufts mature to reddish-green.</td>
</tr>
<tr>
<td><strong>MEDIUM HABIT (8 to 18 in./20 to 46 cm)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juncus Starhead J. ensifolius</td>
<td>Green</td>
<td>8-10 in./20-25 cm</td>
<td>8-10 in./20-25 cm</td>
<td>4-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>7-8</td>
<td>Compact variety displays green, broad-leaved foliage and long-lasting, dark green star inflorescences.</td>
</tr>
<tr>
<td>Anemanthele Sirocco A. lessoniana</td>
<td>Green/ Brown</td>
<td>12-14 in./30-36 cm</td>
<td>22-24 in./56-60 cm</td>
<td>7-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>5-6</td>
<td>6-8</td>
<td>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.</td>
</tr>
</tbody>
</table>
**ANNUALS / COLORGRASS**

ColorGrass ornamental grasses bring patios and landscapes to life.

Blue Arrows Juncus with Glitz Euphorbia and Red Geranium

<table>
<thead>
<tr>
<th>Variety/Exposure</th>
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<th>Plug crop time (weeks)</th>
<th>Transplant to finish (weeks)</th>
<th>Features</th>
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<tr>
<td><strong>MEDIUM HABIT (8 to 18 in./20 to 46 cm)</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Festuca Festina</td>
<td>Green</td>
<td>12-18 in./30-46 cm</td>
<td>10-15 in./25-38 cm</td>
<td>4-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>6-7</td>
<td>Very cold-hardy variety produces dense, compact tufts of blue-green, with small, upright brown plumes from Summer to Autumn.</td>
</tr>
<tr>
<td>Juncus Blue Dart</td>
<td>Green</td>
<td>14-16 in./36-41 cm</td>
<td>10-12 in./25-30 cm</td>
<td>4-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>7-8</td>
<td>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.</td>
</tr>
<tr>
<td>Juncus Twister</td>
<td>Green</td>
<td>12-14 in./30-36 cm</td>
<td>12-14 in./30-36 cm</td>
<td>5-9</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>7-8</td>
<td>6-7</td>
<td>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.</td>
</tr>
<tr>
<td><strong>TALL HABIT (18 in./46 cm and taller)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stipa Pony Tails</td>
<td>Green</td>
<td>16-24 in./41-61 cm</td>
<td>24 in./61 cm</td>
<td>6-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>5-6</td>
<td>7-10</td>
<td>Upright grass has fine, needlelike green foliage, with silky green flowers in July that mature to golden blonde.</td>
</tr>
</tbody>
</table>

*3 plants per pot
<table>
<thead>
<tr>
<th>Variety/Exposure</th>
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<tr>
<td><strong>TALL HABIT (18 in./46 cm and taller)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex Phoenix Green</td>
<td>Green</td>
<td>20-24 in./51-61 cm</td>
<td>16-20 in./41-51 cm</td>
<td>6-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>5-7</td>
<td>6-7</td>
<td>Sturdy, upright, narrow-leafed sedge has bright green foliage. Good heat tolerance. Easy-care for accent in landscapes, planters.</td>
</tr>
<tr>
<td>Carex Red Rooster</td>
<td>Red</td>
<td>20-30 in./51-76 cm</td>
<td>12 in./30 cm</td>
<td>6-9</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>8-9</td>
<td>Red-bronze grass has curled tips and upright habit.</td>
</tr>
<tr>
<td>Juncus Blue Arrows</td>
<td>Green</td>
<td>36 in./91 cm</td>
<td>12 in./30 cm</td>
<td>5-9</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>6-7</td>
<td>6-7</td>
<td>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.</td>
</tr>
<tr>
<td>Juncus Javelin</td>
<td>Green</td>
<td>48 in./1.2 m</td>
<td>18-20 in./46-51 cm</td>
<td>8-10</td>
<td>4 in./10 cm, 6 in./15 cm*, Gallon</td>
<td>5-6</td>
<td>5-6</td>
<td>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.</td>
</tr>
</tbody>
</table>
Summer Showers White Blush Ivy Geranium

Summer Showers Fuchsia Ivy Geranium

Summer Showers Burgundy Ivy Geranium

Summer Showers Mixture Ivy Geranium

QIS Orange Gomphrena

QIS Red Gomphrena

QIS Purple Gomphrena

QIS Carmine Gomphrena

Fireworks Gomphrena

Sunshine Mixture Gazania

FUSEABLES
See Plug & Play Combos

GALLARDIA
See Perennials, page 145.

GAURA
See Perennials, page 146.

TETRAPLOID GAZANIA
Gazania rigens

Sunshine Mixture
Height: 12 in./30 cm
Spread: 6 to 8 in./15 to 20 cm
Seed supplied as: Raw
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.

IVY GERANIUM
Pelargonium x hortorum

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.

GERBERA
See Potted Plants, page 169.

GOMPHRENA
Gomphrena haageana

QIS Series
Height: 24 to 26 in./61 to 66 cm
Spread: 8 to 10 in./20 to 25 cm
Seed supplied as: Raw
Plug crop time: 5 to 6 weeks
Transplant to finish: 10 to 12 weeks
• Versatile series works well for landscape and garden use.
• Vivid colour range makes these a summer-long standout.
• Also as a first-class professional cut flower for greenhouse and outdoor production; suited to fresh and dried use.

Also available: Mixture

FLEURONSET QUALITY MARK
Fleursolal Select Quality Mark

GOMPHRENA
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
HELENIA
Helium 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

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.

HELICHERA
See Perennials, page 146.

HIBISCUS
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.
**ANNUALS / BEACON**

**BEACON IMPATIENS**

**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 well-known, 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 salmon-orange flower on mid-vigour, mounded plants with bright 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.

**High resistance to Impatiens downy mildew!**

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.

**NEW**

Beacon Orange

**Beacon Coral (L) outperforms a susceptible competing variety (R), at Venhuizen field trials in 2018.**
NEW Beacon Series has high resistance to Impatiens downy mildew!

Violet Shades US PAF
Bright Red US PAF
White US PAF
Coral US PAF
Salmon US PAF
Violet Shades US PAF
Orange US PAF
Select Mixture US PAF
Red White Mixture US PAF
**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.

**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.

**Request your Product Information Guide for full culture details**
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

**Colors**
- XP White
- XP Pink
- XP Coral
- XP Salmon Splash
- XP Red
- XP Salmon
- XP Rose
- XP Violet Starburst
- XP Blue Pearl
- XP Lilac
- XP Red Starburst
- XP Punch
- XP Scarlet
- XP Violet
- Bright Orange
- Lipstick
- Ruby

**Mixtures**
- Cha Cha Mixture
- Seaside Mixture
- Paradise Mixture
- 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 top-selling colours.
- Reduced apical dominance, decreased internode length and good soil coverage produce easy-to-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.
**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.

---

**Dazzler Baby Shower Mixture**  
**Grower Select Mixture**  
**Merlot Mixture**  
**Moody Blues Mixture**  
**Tutti Frutti Mixture**  
**Voodoo Too Mixture**  
**Passionfruit Mixture**

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**White**  
**Salmon Splash**  
**Salmon**  
**Orange**  
**Coral**  

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**Pink**  
**Blue Pearl**  
**Lilac Splash**  
**Violet**  
**Deep Pink**

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**Rose**  
**Scarlet**  
**Red**  
**Cranberry**  
**Punch**
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, high-quality 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 all-season colour.
• Foliage ranges from green to bronze-green.

Mystic Mixture: Lavender, Violet, White.
Salsa Mixture: Orange Bronze Leaf, Red, White.

Request your Product Information Guide for full culture details
Iresine

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.

Isotoma (Laurentia)

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

- 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.

Linaria

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.
ANNUALS / FLORIDA

BEDDING LISIANTHUS
Eustoma grandiflorum

Florida Series F1
Height: 8 to 10 in./20 to 25 cm
Spread: 6 to 8 in./15 to 20 cm
Seed supplied as: Pelleted
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 potted plant programs.
• Resists rosetting in both plug stage and after transplanting.
• Single-plant in 4.5-in./12-cm or multi-plant in larger container.

CUT FLOWER LISIANTHUS
ABC Series, page 186.
Flare Series, page 185.

POTTED PLANT LISIANTHUS
Sapphire Series, page 174.

LOBELIA
Lobelia 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-leaved plants are covered with white-eyed, sapphire blue flowers.
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
Regatta Lilac Splash
(Lat. 20050188)

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
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.
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.
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.

Vanilla
- 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 large mixed containers.
Create colourful Plug & Play Combos like this with Bonanza French marigolds!

**Bonanza™ Series**

**Tagetes patula**

**DWARF CRESTED FRENCH MARIGOLD**

**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.

**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.

**Plug & Play Combo Cantina Heat, see page 233.**

**Mixture**

**Flame**

**Gold**

**Harmony**

**FRENCH MARIGOLD**

**Gold Flame**

**Yellow**

**Deep Orange** Fleuroselect Novelty

**Bolero** US PVPAF

**Bee**
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.

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  
**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.

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:** 3 to 4 weeks

- With its yellow centre and red-tipped petals, this novelty colour will look great in patio containers and gardens alike.  
- This standalone variety in the French marigold assortment calls out its 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.

NEW Flamenco

**Height:** 10 to 12 in./25 to 30 cm  
**Spread:** 6 to 8 in./15 to 20 cm  
**Flower size:** 2.25 in./6 cm  
**Seed supplied as:** Coated, De-tailed  
**Plug crop time:** 3 to 4 weeks  
**Transplant to finish:** 3 to 4 weeks

- A good choice for commercial landscapes, featuring round, fully double, 3-in./8-cm flowers that look like small African marigolds.  
- Recommended as Summer pot annuals.
HEAT-TOLERANT EXTRA-DWARF CRESTED FRENCH MARIGOLD

Hot Pak™ Series

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, perfectly genetically matched.
- Stays compact and keeps on flowering without stretching or falling over.
- Produces 1.75 to 2-in./4.5 to 5-cm blooms.
- Ideal for pack programs and landscapes.

Orange US 9,326,467
Harmony US 9,326,464
Flame US 9,326,468

Hot Pak Mixture

Gold US 9,320,212
Spry US 9,326,466
Yellow US 9,326,465

Find product & growing info at panamseed.com / FRENCH MARIGOLD 63
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 colours.
- 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.

Request your Product Information Guide for full culture details
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.

**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.

**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.

**KIRIGAMI**

**ORNAMENTAL OREGANO**

**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**

**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 eye-catching, 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.
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.

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.

NOTE: Jade Princess requires warmer temperatures (above 60°F/16°C) than other millets to perform well.

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 predominantly 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 Potted Plants, page 162.
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-to-garden performance.
• Well-suited to mechanized production and high-density programs.
• Plants branch without pinching, all colours flower within a 7 to 10-day 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.
ANNUALS / MATRIX

PANSY
Viola x wittrockiana
EXTRA-LARGE FLOWERED PANSY

Matrix® Series F1

- **Actual size:** 3.5 in./9 cm

**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 large-flowered 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.

**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.
ANNUALS / MATRIX

Find product & growing info at panamseed.com / PANSY 69
Request your Product Information Guide for full culture details.
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.
**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 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 / PROMISE

LARGE-FLOWERED PANSY continued

**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**.

Request your Product Information Guide for full culture details
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.  

**NOTE:** 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).
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 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.

Request your Product Information Guide for full culture details.
**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.
**PENTAS**
*Pentas lanceolata*

**Lucky Star® Series F1**

- **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, 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.

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**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.
Use Lucky Star pentas to create star-studded Plug & Play Combos like this!

Plug & Play Combo Star Bright, see page 234.

Mixture

NEW

White Improved

NEW

Lipstick

Violet

Deep Pink

Pink

Lavender

Dark Red

ANNUALS / LUCKY STAR
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.
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, full-bodied 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.  
• Extremely 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.
PETUNIA

Petunia 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.

Timing is everything

Getting your crop sown, grown and off to market right on schedule is every grower’s fondest wish. Dreams delivers a well-matched Spring bloom time window across all colours. No need to pick and choose from several series...now that’s a dream come true!

Fuseables Lime Coral, see page 224.
ANNUALS / DREAMS

Find product & growing info at panamseed.com / PETUNIA 83
The designer Debonair and Sophistica collections combine beautiful flowers in special one-of-a-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.

**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 silver-white 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.
Use Dreams and Daddy petunias to add striking hues to combos like this!

**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.

Find product & growing info at panamseed.com / PETUNIA
ANNUALS / EZ RIDER

Compact Growing Petunia

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
- **Violet** Times like Blue in cold production conditions and like Pink in Spring natural daylength.
- **Also available:** 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.
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

Find product & growing info at panamseed.com / PETUNIA
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 high-heat areas.
• 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.
FLORIBUNDA PETUNIA

**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.
ANNUALS / MADNESS

Find product & growing info at panamseed.com / PETUNIA
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.
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 bicols.

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.
ANNUALS / DOUBLE MADNESS

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.

Red And White

Satin Pink

Salmon

Rose

Burgundy

Lavender

Blue

Mixture

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.

Red And White

Satin Pink

Salmon

Rose

Burgundy

Lavender

Blue

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

**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.

*Plug & Play Combo Lemon Dream, see page 230.*
**Promise Series**

**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.

- 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.

**Promise Peach** Fleuroselect Quality Mark, Fleuroselect Novelty

**Promise White** Fleuroselect Quality Mark

**Promise Mixture**

- **Promise Rose** Fleuroselect Quality Mark
  - 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.

**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.

**Ethnie Light Blue**

**Ethnie Salmon**

**Ethnie White**

**Ethnie Purple Violet**

**Ethnie Scarlet**

**Ethnie Dark Rose**

**Ethnie Mixture**

PHLOX continued

Request your Product Information Guide for full culture details.
**Grammy Pink & White F1**

*Height:* 8 to 10 in./20 to 25 cm  
*Spread:* 8 to 10 in./20 to 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  
- **Silver Crest Plectranthus**
- 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 well-branched, trailing plants.

**PRIMULA**

*Primula acaulis*

**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:* 8 to 9 weeks  
- Robust, vigorous and stress-tolerant 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.

**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  
- 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.
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 bicourler 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.
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.

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**Primlet Mixture**

**Scarlet Red Shades**

**Golden Shades**

**Pink Shades**

**Purple**

**Pink With Edge**

**Rose**

**Sunrise**

**White**

**Lemon Shades**

**Yellow**
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.

Request your Product Information Guide for full culture details
TRAILING PORTULACA
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 intense Deep Red and unique Rosita.
- Delivers brilliant colours and fantastic spread in the garden.
**ANNUALS / TOUCAN**

*Portulaca 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.

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*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.

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*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.
The name says it all!

Big Blue salvia is exactly that – a vigorous flowering annual in a sales-inspiring 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**

*S. longispicata x farinacea*

**Big Blue**

- **Height:** 24 to 36 in./61 to 91 cm
- **Spread:** 18 to 20 in./46 to 51 cm
- **Seed supplied as:** Raw
- **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-water conditions.
- Low-maintenance plant does not need deadheading.
- Hummingbirds, bees, butterflies and more flock to Big Blue in the garden.
- At its best in full sun, but will tolerate dappled shade or partial sun.
Lighthouse Series

Salvia splendens

- **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 long-lasting colour.
- Heat tolerant and ideal for low-maintenance 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.

**SALVIA**

- **Flare**
- **Lighthouse**
- **Lighthouse Red**
- **Lighthouse Purple and Red**
- **Lighthouse Purple**
- **Red Hot Sally II**

Request your Product Information Guide for full culture details.
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™ Series
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.

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.
ANNUALS / SNAPSHOT

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
**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.  

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Find product & growing info at panamseed.com / SNAPDRAGON 109
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.

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, non-selectable 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 outdoor performers.
- Prefers cool growing conditions; no vernalisation needed.

**CUT FLOWER STOCK**

*(MATTHIOLA)*

- *Aida Series*, page 188.
- *Column Stock*, page 189.
- *Figaro Series*, page 188.
- *Mathilda Series*, page 188.
- *Opera Series*, page 188.
- *SUNFLOWER*
  See *Potted Plants*, page 175 and *Cut Flowers*, page 197.
**TALINUM**
*Malvastrum ciliatum*

**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**
*Matricaria*

**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.
TORENIAGreen Thumb
Torenia fournieri

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.

THYMOPHYLLAGreen Thumb
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.
VERBENA

Verbenaxhybrida

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

Santos Purple, page 157.

VERONICA

See Perennials, page 157.

Use Quartz XP verbena in dazzling Plug & Play Combos like this!

Plug & Play Combo Razzle Dazzle, see page 231.
Titan (left) surpasses even Pacifica XP in bloom size.

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 top-selling 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
Catharanthus roseus
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.
Add Valiant vinca to create bold Plug & Play Combos like this!

Valiant™ Series F1

- **F1 AERIAL PHYTOPHTHORA-RESISTANT UPRIGHT VINCA**

**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.

*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.

Plug & Play Combo Cherry Jam, see page 236.
ANNUALS / TATTOO

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.
- 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.

**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!

Try Tattoo vinca for an instant hit in Plug & Play Combos like this!

Plug & Play Combo Ink’d, see page 235.

Find product & growing info at panamseed.com / VINCA 117
ANNUALS / PACIFICA XP

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.

All-America Selections National Winner, Fleuroselect Quality Mark, Fleuroselect Novelty. US PVP 200700272
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).
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 Strawberry

XP Peach

XP Lipstick Mixture

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

• 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 Strawberry

XP Peach

XP Lipstick Mixture

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

• 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 Strawberry

XP Peach

XP Lipstick Mixture
**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.

**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!

Request your Product Information Guide for full culture details

Send the best-looking 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.

Actual size: 1.5 in./4 cm
Sorbet® XP 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 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** Lavender-pink 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 Lemon Parfait Mixture** XP Orange, XP Yellow, XP Yellow Jump Up.

**XP Ocean Breeze Mixture** XP Marine, XP Delft Blue, XP White.

**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.

Find product & growing info at panamseed.com / VIOLA 123
Request your Product Information Guide for full culture details.

Viola 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 Orange Jump Up
- XP White Jump Up
- XP Lemon Jump Up
- XP Yellow Jump Up
- XP Yellow Burgundy Jump Up
- XP YTT
- XP Marina
- XP Delft Blue
- NEW XP Neptune
- XP Denim Jump Up
- XP Morpho Autumn/Warm temperature bloom colour
- XP Morpho Spring/Cool temperature bloom colour
- XP Raspberry
- XP Purple Face

Fleuroselect Gold Medal
ANNUALS / SORBET XP

XP Raspberry Sundae

XP Blueberry Sundae Mixture

XP Ocean Breeze Mixture

XP Mixture

XP Spring Select Mixture

XP Autumn Select Mixture

XP Citrus Mixture

XP Blotch Mixture

XP Lemon Parfait Mixture

XP Harvest Mixture

XP Jump Up Mixture

XP Blackberry Sundae Mixture

Sorbet XP Citrus Mixture

Find product & growing info at panamseed.com / VIOLA 125
ANNUALS / SORBET

Sorbet Rose Wing

Lemon Chiffon  Lilac Ice  Icy Blue  Orchid Rose Beacon  Violet Beacon

Carmine Rose  Yellow Blue Jump Up  Honeybee  Antique Shades  Fire

Ruby Gold  Midnight Glow  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 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.
**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; stronger 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.
ANNUALS / ZAHARA

Zahara Starlight Rose

Use Zahara zinnias to add a cheerful note to Plug & Play Combos like this!

Plug & Play Combo Yellow Tambourine, see page 236.

Zahara® Series

Zinnia Marylandica

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.

Sunburst Fleuroselect Gold Medal, Fleuroselect Novelty

Raspberry Lemonade Mixture

Bonfire Mixture
ANNUALS / ZAHARA XL

Zahara White US PVP 201400297

Zahara Starlight Rose All-America Selections National Winner, Fleuroselect Novelty

Zahara Yellow US PVP 201500214

Zahara Sunburst Fleuroselect Gold Medal, Fleuroselect Novelty

Zahara Fire US PVP 201000090

Zahara Raspberry US PVP 201500215

Zahara Red US PVP 201600030

Zahara Cherry US PVP 201600029

Zahara XL Fire

Zahara XL White US PVP 201200485

Zahara XL Yellow US PVP 201200483

Zahara XL Pink US PVP 201200482

Zahara XL Fire

Zahara® XL Series

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 landscape or impulse buys at retail, including Yellow and Pink.
• Suitable for pot-tight production of 4-in./10-cm pots up to gallon containers.

Find product & growing info at panamseed.com / ZINNIA 129
**ANNUALS / DOUBLE ZAHARA**

**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, disease-resistant 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.
Salmon US PVP A

Bright Orange Fleuroselect Novelty

Fire All-America Selections National Winner, Fleuroselect Gold Medal, Fleuroselect Novelty US PVP 201600032

Cherry All-America Selections National Winner, Fleuroselect Novelty US PVP 201600027
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 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).
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.
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.

Kieft Seed™
AQUILEGIA (COLUMBINE)  
*Aquilegia vulgaris*

**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
- **Plug crop time:** 7 to 8 weeks
- **Transplant to finish:** 26 to 40 weeks
- Useful in both borders and landscapes.
- Spurless double flowers face upwards and resemble Clematis flowers.
- 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.
**AQUILEGIA (COLUMBINE)**

*Aquligia 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. Early-flowering 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**

**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.

Also available: **Mixture**
**PERENNIALS / BELLISIMA**

**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**

**Armeria pseudarmeria**

**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
- **Plug crop time**: 5 to 6 weeks
- **Transplant to finish**: 12 to 15 weeks

- High-quality, programmable perennial fits right into your early-season program.
- Compact and uniform plants produce cushion-shaped, grassy foliage and long, strong stems topped with globe-shaped blooms.

**BELLIS**

**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.
**Double the Sun**

*Coreopsis grandiflora*

**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.

**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, semi-double flowers constantly all Summer.  
- Can also be marketed as an annual in premium packs.

**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  
**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.

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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.

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Coreopsis (*C. grandiflora*)

- **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.
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.

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.

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 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: 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/-40 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.
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!

DIGITALIS
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.
- 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.
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.

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!
More colours! More flowers! More sales!
Award-winning ‘Cheyenne Spirit’ gives you the more economical way to bring these high-demand 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 prairie-to-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.

Create dramatic Plug & Play Combos like this with ‘Cheyenne Spirit’ echinacea!

‘Cheyenne Spirit’

Plug & Play XXL Combo Paris in Springtime, see page 239.
PERENNIALS / POWWOW

ECHINACEA

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!

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, non-fading colour all season long. Create more colourful landscapes and mixed containers with Mesa.

**Bright Bicolor**

**Peach**

**Red**

**Yellow** All-America Selections National Winner, Fleuroselect Gold Medal

GAILLARDIA
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, well-branched 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.

**NEW Plug & Play XXL Combo Sun Sea and Rosé, see page 238.**

**Mesa Bright Bicolor adds colour and interest to perennial displays.**
GAURA  
Gaura lindheimeri

Sparkle White

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  
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.

HEUCHERA  
Heuchera micrantha

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: 26 to 40 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.

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

HIBISCUS
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, well-branched 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
Iberis 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 Rose Hibiscus
Luna White Hibiscus
Luna Red Hibiscus
Luna Mixture Hibiscus

Whiteout Iberis Fleuroselect Novelty
**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.

**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 (24 to 36 weeks overwintered)

- Produces the deepest purple-blue 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.

Try Ellagance lavandula for a colour explosion in Plug & Play Combos like this!

**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 cool conditions.
Use Blue Spear lavandula to create unique Plug & Play Combos like this!

**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.

NEW Plug & Play XXL Combo Date Knight, see page 239.
**Bandera Series**

**LAVANDULA**

*Lavandula stoechas*

**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 the plant.  
• Short 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.

*Bandera Purple, Pink, NEW Deep Purple and NEW Deep Rose Lavandula*
**Spanish Eyes Lavandula**  
*Lavandula multifida*

**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.

---

**LEUCANTHEMUM**  
*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)

**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 for 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.

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.

---

**Create striking Plug & Play Combos like this with NEW Madonna leucanthemum!**

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

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.
**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

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).

**NEPETA**
*Nepeta nervosa*

**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

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.

**PAPÄVER**
Papaver nudicaule

**Champagne Bubbles Series F1**
- Height: 15 in./38 cm
- Spread: 6 in./15 cm
- USDA Hardiness Zones: 4a to 8b

A First-Year-Flowering Perennial.

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, cool-night conditions.
- Good Winter item in Florida, California and similar climates.

Also available: Citrus Mixture Orange, Yellow, White.

**ORNAMENTAL OREGANO**
*Kirigami*, page 65.
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  •  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  •  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

PERENNIALS

PEROVSKIA

Blue Steel

Perovskia atriplicifolia

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 Summer-blooming 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.

It’s as tough as… STEEL!

A perennial first: Now you can grow high-quality, 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.

Blue Steel Perovskia Fleuroselect Novelty

SALVIA

Patio Series

Salvia patens

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.

Blue Steel Perovskia Fleuroselect Novelty
SALVIA

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 well-branched plants feature strong-coloured 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 blue colour, NEW Salvatore Blue 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 well-branched plants.
• Ideal for annual and overwintering production.
• With a critical daylength of 10 hours, it is possible to finish for early Spring, which previously was only possible with vegetative varieties.

Opening the door to seed salvia

With the largest spikes and the deepest blue colour, NEW Salvatore Blue is an excellent alternative to vegetative salvia. Plus, it offers a critical daylength of 10 hours for finishing in early Spring, which previously was only possible with vegetative varieties.

NEW

Salvatore Blue
Fleuroselect Novelty

NEW

Salvatore Blue
Fleuroselect Novelty

PanAmerican Seed
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, short-stemmed 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, short-stemmed, 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, well-branched 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, star-shaped, upward-facing pure white flowers emerge.  
- Excellent for container production, with elegant finished quality.

VERBASCUM
Verbascum x hybridum

**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  
**Plug crop time:** 4 to 5 weeks  
**Transplant to finish:** 12 to 13 weeks

- Florets are arranged in pairs, doubling the life of the flower spike.  
- Plants bloom in Spring, go dormant under high temperatures and rebloom in Autumn.

VERBENA
Verbena rigida

**Buenos Aires**

**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°C minimum temperatures)

**A First-Year-Flowering Perennial.**

**Seed supplied as:** Primed  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 14 to 16 weeks

- 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 border.

**Santos Purple**

**Height:** 12 in./30 cm  
**Spread:** 48 in./122 cm

**USDA Hardiness Zones:** tender perennial; 7a to 11 (0°F/-18°C minimum temperatures)

**A First-Year-Flowering Perennial.**

**Seed supplied as:** Primed  
**Plug crop time:** 6 to 7 weeks  
**Transplant to finish:** 11 to 13 weeks

- Kieft Seed offers the first high-yield primed seed form of Santos Purple – count on reliable availability, high germination and excellent plug yield for this popular variety.  
- One of the best tough and long-lasting landscape perennials available – very heat and drought tolerant, plus exceptional performance in cool climates.  
- Compact and upright, well-branched plants bloom late Spring through Summer.  
- High powdery mildew resistance.  
- Good in baskets and combo planters, too.

**ANNUAL VERBENA**  
See page 113.

**VERONICA**  
Veronica spicata

**Blue Bouquet**

**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:** 6 to 7 weeks  
**Transplant to finish:** 9 to 10 weeks

- High powdery mildew resistance.  
- Good in baskets and combo planters, too.
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.
POTTED PLANTS

SPARKING NEW INTEREST IN PLANTS

These “Gateway to Gardening” plant varieties are designed to attract today’s young shopper and soon-to-be 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.
CONCERTINA

CELOSIA

**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.

**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.

<table>
<thead>
<tr>
<th>Series</th>
<th>No. of Varieties</th>
<th>Recommend pot size</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Concertina Series</td>
<td>5 &amp; 1 mix</td>
<td>4-4.5 in./10-11 cm, Quart</td>
</tr>
<tr>
<td>Kosmo Series</td>
<td>5 &amp; 1 mix</td>
<td>4-4.5 in./10-11 cm, Quart</td>
</tr>
</tbody>
</table>
CAMPANULA \( \text{Campanula medium} \)

**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.

<table>
<thead>
<tr>
<th>Series</th>
<th>No. of Varieties</th>
<th>Recommend pot size</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Campanella</td>
<td>3</td>
<td>4-4.5 in./10-11 cm, Quart</td>
</tr>
</tbody>
</table>

Campanella Lavender, Pink & Blue
POTTED PLANTS / CAPSICUM

**Capsicum (Indoor/Outdoor Pepper)**

*Capsicum annuum*

**Seed supplied as:** Raw

- Unique assortment is bred for shorter production times.
- Compact growth means no PGRs are needed.
- Good retail shelf life.
- Excellent indoor/outdoor performance.

**Edible Potted Peppers**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES PERIOD:</strong> FEBRUARY TO SEPTEMBER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Adobo</td>
<td>Red</td>
<td>3-4</td>
<td>14-16</td>
<td>5-7.5 in./13-19 cm</td>
<td>1 x 4.5 in./3 x 12 cm</td>
<td>12-14 in./30-36 cm</td>
</tr>
<tr>
<td>Cosmo</td>
<td>Purple</td>
<td>3-4</td>
<td>16-18</td>
<td>5-7.5 in./13-19 cm</td>
<td>0.75 x 2 in./2 x 5 cm</td>
<td>10-12 in./25-30 cm</td>
</tr>
<tr>
<td>Hot Burrito</td>
<td>Red</td>
<td>3-4</td>
<td>14-16</td>
<td>4.5-7.5 in./12-19 cm</td>
<td>0.75 x 4 in./2 x 10 cm</td>
<td>10-12 in./25-30 cm</td>
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<tr>
<td>Hot Fajita</td>
<td>Red</td>
<td>3-4</td>
<td>14-16</td>
<td>4.5-8 in./12-20 cm</td>
<td>0.5 x 4 in./1.5 x 10 cm</td>
<td>10-12 in./25-30 cm</td>
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<tr>
<td>Hot Joker</td>
<td>Red</td>
<td>3-4</td>
<td>14-16</td>
<td>4.5-6 in./12-15 cm</td>
<td>0.5 x 4 in./1.5 x 10 cm</td>
<td>12-14 in./30-36 cm</td>
</tr>
<tr>
<td>Hot Lemon</td>
<td>Yellow</td>
<td>3-4</td>
<td>15-17</td>
<td>5-8 in./13-20 cm</td>
<td>0.5 x 1 in./1.5 x 3 cm</td>
<td>12-14 in./30-36 cm</td>
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<tr>
<td>Hot Tomato</td>
<td>Red</td>
<td>3-4</td>
<td>15-17</td>
<td>5-8 in./13-20 cm</td>
<td>1.5 x 1.5 in./4 x 4 cm</td>
<td>10-12 in./25-30 cm</td>
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<tr>
<td>Piñata</td>
<td>Red</td>
<td>3-4</td>
<td>14-16</td>
<td>4.5-6 in./12-15 cm</td>
<td>0.3 x 2.25 in./1 x 6 cm</td>
<td>8-10 in./20-25 cm</td>
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Request your Product Information Guide for full culture details.
<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES PERIOD: FEBRUARY TO SEPTEMBER</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamale</td>
<td>Red</td>
<td>3-4</td>
<td>14-16</td>
<td>4.5-6 in./12-15 cm</td>
<td>0.75 x 2 in./2 x 5 cm</td>
<td>6-8 in./15-20 cm</td>
</tr>
<tr>
<td>Taquito</td>
<td>Red</td>
<td>3-4</td>
<td>15-17</td>
<td>3.5-4.25 in./9-11 cm</td>
<td>0.3 x 1.5 in./1 x 4 cm</td>
<td>4.5-6 in./12-15 cm</td>
</tr>
<tr>
<td>Yellow Tomato</td>
<td>Yellow</td>
<td>3-4</td>
<td>15-17</td>
<td>5-8 in./13-20 cm</td>
<td>1.5 x 1.5 in./4 x 4 cm</td>
<td>12-14 in./30-36 cm</td>
</tr>
<tr>
<td><strong>SALES PERIOD: MAY TO SEPTEMBER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh Bites Series</td>
<td>Orange, Red, Yellow</td>
<td>3-4</td>
<td>15-17</td>
<td>5-6.5 in./13-17 cm</td>
<td>1.25 x 2.25 in./3.5 x 6 cm</td>
<td>12-14 in./30-36 cm</td>
</tr>
</tbody>
</table>
### Ornamental Peppers

<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale time (weeks)</th>
<th>Pot size</th>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES PERIOD: JULY TO OCTOBER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acapulco™ Series</strong></td>
<td>Multicolor, Orange, Purple, Red, Yellow</td>
<td>3-4</td>
<td>12-13</td>
<td>4.25 x 5 in./11-13 cm 3 ppp: 6.5-8 in./17-20 cm</td>
<td>0.5 x 1.5 in./1.5 x 4 cm</td>
<td>6 in./15 cm</td>
</tr>
<tr>
<td><strong>Blaze</strong></td>
<td>Yellow to red</td>
<td>4-5</td>
<td>7-13 for Autumn finish</td>
<td>Quart</td>
<td>0.75 x 2.25 in./2 x 6 cm</td>
<td>4-8 in./10-20 cm</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chilly Chili F1</strong></td>
<td>Yellow-green to orange to dark red</td>
<td>4-5</td>
<td>7-13 for Autumn finish</td>
<td>4-6 in./10-15 cm</td>
<td>2-2.5 in./5-6 cm</td>
<td>9-10 in./23-25 cm</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Coba</strong></td>
<td>Black to red</td>
<td>3-4</td>
<td>12-13</td>
<td>4.25 x 5 in./11-13 cm</td>
<td>0.75 x 1 in./2 x 3 cm</td>
<td>6 in./15 cm</td>
</tr>
</tbody>
</table>
Ornamental Peppers

<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES PERIOD: JULY TO OCTOBER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cupala</td>
<td>Lime to red</td>
<td>3-4</td>
<td>11-12</td>
<td>4.5 in./10-12 cm</td>
<td>0.3 x 2.75 in./1 x 7 cm</td>
<td>4.5 in./12 cm</td>
</tr>
<tr>
<td>Harlequin</td>
<td>Multicolour</td>
<td>3-4</td>
<td>13-14</td>
<td>4.5-6 in./12-15 cm</td>
<td>0.5 x 0.75 in./1.5 x 2.5 cm</td>
<td>8 in./20 cm</td>
</tr>
<tr>
<td><strong>Hot Pops Series</strong></td>
<td>Purple, Yellow</td>
<td>4-5</td>
<td>7-13 for Autumn finish</td>
<td>Quart</td>
<td>0.4/1 cm round</td>
<td>4-5 in./10-13 cm</td>
</tr>
<tr>
<td>Joker</td>
<td>Red</td>
<td>3-4</td>
<td>11-12</td>
<td>2.75-4.5 in./7-12 cm</td>
<td>0.3 x 1.5 in./1 x 4 cm</td>
<td>4.5 in./12 cm</td>
</tr>
<tr>
<td>Masquerade</td>
<td>Purple and orange to red</td>
<td>4-5</td>
<td>7-12 for Autumn finish</td>
<td>Quart, 4-8 in./10-20 cm</td>
<td>0.3 x 1.5 in./1 x 4 cm</td>
<td>10-12 in./25-30 cm</td>
</tr>
</tbody>
</table>

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.

Tapered fruit in multicolours – appear purple and orange, then mature to red. Good for use in containers and gardens.

NOTE: Fruit is hot.
<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale time (weeks)</th>
<th>Pot size</th>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wicked</strong></td>
<td>Purple to red</td>
<td>4-5</td>
<td>7-13 for Autumn finish</td>
<td>Quart</td>
<td>1 x 2.75 in./3 x 7 cm</td>
<td>6-8 in./15-20 cm</td>
</tr>
<tr>
<td><strong>Paracho</strong></td>
<td>Black to bronze</td>
<td>3-4</td>
<td>12-13</td>
<td>4-5 in./10-13 cm</td>
<td>0.3 x 1.5 in./1 x 4 cm</td>
<td>4.5 in./12 cm</td>
</tr>
<tr>
<td><strong>Red Missile</strong></td>
<td>Cream to orange to bright red</td>
<td>4-5</td>
<td>7-11 for Autumn finish</td>
<td>Quart, 4-8 in./10-20 cm</td>
<td>2 in./5 cm</td>
<td>10-12 in./25-30 cm</td>
</tr>
<tr>
<td><strong>New Salsa</strong></td>
<td>Purple Yellow</td>
<td>4-5</td>
<td>12-13</td>
<td>2.25-4.25 in./6-11 cm</td>
<td>0.3 x 1 in./1 x 3 cm</td>
<td>4 in./10 cm</td>
</tr>
<tr>
<td><strong>Salsa XP</strong></td>
<td>Deep Orange, Purple, Red, Yellow, Yellow-Red, Mixture</td>
<td>3-4</td>
<td>12-13</td>
<td>2.25-4.25 in./6-11 cm</td>
<td>0.3 x 1 in./1 x 3 cm</td>
<td>4 in./10 cm</td>
</tr>
</tbody>
</table>

**Ornamental Peppers**

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.

Compact plants are good for containers and gardens.

**NOTE:** Fruit is hot.

Request your Product Information Guide for full culture details.
## Ornamental Peppers

<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
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<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALES PERIOD: JULY TO OCTOBER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samba</td>
<td>Dark Orange, Orange, Red, Yellow, Mixture</td>
<td>3-4</td>
<td>14-15</td>
<td>4.5 in./10-13 cm</td>
<td>0.75 x 1.5 in./2.5 x 4 cm</td>
<td>6 in./15 cm</td>
</tr>
<tr>
<td>Samba XL</td>
<td>Dark Orange, Orange, Yellow</td>
<td>3-4</td>
<td>14-15</td>
<td>4.5 in./10-13 cm</td>
<td>1 x 2 in./3 x 5 cm</td>
<td>4.5-6 in./12-15 cm</td>
</tr>
<tr>
<td>Santos</td>
<td>Flare, Orange, Yellow</td>
<td>3-4</td>
<td>12-13</td>
<td>4.45 in./10-12 cm</td>
<td>0.3 x 2 in./1 x 5 cm</td>
<td>6 in./15 cm</td>
</tr>
<tr>
<td>Medusa</td>
<td>Ivory to yellow to orange to bright red</td>
<td>4-5</td>
<td>7-13 for Autumn finish</td>
<td>4 in./10 cm</td>
<td>2.25 in./5-6 cm</td>
<td>6-8 in./15-20 cm</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Fruit colour</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zamora</td>
<td>Orange, Red, Yellow</td>
<td>3-4</td>
<td>12-13</td>
<td>4.45 in./10-12 cm</td>
<td>0.5 x 1.5 in./1.5 x 4 cm</td>
<td>6 in./15 cm</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Colour</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Princess Series</strong></td>
<td>Deep Blue, White</td>
<td>10-12</td>
<td>4.5 in./10-13 cm</td>
<td>4.5-6 in./12-15 cm</td>
</tr>
<tr>
<td><strong>Royal Dane Series</strong></td>
<td>Deep Blue, Deep Rose, White</td>
<td>10-12</td>
<td>2.25-5 in./6-13 cm</td>
<td>4.5-6 in./12-15 cm</td>
</tr>
</tbody>
</table>
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** 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 dark-eyed yellow gerbera on the market.
- **Select Mixture** Uniform mix of bold, bright colours.

Find product & growing info at panamseed.com / GERBERA 169
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

Flower timing is synchronized across the colour range in each Revolution series, so your product flows smoothly. No surprises... you grow, pick, pack and ship just as you planned. High uniformity enables a consistent, fully programmable, high-density crop year-round.
Bicolor Mixture

Red with Light Eye

Deep Pink with Light Eye

Orange with Light Eye

Pastel Orange

Bright Rose with Light Eye

Salmon Shades with Light Eye

Red with Dark Eye

Golden Yellow with Dark Eye

Yellow with Light Eye

Bicolor Red Lemon

White with Light Eye

Bicolor Red White

Bicolor Rose White

Bicolor Yellow Orange
**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.

---

**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.

---

**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

---

**NEW** ColorBloom Deep Rose with Light Eye

**Mega Revolution Watermelon, Revolution Bicolor Yellow Orange and NEW ColorBloom Cherry with Light Eye Gerbera**
New Potted Plants / Colorbloom

- Bicolor Orange Yellow
- Cherry with Light Eye
- Deep Rose with Light Eye
- Red with Light Eye
- Yellow with Dark Eye

Mixture

Yellow with Dark Eye, Bicolor Orange Yellow & Red Light Eye

Find product & growing info at panamseed.com / GERBERA 173
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.

LISIANTHUS

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
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 good-looking and cost-effective product off to market.

**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.

**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-leaved 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 habit.

<table>
<thead>
<tr>
<th>Series</th>
<th>Recommend pot size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choco Sun</td>
<td>5-6 in./13-15 cm, Gallon</td>
</tr>
<tr>
<td>Miss Sunshine F1</td>
<td>4.5-5 in./12-13 cm/Quart/11 cm</td>
</tr>
<tr>
<td>SunBuzz F1</td>
<td>5-6 in./13-15 cm, Gallon</td>
</tr>
</tbody>
</table>
NEW TOSCA BLUE SEA MATTHIOLA
Ideal for Summer growing, this new series makes a beautiful bouquet. See page 190.

NEW KATZ HI DOUBLE WHITE MATTHIOLA
Use this bright white beauty for 90% more usable double-flowered stems in the top selling colour. See page 190.
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.

Find product & growing info at panamseed.com
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

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.
Campanula medium

**Campanula 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/m\(^2\))
- **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** Large-flowered, 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 check out our centre-of-attention Jua sunflowers and lisianthus.

### Filler

These transitional varieties have clusters of individual flowers on a single stem or flower head, and are used to fill in spaces between 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 snapdragons and matthiola – feature flowers held close to the stem.

### Volume

Secondary to the focal flowers, blooms like matthiola and dianthus provide a dense burst of colour and add mass to the bouquet.

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**FLORAL SELECTION GUIDE FOR BOUQUETS**

<table>
<thead>
<tr>
<th>Class/Variety</th>
<th>Page</th>
<th>Focal</th>
<th>Filler</th>
<th>Line</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANEMONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mona Lisa Series</td>
<td>178</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASCLEPIAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silky Series</td>
<td>178</td>
<td>X</td>
<td></td>
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**SNAPDRAGON**

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CELOSIA
Celosia cristata (Cockscomb)

**Bombay 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
- **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.

---

**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.
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 better-quality 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.
**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 high-density 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.
CELOSIA

*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.

DIANTHUS

*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 Autumn-transplanted 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.

**Neon Cherry**

**Neon Purple**

**Rose Magic**

RHS Award of Garden Merit

**Dependable performance... by the bunch!**

Versatile and programmable, Amazon can be produced year-round 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!
DIANTHUS
Dianthus barbatus

**Sweet™ Series F1**

**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, greenhouse-grown plants.

**Deep Pink Maxine** More intense colour than Sweet Pink. A top-selling colour in most markets.

**White** Pure white with no grey anthers.
CUT FLOWERS / FLARE

LIMONIUM (STATICE)
Limonium sinuatum

**QIS Series**

**Height:** 30 to 35 in./76 to 89 cm  
**Seed supplied as:** Raw  
**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.

**F₂, DOUBLE-FLOWERED LISIANTHUS**
Eustoma grandiflorum

**Flare 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

- 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.

<table>
<thead>
<tr>
<th>SEASONALITY NUMBER GUIDE FOR FLARE SERIES</th>
</tr>
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<tbody>
<tr>
<td><strong>Speed Guide</strong></td>
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<tr>
<td><strong>Speed 2</strong></td>
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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.

Find product & growing info at panamseed.com / LISIANTHUS 185
F<sub>1</sub> 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.<sup>2</sup> (84 plants/m<sup>2</sup>) Summer; 6 plants/ft.<sup>2</sup> (64 plants/m<sup>2</sup>) 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.
### SEASONALITY NUMBER GUIDE FOR ABC SERIES

<table>
<thead>
<tr>
<th>Speed Guide</th>
<th>ABC Varieties</th>
<th>Winter (Cool Temp.)</th>
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<td>1 White</td>
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**MATRICARIA**

Request your Product Information Guide for full culture details.

**CUT FLOWERS / VEGMO**

**MATRICARIA (TANACETUM)**

*Tanacetum parthenium*

**Vegmo Series**

- **Height:** 28 to 36 in./71 to 91 cm
- **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.

Also available: **Single Yellow**

**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 greenhouse-grown 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™ 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.

<table>
<thead>
<tr>
<th>Aida Series</th>
<th>Figaro Series</th>
<th>Opera Series</th>
<th>Mathilda™ Series</th>
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<td>Stem length: 30 in./75 cm</td>
<td>Stem length: 32 in./81 cm</td>
<td>Stem length: 32 in./81 cm</td>
</tr>
</tbody>
</table>

**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
CUT FLOWERS / COLUMN STOCK

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 spaced on the stems.
- 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

Find product & growing info at panamseed.com / MATTHIOLA 189
NORTHERN GREENHOUSE SELECTABLE MATTHIOILA (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.

**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.
EXTRA-EARLY FLOWERING TUNNEL OR FIELD-GROWN MATTHIOLA (STOCK)  
Matthiola incana

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 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% double-flowering types.  
Cherry Blossom ASCFG 2013 Fresh Cut Flower of the Year.

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 to have Philip Katz as our Cut Flower Product Manager for 13 years. Philip spearheaded the drive to grow our business in this important market into one that is 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.
CUT FLOWERS / MARYLAND

CUT FLOWERS /
MARYLAND

MARYLAND SERIES

• 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)

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)
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.
Early Potomac Series

- Can be grown under medium to long days and moderate to high light levels.
- Ideal for Spring and Autumn programs, producing very high-quality, long stems with excellent taper.

Potomac™ Series

- Tops for production during periods of high light, long days and warm temperatures.
- 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.
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 response and earliness 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.
F1 SNAPDRAGON continued

**Cool Series**

*(Group 1,2)*

- Best, most uniform Winter-flowering 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**

*(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.
**F1 SUNFLOWER**  
*Helianthus annuus*

**Jua Series**

**Height**: 36 to 60 in./91 to 152 cm  
**Seed supplied as**: Treated  
**Planting density**: 6 to 9 days after seedlings emerge, thin to 4 to 5 plants/ft.² (42 to 52 plant/m²)  
**Best for**: High tunnel, field  

**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.
TRACHELION • Trachelium caeruleum

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 Series
(Spring and Autumn-Flowering)
- The greatest potential for year-round 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.
**PRODUCTION GUIDE**

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PanAmerican Seed breeders constantly create new plants as well as genetic improvements on already-popular varieties. (Bombay Celosia)
**NEW ORANGE MARMALADE F1 SWEET BELL PEPPER**
Early-ripening, sweet and flavourful bell peppers will brighten up any salad or stir fry. See page 205.

**SNACKABELLE RED SWEET PEPPER**
These peppers are great in containers for small spaces. See page 205.

**NEW EVERLEAF EMERALD TOWERS BASIL**
Versatile, towering basil is good in pots and in the ground. See page 213.
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 world-class 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
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<th>Name</th>
<th>Type</th>
<th>Fruit characteristics</th>
<th>Days to maturity from direct seed</th>
<th>Fruit size</th>
<th>Flower type</th>
<th>Disease resistance</th>
<th>Comments</th>
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<tr>
<td><strong>Gherking F1</strong></td>
<td>European pickler</td>
<td>Medium green skin, highly spined</td>
<td>55-60</td>
<td>3-5 in./8-13 cm long</td>
<td>Gynoecious, parthenocarpic</td>
<td>HR: CMV-1, S, IR: DM, PM</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Martini F1</strong></td>
<td>American slicer</td>
<td>White skin, slightly spined</td>
<td>55-60</td>
<td>5-6 in./13-15 cm long x 1.5-2 in./4-5 cm wide</td>
<td>Monoecious</td>
<td>IR: PM</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Patio Snacker F1</strong></td>
<td>American slicer</td>
<td>Medium green skin, moderately spined</td>
<td>50-55</td>
<td>6-8 in./15-20 cm long x 1.5-2 in./4-5 cm wide</td>
<td>Monoecious, parthenocarpic</td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

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
**EGGPLANT**  
*Solanum melongena*

Seed supplied as: Raw

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<th>Name</th>
<th>Days to maturity from transplant</th>
<th>Fruit size</th>
<th>Fruit characteristics</th>
<th>Calyx colour</th>
<th>Plant habit</th>
<th>Comments</th>
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<tr>
<td>Gretel F₁</td>
<td>55-60</td>
<td>3-4 in./8-10 cm long (baby size)</td>
<td>White, elongated</td>
<td>Green</td>
<td>Upright, semi-spineless</td>
<td>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. All-America Selections National Winner.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-6 in./10-15 cm long (full size)</td>
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<td></td>
</tr>
<tr>
<td>Hansel F₁</td>
<td>50-55</td>
<td>2-3 in./5-8 cm long (baby size)</td>
<td>Black-purple, elongated</td>
<td>Green</td>
<td>Upright, semi-spineless</td>
<td>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. All-America Selections National Winner.</td>
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<tr>
<td></td>
<td></td>
<td>6-10 in./15-25 cm long (full size)</td>
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</tr>
<tr>
<td>Patio Baby F₁</td>
<td>40-45</td>
<td>2-3 in./5-8 cm long (baby size)</td>
<td>Purple, mini egg</td>
<td>Green</td>
<td>Compact, spineless</td>
<td>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. All-America Selections Regional Winner.</td>
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Find product & growing info at panamseed.com  /  EGGPLANT  203
### Hot Pepper

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<th>Days to Maturity from Transplant</th>
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<th>Plant Habit</th>
<th>Disease Resistance</th>
<th>Comments</th>
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<td><strong>Aji Rico F1</strong> Capsicum baccatum</td>
<td>70-75 to full ripe, 50-55 to green</td>
<td>Conical, green to red 3-4 in./8-10 cm long x 1.25-1.75 in./3-4 cm wide</td>
<td>Extra large, vigorous</td>
<td></td>
<td>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. All-America Selections National Winner.</td>
</tr>
<tr>
<td><strong>Cajun Belle</strong> Capsicum annuum</td>
<td>60-65 to full ripe, 45-50 to green</td>
<td>Mini bell, green to red 2.3 in./5-8 cm long x 2.3 in./5-8 cm wide</td>
<td>Medium</td>
<td></td>
<td>Produces bell peppers with mildly spicy taste just right for fresh eating and salsa. Harvest green or red. Best in-ground and in containers. All-America Selections National Winner.</td>
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<tr>
<td><strong>Golden Cayenne</strong> Capsicum annuum</td>
<td>85-90 to full ripe, 70-75 to green</td>
<td>Cayenne, green to yellow 3.5 in./8-13 cm long x 0.5-0.75 in./1-2 cm wide</td>
<td>Bush</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Habanero Primero Red F1</strong> Capsicum chinense</td>
<td>75-80 to full ripe, 60-65 to green</td>
<td>Habanero, green to red 2.75-3.5 in./7-9 cm long x 1.25-1.5 in./3-4 cm wide</td>
<td>Large</td>
<td>IR: BLS TSWV</td>
<td>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.</td>
</tr>
<tr>
<td><strong>La Bomba II F1 Jalapeño</strong> Capsicum annuum</td>
<td>65-70 to full ripe, 50-55 to green</td>
<td>Jalapeño, green to red 3.25 in./8 cm long x 1-1.15 in./3 cm wide</td>
<td>Tall, large</td>
<td>HR: BLS 1-3, TMV</td>
<td>Upgraded for superior disease resistance. Bears very large, high-quality jalapeños with little to no checking. Best in containers or in-ground.</td>
</tr>
</tbody>
</table>

---

Disease terminology: HR = High Resistance, IR = Intermediate Resistance

Disease codes: BLS - Bacterial Leaf Spot, TMV - Tobacco Mosaic Virus, TSWV - Tomato Spotted Wilt Virus
<table>
<thead>
<tr>
<th>Name</th>
<th>Days to maturity from transplant</th>
<th>Fruit characteristics</th>
<th>Plant habit</th>
<th>Disease resistance</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HOT PEPPER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mad Hatter F1</td>
<td>85-90 to full ripe, 65-70 to green</td>
<td>Unique disc, green to red 2-3.5 in./5-9 cm long x 2-2.5 in./5-6 cm wide</td>
<td>Extra large, vigorous</td>
<td>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. All-America Selections National Winner.</td>
<td></td>
</tr>
<tr>
<td>Sweet Heat F1</td>
<td>55-60 to full ripe, 40-45 to green</td>
<td>Snack, green to red 3.5-4 in./9-10 cm long x 1.25-1.75 in./3-4 cm wide</td>
<td>Compact</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>SWEET PEPPER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candy Cane Red F1</td>
<td>60-65 to full ripe, 40-45 to green</td>
<td>Snack, green/white stripe to red 3.5-4 in./9-10 cm long x 1.25-1.75 in./3-4 cm wide</td>
<td>Medium</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>Orange Marmalade F1</td>
<td>70-75 to full ripe, 55-60 to green</td>
<td>Bell, green to orange 3.5-4 in./9-10 cm long x 6-7 oz. (170 to 198 g)</td>
<td>Bush</td>
<td>HR: BLS 1-3, 7, 8; TMV</td>
<td>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.</td>
</tr>
<tr>
<td>Snackabelle Red F1</td>
<td>70-75 to full ripe, 55-60 to green</td>
<td>Mini bell, green to red 2-2.25 in./5-6 cm long x 2-2.25 in./5-6 cm wide</td>
<td>Compact</td>
<td>HR: BLS 1-3, 7, 8; TMV</td>
<td>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.</td>
</tr>
</tbody>
</table>
## Name | Days to maturity from transplant | Fruit characteristics | Growth | Disease resistance | Comments
--- | --- | --- | --- | --- | ---
**CHERRY**

**New Artemis F1**
- **Name:** New Artemis F1
- **Days to maturity from transplant:** 50-55
- **Fruit characteristics:** Round, medium, red
  1-1.3 in./3 cm long x 1 in./3 cm wide,
  0.3-0.5 oz. (9 to 14 g)
- **Growth:** I
- **Disease resistance:** HR: F1, F2, LM, N, TMV, ToMV
- **Comments:** One bite of these super-sweet, rich, red cherry tomatoes will have you craving more.
  The unique, crisp, firm texture is great in a salad or for sauce.
  High disease resistance to root-zone and foliar disease will ensure excellent plant health.
  Best grown in-ground.

**Chocolate Sprinkles F1**
- **Name:** Chocolate Sprinkles F1
- **Days to maturity from transplant:** 50-55
- **Fruit characteristics:** Elongated, medium,
  dark red with green stripes
  1.5 in./4 cm long x 1 in./3 cm wide
- **Growth:** I
- **Disease resistance:** HR: F1, N, TMV, ToMV
- **Comments:** First in this type with a disease-resistance package.
  Unique dark red with green stripe exterior and purple flesh colour.
  Produces more fruit with better flavour than similar O.P. varieties.
  Best in-ground.

**New Helix F1**
- **Name:** New Helix F1
- **Days to maturity from transplant:** 50-55
- **Fruit characteristics:** Elongated, medium,
  bright red
  1.1-1.4 in./3-4 cm long x 1 in./3 cm wide,
  0.3-0.5 oz. (9 to 14 g)
- **Growth:** I
- **Disease resistance:** HR: F1, F2, LB, N, TMV, ToMV, V
- **Comments:** Experience the taste of Summer with a perfect balance of sweet and acid from Helix red cherry tomato.
  With early-ripening fruit and high yields, Helix is perfect for fresh eating.
  High resistance to root-zone and foliar diseases, including Late Blight resistance, will help ensure excellent plant health.
  Best grown in-ground.

**Little Bing F1**
- **Name:** Little Bing F1
- **Days to maturity from transplant:** 60-65
- **Fruit characteristics:** Round, medium, red
  1 in./3 cm long
- **Growth:** CD
- **Disease resistance:** HR: F2, V
- **Comments:** Part of the Little Collection of dwarf determinate varieties.
  Fruit sets and ripens over a period of a few weeks, allowing harvest of many tomatoes at one time.
  Yields large amounts of flavour-filled, red cherry tomatoes for fresh eating or to add to recipes.
  Best in containers, with or without support.

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**TOMATO**

*Solanum lycopersicum* *(Lycopersicon esculentum)*

*Seed supplied as:* Raw

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## Handpicked Vegetables & Herbs / Tomato

**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

<table>
<thead>
<tr>
<th>Name</th>
<th>Days to maturity from transplant</th>
<th>Fruit characteristics</th>
<th>Growth</th>
<th>Disease resistance</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHERRY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro Tom</td>
<td>50</td>
<td>Round, small, red 0.5-0.75 in./1-2 cm long</td>
<td>CD</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>Midnight Snack F1</td>
<td>65-70</td>
<td>Round, medium, red with black overlay 1.5 in./4 cm long</td>
<td>I</td>
<td>HR: F1, TMV, ToMV</td>
<td>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. All-America Selections National Winner.</td>
</tr>
<tr>
<td>Orange Zinger F1</td>
<td>60-65</td>
<td>Round, large, dark orange 1.5-2 in./4-5 cm long</td>
<td>I</td>
<td>HR: F1, TMV</td>
<td>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.</td>
</tr>
<tr>
<td>Sugar Rush F1</td>
<td>50-55</td>
<td>Elongated, medium, red 0.75-1.25 in./2-3 cm long x 0.5-1 in./1-3 cm wide</td>
<td>I</td>
<td>HR: F1, TMV</td>
<td>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.</td>
</tr>
</tbody>
</table>

Find product & growing info at panamseed.com / [TOMATO 207](#)
### Name

<table>
<thead>
<tr>
<th>Name</th>
<th>Days to maturity from transplant</th>
<th>Fruit characteristics</th>
<th>Growth</th>
<th>Disease resistance</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHERRY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tidy Treats F1</td>
<td>50-55</td>
<td>Round, small, red 0.75-1 in./2-3 cm long</td>
<td>CI</td>
<td>HR: F1, V</td>
<td>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.</td>
</tr>
<tr>
<td>Topsy Tom F1</td>
<td>50-55</td>
<td>Round, medium, red 1 in./3 cm long x 1.25 in./3 cm wide</td>
<td>SD</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>Tumbler F1</td>
<td>48-50</td>
<td>Round, medium, red 1.25 in./3 cm long</td>
<td>D</td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

### CURRANT

<table>
<thead>
<tr>
<th>Name</th>
<th>Days to maturity from transplant</th>
<th>Fruit characteristics</th>
<th>Growth</th>
<th>Disease resistance</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candyland Red</td>
<td>55-60</td>
<td>Red 0.5 in./1 cm long x 0.5 in./1 cm wide</td>
<td>I</td>
<td></td>
<td>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. All-America Selections National Winner.</td>
</tr>
</tbody>
</table>

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  

Request your Product Information Guide for full culture details.
New twists on old garden favourites

We trialed hundreds of heirlooms for key traits like colour, flavour, quality, yield. Our favourites were selected...crossed...tested and evaluated. The result: Heirloom Marriage™ hybrid tomatoes, with much higher yields and earlier maturity than their parents, plus all of the great flavour and less fruit blemishes.

TOMATO
*Solanum lycopersicum*  
(*Lycopersicon esculentum*)

Seed supplied as: Raw

<table>
<thead>
<tr>
<th>Name</th>
<th>Days to maturity from transplant</th>
<th>Fruit characteristics</th>
<th>Growth</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEIRLOOM MARRIAGE™ COLLECTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Brandy F₁</td>
<td>75-80</td>
<td>Beefsteak, pink</td>
<td>I</td>
<td>Big, pink fruit with outstanding flavour is a cross of Big Dwarf and Brandywine. Best in-ground.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12-15 oz. (340-425 g)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cherokee Carbon F₁</td>
<td>75-80</td>
<td>Beefsteak, purple</td>
<td>I</td>
<td>Robust purple beefsteak with rich flavour. A cross of Cherokee Purple and Carbon. Best in-ground.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10-12 oz. (283-340 g)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genuwine F₁</td>
<td>70-75</td>
<td>Slicer, red</td>
<td>I</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.5-11.5 oz. (298-326 g)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marzinera F₁</td>
<td>70-75</td>
<td>Roma, red</td>
<td>I</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-4 oz. (85-113 g)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfect Flame F₁</td>
<td>70-75</td>
<td>Saladette, orange</td>
<td>I</td>
<td>Orange saladette tomato with sweet-tart fruitiness. Earliest-ripening Heirloom Marriage variety. A cross of Peron and Flamme. Best in-ground.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-3 oz. (57-85 g)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Growth: CD - Compact Determinate, CI - Compact Indeterminate, D - Determinate, I - Indeterminate, SD - Semi-determinate
**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

Request your Product Information Guide for full culture details
Tidy Rose

Sunrise Sauce

Homeslice

Stellar

HANDPICKED VEGETABLES & HERBS / TOMATO

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### SQUASH

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Exterior colour</th>
<th>Days to maturity from direct seed</th>
<th>Fruit size/weight</th>
<th>Plant habit</th>
<th>Disease resistance</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butterbaby Butternut Squash</td>
<td>Cucurbita moschata</td>
<td>Mini butternut</td>
<td>100-105</td>
<td>4-6 in./10-15 cm long x 3-4 in./8-10 cm wide, 0.5-1.5 lb./227-680 g</td>
<td>Restricted Vine</td>
<td>IR: PM</td>
<td>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.</td>
</tr>
<tr>
<td>Honeynut Butternut Squash</td>
<td>Cucurbita moschata</td>
<td>Mini butternut</td>
<td>105-110</td>
<td>4-5 in./10-13 cm long x 2.5-4 in./6-10 cm wide, 0.5-1 lb./227-454 g</td>
<td>Restricted Vine</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>Easy Pick Gold II Zucchini</td>
<td>Cucurbita pepo</td>
<td>Gold</td>
<td>45-50</td>
<td>1-10 in./3-25 cm long</td>
<td>Bush</td>
<td>IR: PRSV, WMV, ZYMV</td>
<td>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 with no pain and less scarring on fruit. Parthenocarpic variety means that plants will produce fruit without insect pollination. Harvest from a very small size with a flower attached. Best in-ground.</td>
</tr>
<tr>
<td>Easy Pick Green F1 Zucchini</td>
<td>Cucurbita pepo</td>
<td>Dark green</td>
<td>45-50</td>
<td>1-10 in./3-25 cm long</td>
<td>Bush</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Lemon Sun F1 Zucchini</td>
<td>Cucurbita pepo</td>
<td>Yellow</td>
<td>40-45</td>
<td>1-3 in./3-8 cm long x 1-5 in./3-13 cm wide</td>
<td>Bush</td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

### STRAWBERRY

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Height: Spread:</th>
<th>Days from transplant to ripe fruit:</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresca</td>
<td>Fragaria x ananassa</td>
<td></td>
<td>85</td>
<td>Produces medium-size berries from the start of Summer through Autumn. Best in baskets, containers and in-ground.</td>
</tr>
</tbody>
</table>

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
### BASIL

**Ocimum basilicum**

<table>
<thead>
<tr>
<th>Name</th>
<th>Height</th>
<th>Spread</th>
<th>Days to Maturity from Transplant</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dolce Fresca</strong></td>
<td>12-14 in./30-36 cm</td>
<td>10-12 in./25-30 cm</td>
<td>28</td>
<td>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. All-America Selections National Winner.</td>
</tr>
<tr>
<td><strong>New Everleaf Emerald Towers</strong></td>
<td>24-36 in./61-91 cm</td>
<td>8-12 in./20-30 cm</td>
<td>30-45</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Everleaf Genovese</strong></td>
<td>18-24 in./46-61 cm</td>
<td>12-18 in./30-46 cm</td>
<td>30-45</td>
<td>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!</td>
</tr>
<tr>
<td><strong>New Newton</strong></td>
<td>12-20 in./30-51 cm</td>
<td>10-16 in./25-41 cm</td>
<td>21-30</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Purple Ruffles</strong></td>
<td>18-24 in./46-61 cm</td>
<td>18-24 in./46-61 cm</td>
<td>28</td>
<td>Ornamental variety has fragrant, ruffled, deep purple leaves with mild anise flavour. All-America Selections National Winner.</td>
</tr>
<tr>
<td><strong>Sweet Dani Lemon</strong></td>
<td>22-24 in./56-61 cm</td>
<td>18-24 in./46-61 cm</td>
<td>28</td>
<td>Flavourful and fragrant – up to 75% more total essential oils than standard lemon basils. Vigorous garden performer. All-America Selections National Winner.</td>
</tr>
</tbody>
</table>

### DILL

**Anethum graveolens**

<table>
<thead>
<tr>
<th>Name</th>
<th>Height</th>
<th>Spread</th>
<th>Days to Maturity from Transplant</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fernleaf</strong></td>
<td>12-15 in./30-38 cm</td>
<td>10-12 in./25-30 cm</td>
<td>28</td>
<td>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. All-America Selections National Winner.</td>
</tr>
</tbody>
</table>
SimplyHerbs controlled seed input produces a healthy, uniform product for retail.

**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.*

SimplyHerbs Basil and ‘Try Basil’ grown with Precision Multi-Pellets in hydroponic production.
SimplyHerbs Dill
SimplyHerbs ‘Try Basil’
SimplyHerbs Basil
SimplyHerbs Rosemary
SimplyHerbs Large-Leaf Italian Flat Leaf Parsley
SimplyHerbs Curled Parsley
SimplyHerbs Oregano
SimplyHerbs Sage
SimplyHerbs Thyme
### 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.

---

<table>
<thead>
<tr>
<th>Name</th>
<th>Seed supplied as</th>
<th>Seeds per pellet</th>
<th>Height</th>
<th>Spread</th>
<th>Days to maturity from transplant</th>
<th>Comments</th>
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<tr>
<td>Alfresco Mixture</td>
<td>MPL</td>
<td>10-12</td>
<td>12 in./30 cm</td>
<td>12 in./30 cm</td>
<td>2-4 weeks</td>
<td>Red and green leaf lettuces with arugula, endive and radicchio.</td>
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<tr>
<td>Arugula</td>
<td>PMPL</td>
<td>6</td>
<td>12-18 in./30-46 cm</td>
<td>12-18 in./30-46 cm</td>
<td>2-4 weeks</td>
<td>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.</td>
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<tr>
<td>City Garden Mixture</td>
<td>MPL</td>
<td>7-9</td>
<td>12 in./30 cm</td>
<td>12 in./30 cm</td>
<td>2-4 weeks</td>
<td>Red and green lettuces.</td>
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<tr>
<td>Cress</td>
<td>PMPL</td>
<td>6</td>
<td>6-12 in./15-30 cm</td>
<td>8-12 in./20-30 cm</td>
<td>3-4 weeks</td>
<td>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.</td>
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<tr>
<td>Global Gourmet Mixture</td>
<td>MPL</td>
<td>10-12</td>
<td>12 in./30 cm</td>
<td>12 in./30 cm</td>
<td>2-4 weeks</td>
<td>Red and green leaf lettuces with spicy Asian greens.</td>
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<tr>
<td>Kale Storm Mixture</td>
<td>PMPL</td>
<td>8</td>
<td>12-24 in./30-61 cm</td>
<td>12-24 in./30-61 cm</td>
<td>2-4 weeks</td>
<td>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.</td>
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<tr>
<td>Summer Picnic Mixture</td>
<td>MPL</td>
<td>10-12</td>
<td>12 in./30 cm</td>
<td>12 in./30 cm</td>
<td>2-4 weeks</td>
<td>A season extender! Heat-tolerant, late-bolting mix of red and green lettuces.</td>
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<tr>
<td>Wonder Wok Mixture</td>
<td>MPL</td>
<td>10-12</td>
<td>12 in./30 cm</td>
<td>12 in./30 cm</td>
<td>2-4 weeks</td>
<td>Mix of Asian greens including mustards, kale and bok choy.</td>
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</table>

**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 / SIMPLY SALAD

SimplySalad Series

Cress
Arugula
Alfresco Mixture
Global Gourmet Mixture
Wonder Wok Mixture
Summer Picnic Mixture
Kale Storm Mixture
City Garden Mixture

A seed first! SimplySalad multi-pellets produce a well-balanced salad mix with one sowing.

Precision Multi-Pellet
Standard Multi-Pellet

Find product & growing info at panamseed.com / SIMPLY SALAD 217
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<th>Class/Variety</th>
<th>Page</th>
<th>Fresh Market</th>
<th>Hydroponic</th>
<th>Protected Culture</th>
<th>Home Garden</th>
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<td>Everleaf Genovese</td>
<td>213</td>
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<td>X</td>
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</table>

* Compact variety – best-suited to home garden use.
PLUG & PLAY WITH ORNAMENTAL PEPPERS

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

Find product & growing info at panamseed.com
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, easy-grow” plugs...

to grow great-looking, balanced combos that sell!

Order now from your preferred distributor

Fuseables Under The Sun
COOL WAVE® FUSEABLES SUNNY SKIES
Cool Wave Blue Skies Pansy &
Cool Wave Golden Yellow Pansy

COOL WAVE FUSEABLES FLOWER DATE
Cool Wave Golden Yellow Pansy &
Cool Wave Purple Pansy

FUSEABLES WINE COOLER
Sorbet® Midnight Glow Viola &
Clear Crystal® Purple Shades Alyssum

FUSEABLES SUNGLOW
Sorbet Lemon Chiffon Viola &
Sorbet Midnight Glow Viola

FUSEABLES SUNSET BOULEVARD
Sorbet Lemon Chiffon Viola &
Sorbet Peach Melba Viola

Grow all these early Spring combos cool for best finish.
FUSEABLES BLUEBERRY LIME JAM
Sophistica® Lime Green Petunia & Dreams™ Midnight Petunia

FUSEABLES LIME CORAL
Dreams Coral Morn Petunia & Sophistica Lime Bicolor Petunia

FUSEABLES PLEASANTLY BLUE
Dreams Midnight Petunia & Daddy® Blue Petunia

FUSEABLES UTOPIA
Blutopia® Bacopa & Snowtopia® Bacopa
**WAVE® FUSEABLES BLUE DAWN**

Easy Wave® Rosy Dawn Petunia & Blutopia Bacopa

**WAVE FUSEABLES RISE N SHINE**

Easy Wave Yellow Petunia & Easy Wave Rosy Dawn Petunia

**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 OOH LA LA**

Easy Wave Burgundy Star Petunia, Easy Wave Neon Rose Petunia & Shock Wave Coconut Petunia

Find product & growing info at panamseed.com / WAVE FUSEABLES 225
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.
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

**ON A CLEAR DAY**
Cool Wave Purple Pansy, Cool Wave White Pansy & Cool Wave Golden Yellow Pansy

**PURPLE SUNSET**
Cool Wave Purple Pansy, Cool Wave Golden Yellow Pansy & Cool Wave Blue Skies Pansy

**YELLOW HEAVEN**
Cool Wave Lemon Pansy, Cool Wave White Pansy & Cool Wave Golden Yellow Pansy

Grow all these early Spring combos cool for best finish.
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

**FLYING THE FLAG**
Easy Wave Red Velour Petunia, Easy Wave White Petunia & Combo Blue Petunia

**SUBTLE PERFECTION**
Easy Wave Pink Passion Petunia, Easy Wave Silver Petunia & Shock Wave Deep Purple Petunia

**MAD ABOUT RED**
Easy Wave Red Velour Petunia & Easy Wave Yellow 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.
LEMON DREAM
Kabloom Yellow Calibrachoa, Easy Wave Yellow Petunia & 21st Century White Phlox

ROSY KISSES
Easy Wave Yellow Petunia, Easy Wave Rosy Dawn Petunia & Shock Wave Deep Purple Petunia

DUSK TO DAWN
Easy Wave Plum Vein Petunia & Shock Wave Pink Vein Petunia

LEMON DREAM
Kabloom Yellow Calibrachoa, Easy Wave Yellow Petunia & 21st Century White Phlox

ROSY KISSES
Easy Wave Yellow Petunia, Easy Wave Rosy Dawn Petunia & Shock Wave Deep Purple Petunia

DUSK TO DAWN
Easy Wave Plum Vein Petunia & Shock Wave Pink Vein Petunia

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

FIRECRACKER

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

FIRECRACKER

SURFIN’ SAFARI
Shock Wave Coral Crush Petunia & Shock Wave Denim Petunia

ROSY KISSES
Easy Wave Yellow Petunia, Easy Wave Rosy Dawn Petunia & Shock Wave Deep Purple Petunia

SWEETHEART
Easy Wave Red Velour Petunia & Easy Wave Pink Passion Petunia

SURFIN’ SAFARI
Shock Wave Coral Crush Petunia & Shock Wave Denim Petunia

ROSY KISSES
Easy Wave Yellow Petunia, Easy Wave Rosy Dawn Petunia & Shock Wave Deep Purple Petunia

SWEETHEART
Easy Wave Red Velour Petunia & Easy Wave Pink Passion Petunia
Fly Me To The Moon
Easy Wave Burgundy Velour Petunia, Easy Wave White Petunia & Easy Wave Neon Rose Petunia

Seeing Stars
Easy Wave Burgundy Star Petunia & Easy Wave Neon Rose Petunia

Razzle Dazzle
NEW Kabloom Blue Calibrachoa, Easy Wave Pink Passion Petunia & Quartz XP Burgundy with Eye Verbena

After Dark
Easy Wave Burgundy Velour Petunia & Easy Wave Neon Rose Petunia

Coral Lights
Easy Wave Yellow Petunia, Shock Wave Coral Crush Petunia & Glitz Euphorbia

Fire N Nice
Easy Wave Red Velour Petunia & Glitz Euphorbia

Royal Sparkler
Easy Wave Burgundy Velour Petunia, Easy Wave Silver Petunia & Glitz Euphorbia

Puttin’ On The Pink
Easy Wave Neon Rose Petunia & Glitz Euphorbia

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.
WAVE PLUG & PLAY COMBOS

**EVENING IN RIO**
Easy Wave Violet Petunia & Easy Wave Neon Rose Petunia

**BLUE HAWAII**
Easy Wave Rosy Dawn Petunia & Shock Wave Denim Petunia

**OPPOSITES ATTRACT**
Easy Wave Violet Petunia & Easy Wave Coral Reef Petunia

**TWINKLE TWINKLE**
Easy Wave Burgundy Star Petunia & Shock Wave Coconut Petunia

**O CANADA**
Easy Wave Red Petunia & Easy Wave White Petunia

**THE FLAG**
Easy Wave Red Petunia, Easy Wave White Petunia & Easy Wave Blue Petunia

**BEACH PARTY**
Shock Wave Denim Petunia & Shock Wave Pink Shades Petunia

**COCO COLADA**
Shock Wave Coconut Petunia & Shock Wave Coral Crush Petunia

**RED, WHITE & BLUES**
Shock Wave Coconut Petunia, Shock Wave Denim Petunia & Shock Wave Red Petunia

Request your Product Information Guide for full culture details
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!

**ITALIAN BISTRO**
Little Napoli Tomato, SimplyHerbs™ Curled Parsley & Easy Wave Red Velour Petunia

**LUNCH DATE**
Patio Baby Eggplant, SimplyHerbs ‘Try Basil’ & Bonanza™ Yellow French Marigold

**FOODIE BLUES**
Patio Baby Eggplant, Dolce Fresca Basil & Combo Blue Petunia

**CANTINA HEAT**
Sweet Heat Pepper, Combo Blue Petunia & Bonanza Yellow French Marigold

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

AIRBRUSH’D
Tattoo™ Raspberry Vinca, Titan™ Polka Dot Vinca & Titan Rose Halo Vinca

SHINING STARS
Lucky Star Lavender Pentas, Lucky Star Deep Pink Pentas & Lucky Star White Pentas

BERRY BURST
Titan Really Red Vinca, Tattoo Black Cherry Vinca & Titan Rose Halo Vinca

STAR BRIGHT
Lucky Star Dark Red Pentas, Lucky Star Deep Pink Pentas & Lucky Star Lavender Pentas

SUMMER SMOOTHIE
Valiant™ Orchid Vinca, Valiant Pure White Vinca & Valiant Burgundy Vinca

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.
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
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.
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.

NEW HOCUS POCUS
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.

NEW COLOR CARNIVAL
Wicked Ornamental Pepper & Santos Orange Ornamental Pepper

NEW FIRELIGHTER
Blaze Ornamental Pepper & Hot Pops Purple Ornamental Pepper
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 GOLDEN ERA**
Double the Sun Coreopsis & Blue Spear Lavandula

**NEW SUN SEA AND ROSÉ**
PowWow® Wild Berry Echinacea, Mesa™ Peach Gaillardia & Blue Spear Lavandula

**NEW FEELING FRISKY**
NEW Madonna Leucanthemum, Jealousy Leycesteria & Mesa Red Gaillardia

**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 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 Anemone

PARIS IN SPRINGTIME
Starship Deep Rose Lobelia & ‘Cheyenne Spirit’ Echinacea

VERY VESUVIUS
Starship Scarlet Lobelia, Sunfire Coreopsis & Ellagance Purple Lavender

SUMMER/AUTUMN
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240 SALES & CUSTOMER SERVICE

Request your Product Information Guide for full culture details.
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
Angelmania Serena 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 Hat Hensel
Gaillardia Mesa Yellow
Gaura ‘Sparkle White’
Gaillardia Mesa Yellow
Eggplant Gretel
Eggplant Hat Hensel
Gaillardia Mesa Yellow
Gaura ‘Sparkle White’
Echinacea PowWow Wild Berry
Eggplant Gretel
Eggplant Hat Hensel
Gaillardia Mesa Yellow
Gaura ‘Sparkle White’
Echinacea PowWow Wild Berry

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
Cramphens QIS Carmine
Lavandula Elagance Ice
Lobelia Regatta Blue Splash
Lobelia Regatta Rose
Lobelia Riviera Midnight Blue
Lobelia Riviera White
French Marigold Bonanza Deep Orange
Penstemon Carrillo Red
Ornamental Pepper Black Pearl
Perovskia Blue Steel
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 Dream
Verbena Quartz XP Purple
Vinca Pacifica XP Burgundy Halo
Vinca Pacifica XP Burgundy Halo
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 Red
Bellis Bellissima Rose
Bellis Bellissima Rose Bicolor
Bellis Bellissima White
Celosia Kosmo Purple Red

NEW Leucanthemum Madonna
Nemesia Sundrops Mixture
Osteospermum Akila Daisy White
Penstemon Carrillo 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

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 Elagance Purple
Lavandula Elagance Sky

NEW Madonna Leucanthemum
Fleuroselect Gold Medal
NEW Wave Carmine Velour Spreading Petunia
All-America Selections National Winner

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 ‘Elagance Purple’
Lavandula ‘Elagance Sky’

NEW Leucanthemum Madonna
Nemesia Sundrops Mixture
Osteospermum Akila Daisy White
Penstemon Carrillo 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

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

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 Red
Bellis Bellissima Rose
Bellis Bellissima Rose Bicolor
Bellis Bellissima White
Celosia Kosmo Purple Red

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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 Debonair™ Lime Green
Petunia Sophistica® Antique Shades
Petunia Sophistica® Blackberry
Petunia Sophistica® Lime Bicolor
Petunia Sophistica® Black Cherry
Petunia Debonair™ Lime Green
Fuseables® Petunia Lime Coral

US 7,915,504
Alyssum Clear Crystal® Purple Shades
Alyssum Clear Crystal® Mixture
Alyssum Clear Crystal® Lavender Shades

US 8,008,416
Spreading Petunia Easy Wave® Berry Velour
Spreading Petunia Easy Wave® Burgundy Velour
Spreading Petunia Easy Wave® Red Velour
Spreading Petunia Tidal Wave® Red Velour

US 7,696,416
Ornamental Pepper Sangria

US 9,301,465
Echinacea Cheyenne Spirit
Echinacea PowWow® Wild Berry

US 9,307,712
Ornamental Pepper Hot Pops Purple

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

US. 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 Kablooey™ Yellow

U.S. PLANT VARIETY PROTECTIONS
Celosia Neo™ Gold - 46508
Celosia Neo™ Orange - 44055
Celosia Neo™ Pink - 43694
Celosia Neo™ Red - 46509
Celosia Neo™ Rose - 43693
Coreopsis SunKiss - 44544
Echinacea PowWow® Wild Berry - 35233
Heuchera Melting Fire - 20557
Lavandula Ellagance Pink - 40059
Lavandula Lavance Deep Purple - 48822
Lavandula Laxibunda - 37273
Salvia interspecific Big Blue - 49559

EUROPEAN COMMUNITY PLANT BREEDER’S RIGHTS
Cuphea Pink Shimmer
French Marigold Bonanza™ Bolero
French Marigold Bonanza™ Deep Orange
French Marigold Flamenco
Ornamental Oregano Kirigami
Vinca Tattoo™ Black Cherry
Vinca Tattoo™ Papaya
Vinca Tattoo™ Raspberry

U.S. PLANT VARIETY PROTECTIONS
APPLIED FOR
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® Raspberry - 201500215
Zinnia Zahara® Red - 201600030
Zinnia Zahara® White - 201400297
Zinnia Zahara® Yellow - 201500214
Zinnia Zahara® XL Pink - 201200482
Zinnia Zahara® XL White - 201200485
Zinnia Zahara® XL Yellow - 201200483

U.S. PLANT VARIETY PROTECTIONS
EUROPEAN COMMUNITY PLANT BREEDER’S RIGHTS
APPLIED FOR
Lavandula Avignon Early Blue
Lavandula Blue Spear

EUROPEAN COMMUNITY PLANT PATENTS
APPLIED FOR
French Marigold Fireball
French Marigold Strawberry Blonde
Fuseables® Petunia Blueberry Lime Jam
Fuseables® Petunia Lime Coral
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

Zinnia Zahara® Mixture
Zinnia Zahara® Salmon
Zinnia Dahlia Mixture
Zinnia Dahlia Salmon
Zinnia Dahlia Sunset
Zinnia Dahlia Yellow

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® Raspberry - 201500215
Zinnia Zahara® Red - 201600030
Zinnia Zahara® White - 201400297
Zinnia Zahara® Yellow - 201500214
Zinnia Zahara® XL Pink - 201200482
Zinnia Zahara® XL White - 201200485
Zinnia Zahara® XL Yellow - 201200483

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PanAmerican Seed
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, representations or understandings 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 written and 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 its 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 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 referencing the current 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 (18% 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 if the steps listed in Section (b) below are followed: PURCHASER WILL NOT REFUSE TO RETURN DAMAGED OR DEFECTIVE 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; 4) 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 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.

PHYSOTANSEAL CERTIFICATES CHARGE

Depending on the Goods ordered by Purchaser and the location of the Purchaser, Physotansel Certificates may be required to comply with government regulations. If the shipment requires Physotansel 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 of omission of Purchaser’s 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 basis. 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 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 have against Purchaser on the 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, and that the WARRANTIES are IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES NOT EXPRESSLY SET FOR THE GOODS, 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 SELLER WILL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUES.

USE RESTRICTION

Use restriction is 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 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 BY PURCHASER IN A COURT AT ALL TIMES WITHIN (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 HELD 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, govern all matters arising out of or relating to Seller’s sale of merchandise. PURCHASER DISPUTE NOT TO ARBITRATE AND ANY ACTION TO ENFORCE AN ARBITRATION AGREEMENT 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 expenses, including attorney’s fees, asserted by or any transferees of such Goods or users of the products of such Goods (i) arising from any act or omission of Purchaser or its employees or agents, or (ii) who were not notified by Purchaser in writing of their duty to Seller. Seller’s limitation of Remedy, Mandatory Arbitration, Governing Law, Jurisdiction and Venue, and Notice of Seed-Borne Diseases, as 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 SOLD, DIVERTED, TRANSFERRED OR EXPORTED DIRECTLY OR INDIRECTLY, TO ANY INDIVIDUAL, ENTITY, OR DESTINATION THAT IS SUBJECT TO UNITED STATES OR UNITED NATIONS SANCTIONS PROGRAMS (INCLUDING, BUT NOT LIMITED TO, OFAC SANCTIONS PROGRAMS, WHICH 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.

IMAGES

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PanAmerican Seed
PANAMERICAN SEED IS YOUR NUMBER 1 CHOICE FOR:

SUPPLY
Go-to assortment for you and your customers.

RELIABILITY
to keep your business going.

QUALITY
you can rely on.

AVAILABILITY
when you need it.

SUPPORT
from our customer service and technical teams that are here to help!

PanAmerican Seed®
622 Town Road, West Chicago, IL
60185-2698 USA

panamseed.com makes it easier for you to grow
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The Netherlands: +31 (0) 228-541-844

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