PanAmerican Seed is an innovation-driven, global company that reliably delivers the best solutions on the market. We provide you with strong genetic varieties, bold new colours and the highest-quality seed to give you the best chance for a more profitable season. With our products and your energy, we can grow successfully together.

**THE BEST IN SEED AND BEYOND**

**INNOVATIVE BREEDING**
Innovation is at the core of what we do. Our team pushes the boundaries every day, seeking new challenges that will help our customers achieve better performance - both today and moving into the future.

**CHALLENGES INSPIRE US**
You, our customers, challenge us. Your needs motivate us to be more innovative, reaching higher to uphold our reputation as your best possible supplier. We know that the key to staying ahead of challenges is finding solutions that make growing easier and more profitable for us both. That's why we share our expertise, marketing support and customised programs to fit your business needs. We want to work with you to be your top choice for supplying products for all your customers.

**MORE THAN JUST SEED**
After celebrating our 75th anniversary in 2022, we realized it was time for PanAmerican Seed to start a new chapter. As we continue to grow as a company in our breeding technologies and production, it is important to symbolise our commitment to global growing success. Therefore, I am happy to introduce our new icon that shows we are more than just seed! This icon represents the people of PanAmerican Seed who get up every day to be better, to do better and to grow better. Join us on this journey as we share more about what drives our team to provide you with the best.

Anne Leventry
President, PanAmerican Seed

**SUPPLY**
Look no further. Annuals, Perennials, Potted Plants, Cuts, Vegetables, and more - you’ll find a comprehensive product assortment that leads the market in depth and breadth. Driven by our innovative global breeding teams and supported by our expert supply management department, we can be flexible to meet your needs.

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

**QUALITY**
Our breeding team is the best in the industry at creating innovative new products to help you build your business. They also fine-tune our products, adding on-trend colours and performance upgrades. You can count on the best-quality seeds produced from our global breeding.

**AVAILABILITY**
Reliable delivery is key to our business. Our dedicated team works on your orders to make all domestic and international shipments run as smoothly as possible. Our state-of-the-art seed distribution center guarantees fast, efficient order processing and delivery.
You’ll find a dedicated partner in our global sales representatives, customer service teams and technical experts. They maintain close relationships with our customers, sharing expertise, marketing and sales tools, and customised solutions for your growing challenges. You’ll receive 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.

Some varieties are restricted in certain markets. Please contact your PanAmerican Seed Account Manager for varieties available in your region.
NEW YEAR, NEW TOOLS, NEW INSPIRED SOLUTIONS!

This year, we have created more time, cost and labour-saving solutions to help you work better and smarter. Here is a list of new and improved resources you’ll want to take advantage of for the upcoming season. For more details, see the “Inspired Solutions” section we’ve added starting on p. 230.

We are excited to unveil our newly refreshed website where you’ll find more to explore, like:

- Short cuts to quickly access timely news and information.
- Regional recommendations from our experts across the globe.
- Easier product searching that is more user friendly.
- Fast photo library access.
- Enhanced grower scheduling tools.
- Streamlined navigation with greater accessibility.

You’ll also find your favorites from the existing site:

- Culture guides
- Seed storage sheets
- Benchcards
- Consumer POP
- Grower calendar
- Tons of product information

Landscape Products for Professionals
We’ve gathered a collection of products that provide lasting colour and performance for landscaping professionals. See how and why we’ve chosen the varieties that made the list on p. 232.

The NEW So Fast. Grow Fast.™ Program
Keep your benches full and increase sales with these fast-finishing products on p. 234.

Calculated Combos™
You can create your own combo just by using our NEW Calculated Combos tool to put together the ideal genus, season, lighting and soil conditions! See how on p. 236.

Perennial Scheduling Made Easy
Scheduling perennials to bloom when you are ready to ship has gotten easier with the First-Year-Flowering Tool! It has information on dozens of perennials and does the work of planning for you! Get started on p. 237.

Smart Scheduling
Use this estimator to plan the finish times for your Wave® and Kitchen Minis™ crops. Easier scheduling starts on p. 238.

Explore these new tools now!
SEED FORMS

Your order from PanAmerican Seed contains high-quality seed with great performance, so you can be confident in the plants you grow.

RAW
This is seed in its natural form, with no enhancements. Examples include Tomato and Verbena.

DE-TAILED
The “tail” on a seed can interfere with an automatic seed-sowing machine. By removing the tail, the seed has a smoother shape that is easier to handle. Marigolds are de-tailed.

PRIMED
Primed seed has had the germination process started, but it is stopped before the root protrudes through the seed coat; the seed is then dried down. Primed seed has more uniform growth and will germinate under a wide range of conditions. Examples include Pansy and Coreopsis.

AMPLIFIED
Seed that is enhanced through a proprietary process, resulting in faster and more uniform germination compared to non-enhanced seed. An example is Echinacea.

COATED
Seed is enhanced through a proprietary process in which a coating is applied to allow easier handling by the grower and in seeders. This is sometimes referred to as a “film coat” or a “slick coat”. Examples include Beacon Impatiens and Marigolds.

TREATED
Thiram is applied to the seed for disease control and protection against multiple seedborne and soilborne fungi. The seed is sealed, has no shape or size change, and no dust rubs off. An example is Sunflower.

PELLETED
Pelleted seed has been enhanced through a proprietary process where multiple layers of a yellow pelleting material are applied to increase the size and make the seed more spherical. This improves visibility and makes seeder pickup easier. Examples include Petunia and Begonia.

MULTI-SEED PELLET AND MULTI-SPECIES MULTI-PELLET

Multi-Seed Pellet
The seed undergoes a similar process to pelleted but combines multiple seeds in one pellet. An example of this is Alyssum.

Multi-Species Multi-Pellet
The combining of seeds from multiple species into one pellet, essentially providing a pre-formed mixed container in a pellet. An example of this is SimplySalad™.

PRECISION™ MULTI-SEED PELLET
This form is offered when we want to supply a precise number of seeds in a multi-seed pellet. Each seed is pelleted first, then combined with others into a larger pellet. When the multi-seed form is used for multi-species combinations, we can ensure that a precise number of seeds of each variety of the mix is in every PMPL. An example of this would be SimplyHerbs™.
Today, billions of seeds are coated, pelleted, primed and tested before we sell them to you. You can expect reduced shrink, reduced cost and improved yield using these processes.

**PRECISION™ MULTI-PELLETS (PMPL)**
The first-ever professional-quality multi-species and single-species Precision Multi-Pellets are specially formulated to deliver a balanced mix of two or three varieties. TRIaled and tested in the lab and in the greenhouse, they germinate and grow compatibly. All combo components are present at least 90% of the time.

- Single Species Arugula
- Single Species Herb Basil
- Single Species Herb Rosemary
- Single Species Pink Shimmer Cuphea
- Multi-Species
- SimplySalad® Kale Storm Mixture

**AMPLIFIED SEED (AMP)**
Enhanced through a proprietary process for fast, uniform germination.

- Echinacea Artisan

**TREATED NON-CHEMICAL (TRN)**
Seed has been disinfected without the use of fungicides, reducing the seedling pathogens on the seed.

- Salvia

**COATED SEED (CT)**
Film-coated seed ensures better flowability through seeders.

- Alyssum
- Gazania
- Gerbera
- Gomphrena
- Impatiens
- Marigold, African
- Marigold, French
- Zinnia

**CERTIFIED ORGANIC SEED**
Our organic seed is not treated with any chemicals. Contact your distributor for a complete product listing.

**PRIMED SEED (PR)**
Primed seed germinates under a wider range of temperatures and delivers better uniformity.

- Coreopsis
- Pansy
- Papaver
- Phlox
- Rudbeckia
- Verbena
- Verbena Species
- Viola

**MULTI-SEED PELLETS (MPL)**
Eliminates the need to run trays through the seeder multiple times.

- Alyssum Multi-Seed Pellet (7-9 seeds)
- Bacopa Multi-Seed Pellet (4-5 seeds)
- Begonia Multi-Seed Pellet (3-4 seeds)
- Dichondra Multi-Seed Pellet (3-4 seeds)
- Helichrysum Multi-Seed Pellet (3-4 seeds)
- Lobelia Multi-Seed Pellet (6-9 seeds)
- Ornamental Grasses Multi-Seed Pellet (5-9 seeds)
- Ornamental Mint (8-12 seeds)
- Portulaca Multi-Seed Pellet (4-5 seeds)
- SimplyHerbs™ Multi-Seed Pellet (7-12 seeds)
- SimplySalad® Multi-Seed Pellet (6-10 seeds)

**PELLETED SEED (PL)**
Applying a uniform pellet for small seed items improves visibility and makes seeder pick-up easier.

- Angelonia
- Begonia
- Bellis
- Campanula
- Celosia
- Coleus
- Dianthus
- Digitalis
- Exacum
- Heuchera
- Isotoma
- Lisianthus
- Lobelia Species
- Matricaria
- Nemesia
- Pentas
- Petunia
- Petunia, Double
- Plectranthus
- Silene
- Torenia
- Trachelium
- Verbascum
- Cut Flower Snapdragons

**TREATED SEED (TR)**
Uses Thiram for general seedling disease control and Allegiance for protection against downy mildew. Seed is sealed; there is no change in shape/size and no dust or rub-off.

- Sunflower
- Carthamus
WAVE® IS UNSTOPPABLE!

The petunia brand that has its own fan club continues to please crowds and ramp up excitement in home gardeners in early Spring through Summer! The most-asked-for petunia at retail and its signature Wave-brand Pink Packaging get the word out about easy spreading colour for pots, baskets, gardens and landscapes. With an in-your-face new van for delivering Wave plants to consumer events, and a Pink Pot Ambassador program keeping it high on the social media radar, there’s just no stopping Wave!
UNBEATABLE GARDEN PERFORMANCE

For more than 25 years, Wave has been inspiring growers, gardeners and professional landscapers with a continually evolving and improving petunia program. With additional colours and consumer promotions, Wave provides easy spreading colour to home gardens around the world. That’s what makes Wave the brand known, bought and trusted by name.

Wave includes 5 petunia series and 1 pansy series, and boasts over 70 colours and mixes. Known for its wide selection of mixes for versatility in gardens, baskets and containers, Wave provides the variety and performance consumers expect from plants for their garden today!

<table>
<thead>
<tr>
<th>Series</th>
<th>Height</th>
<th>Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock Wave®</td>
<td>7-10 in. (18-25 cm)</td>
<td>20-30 in. (51-76 cm)</td>
</tr>
<tr>
<td>E3 Easy Wave®</td>
<td>6-12 in. (15-30 cm)</td>
<td>25-32 in. (64-81 cm)</td>
</tr>
<tr>
<td>Easy Wave®</td>
<td>6-12 in. (15-30 cm)</td>
<td>30-39 in. (76-99 cm)</td>
</tr>
<tr>
<td>Tidal Wave®</td>
<td>16-22 in. (41-56 cm)</td>
<td>30-60 in. (76-152 cm)</td>
</tr>
<tr>
<td>Original Wave®</td>
<td>5-7 in. (13-18 cm)</td>
<td>36-48 in. (91-122 cm)</td>
</tr>
</tbody>
</table>
Wake up early season sales!

At 10 hours daylength, E3 Easy Wave will be ready to kick off petunia sales even earlier! With a manageable, uniform plant structure and vigour, the series offers simplified production to save on labour costs. The plants can be grown at lower PGR rates than Easy Wave, so we say it’s “Extra Easy” Wave! The plants stay full and lush longer at retail for increased sell-through and the eye-catching appeal consumers expect from the Wave program.

It’s Early, it’s Efficient, it’s the Evolution of Easy Wave… it’s E3!

SPREADING PETUNIA
Petunia x hybrida

E3 Easy Wave® Series F1

- All E3 Easy Wave varieties have a similar, uniform plant structure and vigour, providing simplified plant management.
- Plant holding capabilities across the series mean better quality over a longer time period for an extended sales window.
- E3 Easy Wave fulfills the Wave brand promise of easy spreading colour with superior performance: a manageable spreading habit, long bloom time and high colour volume!
- Mounding, spreading habit is impressive in baskets and planters.
- Recommended in Wave branded packaging: premium 306 packs with handle, 4 to 6-in./10 to 15-cm pots and hanging baskets.

Height: 6 to 12 in./15 to 30 cm
Spread: 25 to 32 in./64 to 81 cm
Flower size: 2.25 to 3 in./6 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

- The best Wave series to fulfill sales earlier in the season.
- Flowers at or under 10 hours daylength.
- E3 Easy Wave offers simplified production, as it can be successfully grown at lower PGR rates than Easy Wave (except Blue).
Blue Requires 10 hours daylength. Most vigorous of the series, so it is recommended to be grown at the Easy Wave PGR rates. Cold durable.

Coral Deep coral-salmon with slight veining. Requires 9.5 hours daylength. Can be produced using the Easy Wave PGR rates or at half the rate. Cold durable.

Pink Mid-true pink colour. Requires 9.5 hours daylength. Can be produced using the Easy Wave PGR rates or at half the rate. Cold durable.

Pink Cosmo Medium pink with deeper pink veins that are more prominent in cooler and lower light conditions. Requires 10 hours daylength. Can be produced using the Easy Wave PGR rates or at half the rate. Cold durable.

Red True deep, vibrant red colour. Requires 9.5 hours daylength. Variety is more receptive to PGRs, so best control is achieved at half the rate of Easy Wave. Cold durable.

Sky Blue Requires 9.5 hours daylength. Flowers will lighten with age and in high light conditions. Can be produced using the Easy Wave PGR rates or at half the rate. Cold durable.

White Pure, clean white. Requires 9 hours daylength. Can be produced using the Easy Wave PGR rates or at half the rate. Cold durable.

Repositioned Yellow Formerly a part of the Easy Wave Series, Yellow now joins E3 Easy Wave, as it flowers at a 10-hour photoperiod, requires less PGRs and holds well to match the series. Cold durable.

Formula Mixture Includes a mixture of all colours in the series.

New Sweet Taffy Mixture Includes Pink Cosmo, Yellow and Rose Morn (not available separately). This sweet mix says “Hello, Spring!” It flowers at 10 hours photoperiod and has a uniform, holding plant habit.
Sweet Taffy Mixture

Formula Mixture

Red
Sky Blue
White
Repositioned Yellow

New
Sweet Taffy Mixture

New
Sweet Taffy Mixture
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

- Versatile Easy Wave offers simplified production, maximized plug yields and the ability to meet every ship date for every colour. It lets you grow specialty mixes, too!
- More mounded with more controlled spread than Wave® varieties.
- Recommended in Wave branded packaging: premium 306 packs with handle, 4 to 6-in./10 to 15-cm pots and hanging baskets.

**New Blue Improved** Plant structure and flowering time are the primary differences compared to original Blue. Improved for a mounded habit, denser branching and flowering in the centre of the plant. Photoperiod is 9.5 hours, making it faster to flower than original Blue. Garden spread and performance match the series. Cold durable.

**Burgundy Star** Pattern is consistent with standard star petunias – some flowers may be more solid or more white.  
**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.  
**Rose Fusion** Mid-rose blooms with deep rose veins. Short-day flowering requirement of 9 hours creates early-season sales opportunities.  
**Beachcomber Mixture** NEW Blue Improved, Coral Reef, Pink Passion.  
**Formula Mixture** NEW Blue Improved, Neon Rose, Pink Passion, Red, Silver, Violet, White.  
**Great Lakes Mixture** NEW Blue Improved, Violet, White.  
**Opposites Attract Mixture** Coral Reef, Violet.  
**Plum Pudding Mixture** Plum Vein, Violet.  
**South Beach Mixture** Coral Reef, Red, Violet.  
**Starfish Mixture** Burgundy Star, White.  
**The Flag Mixture** NEW Blue Improved, Red, White.

**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.

Burgundy Velour
SPREADING PETUNIA continued

Shock Wave® Series F₁

Height: 7 to 10 in./18 to 25 cm
Spread: 20 to 30 in./51 to 76 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 4 to 6-day window.
• Smaller blooms rebound 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.
• Series features a plant structure and shape like E3 Easy Wave.
• 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.

Pink Vein
Spread is 30 to 36 in./76 to 91 cm.

Purple Tie Dye
Variable purple-blue and white bicolor pattern is appealing to consumers. Pattern changes based on temperature, light levels and PGRs used; daminozide use will result in more white showing on the blooms. 10.5-hour daylength required.

White
Pure white variety requires 10.5 hours daylength for best flowering. Cold durable.

Spark Mixture
Denim, Pink Shades, White.

Volt Mixture
Denim, Red, White.

Packed with petite blooms!
You’ve never seen petunia hanging baskets like these - each Shock Wave plant is blanketed with masses of colour from the amazing number of petite, high-impact flowers.
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-spread 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.

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

**Lavender**
Timing is similar to Misty Lilac. All-America Selections Winner, Fleuroselect Gold Medal.

**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 and Misty Lilac. All-America Selections Classic.
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

- Largest and most vigorous of the Wave petunia family, Tidal Wave plants provide super-size colour in big spaces, and are suitable for large city baskets and plantings.
- Excellent landscape performer with terrific recovery from rain. Unlike other petunias, Tidal Waves stay together.
- Recommended in Wave branded packaging: 8-in./20-cm pots.

Big, bold 3D colour!
Extend your season with this strong finisher. Tidal Wave is the “go-to” for pros and home gardeners looking for 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.

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

Cherry

Hot Pink

Purple

Red Velour

Silver

All-America Selections Winner

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

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.

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

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

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. One trip to the garden centre for lush baskets or pots for in-ground planting is enough to convince anyone that Cool Wave is a cool-season gardener’s dream.

Maximize your growing success
Find all you need to grow fantastic Cool Wave pansies in the comprehensive Production Handbook. It’s available in English and Spanish at panamseed.com or ask your preferred distributor for a copy.
ANNUALS
SPOTLIGHT ON STRONG COLOURS

Shining the light on high-performance annuals that bring reliable colour to sunny and shaded locations, our selection is backed by industry-leading seed quality and consistent, deliverable inventory. One of our most popular series, Beacon® Impatiens, is back with more award-winning colours and mixes that offer high resistance to Plasmopara destructor, the cause of Impatiens downy mildew. Find out more on p. 56.
ANGELONIA  •  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.

Mississippi Medallion Award, Dallas Arboretum FlameProof Award, Louisiana Super Plants Award
Mixture Blue, Purple, Rose, White.
Waterfall Mixture Blue, Purple, White.

Your no-pin, 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

- Blue
- Purple
- Rose
- White

Mixture
Waterfall Mixture

22  ANGELONIA  / Request your Product Information Guide for full culture details
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.

**Sky Blue** Colour holds well in high heat/light. Lighter than Serena Blue and distinctive from Serenita Purple. Timing like Raspberry.  
**Mixture** Lavender, Pink, Purple, Raspberry, Rose, Sky Blue, White.

---

**Serenita Series**

- Lavender  
- Purple  
- Raspberry  
- Rose  
- Sky Blue  
- White  
- Mixture

---

Find product & growing info at panamseed.com / ANGELONIA 23
ALTERNANTHERA

Alternanthera brasiliana

Purple Prince

PRO LANDSCAPE PERFORMER

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 plant 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.

CLEAR CRYSTAL® SERIES

Height: 6 to 10 in./15 to 25 cm
Spread: 12 to 14 in./30 to 36 cm
Seed supplied as: Coated, Multi-Seed Pellets
Plug crop time: 4 weeks
Transplant to finish: 4 to 6 weeks

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

EASTER BONNET SERIES

Height: 4 to 10 in./10 to 25 cm
Spread: 10 to 12 in./25 to 30 cm
Seed supplied as: Raw, Coated
Plug crop time: 4 to 5 weeks
Transplant to finish: 5 weeks

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

ANEMONE

See Cut Flowers, page 176.

AQUILEGIA

See Perennials, page 132.

ARMRERIA

See Perennials, page 136.

ASCLEPIAS

See Cut Flowers, page 176.

AURINIA

See Perennials, page 136.
ASPARAGUS  
Asparagus densiflorus ‘Sprengeri’

New FuzzyFern™ Frizz

Height: 24 to 36 in./61 to 91 cm
Spread: 24 to 36 in./61 to 91 cm
Seed supplied as: Raw
Plug crop time: 7 to 9 weeks
Transplant to finish:
14 to 16 weeks, 4-in./10-cm pot, quart/11-cm pot

- Provides a more reliable supply of Asparagus densiflorus ‘Sprengeri’ seed with higher germination.
- Higher germination provides growers with a money-saving option to produce a reliable plug with fewer seeds.
- Frizz brings a fun texture to mixed containers, hanging baskets, indoor applications, and even landscapes in some regions.
- This trailing foliage item can handle both sun and shade plus indoor and outdoor use for more versatility.

Reliable supply, high quality

With a demand for Asparagus densiflorus ‘Sprengeri’ in the market and minimal seed available, we set our sights on improving supply with FuzzyFern Frizz! This asparagus fern saves growers money, space and grief by providing a more reliable supply of seed with higher germination.
**Blutopia®, Pinktopia and Snowtopia®**

- **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.

**Pinktopia**
- Bright pink colour is great for mixed containers and large planters. The leaf size is the same as Snowtopia, but the leaf colour is a brighter green than both Blutopia and Snowtopia.

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

---

**Gryphon Begonia**

- **Height:** 14 to 16 in./35 to 40 cm in shade, 12 to 14 in./30 to 35 cm in partial sun; may grow to 30 in./75 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.
BEGONIA  Begonia interspecific

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.

**New Red Bronze Leaf** A unique compact red on bronze foliage variety.

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

Find product & growing info at panamseed.com / BEGONIA
SPREADING BEGONIA
Begonia interspecific

Hula™ Series F1

Height: 6 to 10 in./15 to 25 cm
Spread: 20 to 27 in./51 to 69 cm
Flower size: 0.5 to 1.5 in./1 to 4 cm
Seed supplied as: Pelleted
Plug crop time: 6 to 8 weeks
Transplant to finish: 5 to 7 weeks for Spring timing

- Hula is a unique spreading type of begonia that is highly branched and covered in flowers.
- Its trailing habit is perfect for baskets and containers.
- Provides an instant performance advantage for landscapers, with masses of flowers showing on top.

- The series is daylength neutral and it is the earliest interspecific begonia to flower, with timing similar to BabyWing®.
- The high number of flowers provides great colour impact.
- Hula starts to spread at an early stage, and, along with early flowering, it provides growers with a high-quality, attractive, salable plant that is covered with blooms at retail, in both hanging baskets and smaller pot sizes.

Bicolor Red White
Features a bicolor pattern that can vary under different conditions.

Blush
This blush-to-white colour is unique for spreading begonias. The blush colour can vary under different conditions.

New Red and White Mixture
Mix of red and white blooms. The white variety has bigger flowers and is whiter than the current blush variety. White is not available separately.

Unique begonias to complete your program!

Hula Spreading Begonia is fast to fill in landscape beds, creating a blanket of high-impact colour! Adding Hula to our portfolio allows us to expand our offering of begonias that look great on the retail bench! Hula also looks amazing in hanging baskets and mixed containers, for an opportunity to offer a more premium product.

Look to PanAmerican Seed for your complete interspecific program, starting with fastest-to-market Hula and BabyWing for day-neutral growing…Megawatt for big Spring sales…and main-season Dragon Wing to perform all Summer long in gardens and professional landscaping.
Bicolor Red White
Blush
Pink
Red

Find product & growing info at panamseed.com / SPREADING BEGONIA
MEGAsize + MEGAcolour = MEGAsales!

This fresh, high-energy begonia option has quickly proven itself in the marketplace with great timing benefits and ultimate garden power. These bigger-than-life hybrids offer amazing colour for gardeners.

- 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.

Pink Green Leaf

A “must-have” colour for retail programs. More uniform than the competition, with similar or earlier timing.

New Red Bronze Leaf Improved

Offers better variety purity, eliminating green-leaf off-types, with deeper bronze foliage colour and improved plant habit with shorter internodes and great basal branching. Earlier to flower, how much earlier depends on daylength conditions.

White Green Leaf

Starts to flower slightly earlier than other series varieties (5 to 10 days), but it is a more true, larger-format type than the competition.
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 landscape 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**

**New Pink Bronze Leaf** Bronze leaf variety with large pink blooms fits the collection for habit and timing.

**New Red Bronze Leaf** Core red colour blooms are paired with bronze foliage, fits the unique collection for plant habit and timing.

**White** Starts flowering around 2 to 12 days earlier than Pink, with a refined, slightly wider habit, great branching and plenty of flowers covering the plant. Flowers can blush in warmer conditions.
**Big, bold begonias**

AmeriHybrid tuberous begonias provide a wide selection of colours, including unique bicollours, along with some of the world’s largest blooms! This exciting collection can be sold at a premium price point at retail, and it results in faster turnover in the market.

- **Lace Apricot**: Apricot blooms with a white edge.
- **Lace Pink**: Pink blooms with a white edge.
- **Lace Red**: Red blooms with a white edge.
- **Sunburst**: Yellow and orange/peach/apricot blooms with a red edge.

**TUBEROUS BEGONIA**

*Begonia x tuberosa*

**AmeriHybrid® Picotee Series F1**

- **Height**: 14 to 20 in./36 to 51 cm
- **Spread**: 10 to 12 in./25 to 30 cm
- **Flower size**: 4 to 8 in./10 to 20 cm
- **Seed supplied as**: Pelleted
- **Plug crop time**: 7 to 8 weeks
- **Transplant to finish**: 11 to 15 weeks

- The AmeriHybrid Picotee varieties have large, 4 to 8-in./10 to 20-cm, bicollour blooms.
- The Picotee Lace types are an inverted variety of a normal picotee; these blooms have light edges on dark-coloured petals.
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 hybridising.
- Each flower has a highly consistent double shape.

New Red A vibrant red joins the series. Flower form varies from ruffled to roseform.

Pink
Red
Yellow
Scarlet Red
Coral Salmon
Apricot
TUBEROUS BEGONIA continued

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.

Melon Lace Melon with a white edge.
Pink Halo White with a deep pink edge.

New Polka Dot Bicolour blooms feature a variable mix of coral and red with white spots and white with a red picotee edge.
Sun Glow Golden yellow with a red edge.
Sunset Shades Yellow with a red edge.
New Surprise A nice mix of white and pink/rose bicolour flowers.
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.

Scarlet Orange  More vigorous, with longer flower stems compared to the rest of the series.
White Pink Picotee  White with a pink edge.
Yellow Red Picotee  Yellow with a red edge.

CAMPANULA  
See Cut Flowers, page 177.
CAPSICUM  
See Potted Plants, page 162.
CAREX  
See ColorGrass, pages 50 and 53.

CARTHAMUS  
See Cut Flowers, page 177.
CATHARANTHUS  
See Vinca.
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:** Pelleted  
**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.

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

**CELOSIA •**

*Celosia plumosa*

**First Flame™ Series**

**Height:** 10 to 14 in./25 to 36 cm  
**Spread:** 10 to 16 in./25 to 41 cm  
**Seed supplied as:** Pelleted  
**Plug crop time:** 3 to 4 weeks  
**Transplant to finish:** 8 to 10 weeks

- Excellent, brightly coloured Summer crop finishes 10 to 14 days earlier than competing varieties to reduce production costs.  
- Branches like a regular *C. plumosa* to produce full blooms.  
- Uniform across all colours for a fuller look in containers.  
- Ideal for Asian and southern markets.  
- Makes a great border plant; also good in containers.

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

**Scarlet** Model for the series features outstanding, bright colour and great habit – fits well with Red and Yellow. Colour holds very well in sun/high light levels.

**Mixture** Red, Yellow, Scarlet.

**Ice Cream Series**

**Height:** 12 in./30 cm  
**Spread:** 10 in./25 cm  
**Seed supplied as:** Pelleted  
**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.

**Salmon** Clear salmon colour on a very good plant habit – one of the models for the Ice Cream series. Good colour for mixes.

**CUT FLOWER CELOSIA**

**Celway Series,** page 180.  
**Neo Series,** page 178.  
**Spring Green,** page 177.  
**Sunday Series,** page 179.
**CELOSIA (FOLIAGE)**

*Celosia argentea*

**Sol™ Collection**

- An attractive late-flowering foliage celosia collection for the market!
- Offers relatively fast production time and no downy mildew issues.

**Gekko Green**

- Height: 10 to 14 in./25 to 36 cm
- Spread: 10 to 16 in./25 to 41 cm
- Seed supplied as: Pelleted
- Plug crop time: 3 to 4 weeks
- Transplant to finish: Spring, 7 to 10 weeks
  - Foliage tends to be more green when kept indoors, and it turns to burgundy when the plant is left outdoors for at least 1 to 2 weeks.

**Lizard Leaf**

- Height: 10 to 14 in./25 to 36 cm
- Spread: 10 to 16 in./25 to 41 cm
- Seed supplied as: Pelleted
- Plug crop time: 3 to 4 weeks
- Transplant to finish: Spring, 7 to 10 weeks
  - Foliage tends to be more green when kept indoors, and it turns a vibrant burgundy-red when the plant is outdoors for at least 1 to 2 weeks.
  - Lizard Leaf’s foliage tends to curl due to genetic factors and can be modified by the climate conditions found in different locations in different degrees, in both indoor and outdoor environments.

**Sun-loving foliage celosia brings colour and texture to containers**

With limited options for attractive foliage plants from seed, growers often turn to coleus to add interest and texture to containers. The Sol™ Collection is a fantastic foliage celosia with relatively fast production time and no downy mildew issues. It holds well at retail and expands the options for consumers looking for sun-loving foliage accent plants for patio planters with a different texture and look, as well as for quick-growing, low, shrub-like plants that look great at the front of the border.
PREMIUM SUN COLEUS
Solenostemon scutellarioide

Showstopping 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.

New Coral Candy

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

• Thin, serrated leaves bring a new look to the Premium Sun collection.
• The mounded, compact plants display foliage with a coral-pink centre that blends to green.
• The range of foliage colours displayed can differ depending on environmental conditions.
• Great for mixes and garden beds.

All-America Selections Winner.

Crimson Gold

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.

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.

Ruby Heart

- Height: 18 to 26 in./46 to 66 cm
- Spread: 18 to 22 in./46 to 56 cm
- Brings a ruby red colour to the collection.
- The thin, chartreuse border on the heart-shaped leaves continues on the undersides and stems, adding brightness.
- Similar greenhouse vigour to Chocolate Mint.
- Similar landscape performance to Crimson Gold.

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.
**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.

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

**Lime Sprite** Can show rose midrib in deepest shade; flowers at the late end of the series, similar to Red.  
**Mosaic** No two leaves are alike.  
**Empire Mixture** Contains all 6 colours.

**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.
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
Height: 12 to 14 in./30 to 36 cm
Spread: 10 to 12 in./25 to 30 cm
Seed supplied as: Raw
Plug crop time: 5 to 6 weeks
Transplant to finish: 7 to 9 weeks
- Low-maintenance, uniform and basal-branching plants are late-flowering, extending their landscape value.
- Mid-sized leaves.
- Great for packs.
- Useful for indoor plant programs.

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

Mosaic
Earliest of the series.
Sunset Bronze.
Select Mixture Coral Sunrise, Jade, Mosaic, Scarlet, Sunset, Velvet Red.

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

*Cosmos bipinnatus*

- **Height:** 20 to 30 in./51 to 76 cm
- **Spread:** 12 to 14 in./30 to 36 cm
- **Seed supplied as:** Raw
- **Plug crop time:** 4 to 5 weeks
- **Transplant to finish:** 6 to 7 weeks

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

**Sonata™ Series**

- 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.

**Complete Mixture** Offers the most complete colour range in *Cosmos bipinnatus*, adding the unique Purple Shades and Red Shades into the mix.

**Mandarin**

*Cosmos sulphureus*

- **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.

**Tropic Series**

*Crossandra infundibuliformis*

- **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.
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.  
- A profusion of petite flowers covers 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.

Sweet Talk™ Series F1

**Cuphea procumbens**

**Height:** 8 to 14 in./20 to 36 cm  
**Spread:** 8 to 14 in./20 to 36 cm  
**Seed supplied as:** Raw  
**Plug crop time:** 4 weeks  
**Transplant to finish:** 8 to 9 weeks

- A new heat-loving cuphea series from PanAmerican Seed!  
- A natural source of nectar, the flowers attract pollinators like bees and hummingbirds.  
- Offers a more refined plant form compared to competitors, with tighter branching and less gaps.  
- A good option for Spring or Summer production, it is more floriferous and less susceptible to oedema.  
- All varieties can be grown with the same PGR schedule.  
- Vivid bloom colours stand out on the bench, and include a true Red.

**New Deep Pink** Features a bold pink colour and the largest landscape size of the series.  
**New Lavender Splash**  
The most compact variety of the series has a balanced purple-to-white bloom ratio.  
**New Red** One of the most eye-catching colours in its class and a favorite of hummingbirds.
**Jolt™ Series F1**

**DIANTHUS**  
*Dianthus barbatus* interspecific

**Height:** 16 to 20 in./41 to 51 cm  
**Spread:** 12 to 14 in./30 to 36 cm  
**Flower size:** 1 in./3 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.
- **Strong dark green foliage.**
- Performs as a semi-hardy annual in Zone 7 (0°F/-18°C minimum temperature) and milder.

2019 Louisiana State University Super Plant  
Pink All-America Selections Winner  
Pink Magic  
Flowers open white, then light pink, and mature to dark pink; optimal colour pattern results from high light and cool night temperatures.

- 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.

**ANNUALS / JOLT**
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 container sizes.
- Well-branched and moderate vigour for fast fill in early Spring and Autumn production. Responds well to PGRs where needed.
- 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:** 8 to 9 weeks
- Very well-branched, upright and strong-stemmed, these excellent landscape and garden performers double as a great backyard cut flower.
- Fast-blooming plants respond well to growth regulators applied for potted plant height and tighter umbels.
- Performs as a perennial in USDA Hardiness Zones 6a to 9b (-10 to 25°F/-23 to -4°C minimum temperature).

**Pink Magic**

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

CUT FLOWER DIANTHUS

**Amazon Series**, page 182.

**Sweet Series**, page 183.

PERENNIAL DIANTHUS

**Rockin' Series**, page 140.
Crowned with huge flower power

These are the biggest blooms of any dianthus of this type, with exceptional flower form and a palette of showstopping colour choices. Coronet adds a regal touch to cool-season landscapes, gardens and patio planters.

SINGLE DIANTHUS

Dianthus chinensis

Coronet™ 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, Coronet’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.

Purple
Times like Cherry with a habit like the solid colours in the series.

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.

White Purple Eye
Sharply contrasting bicolour with the compact size and timing of Strawberry can use half the rate of PGRs needed for the solid colours in the series.

Mixture
Cherry Red, Purple, Rose, Strawberry, White and White Purple Eye. Huge flower size and uniformity make it the best choice in this class of dianthus.
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.

**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.

Find product & growing info at panamseed.com / DIANTHUS
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.
• Each variety contains several shades of that colour.
Mixture Contains 100% semi-double and fully double flowers.

DICHONDRA
Dichondra argentea
Silver Falls
Height: 2 to 3 in./5 to 8 cm in the ground
Spread/Length: 3 to 4 ft./91 cm to 1.2 m; up to 6 ft./1.8 m in areas with a longer growing season
Seed supplied as: Raw
Plug crop time: 5 weeks
Transplant to finish: 6 to 7 weeks
• True cascading habit is excellent for mixed containers or hanging baskets.
• Performs as a low-growing groundcover, but requires well-drained soils.
• Also well-suited to indoor plant programs.
• Very heat and drought tolerant.
• No pinching needed.

DICHONDRA
Dichondra repens
Emerald Falls
Height: 2 to 4 in./5 to 10 cm in the ground
Spread/Length: 36 in./91 cm
Seed supplied as: Multi-Seed Pellets
Plug crop time: 5 to 6 weeks
Transplant to finish: 7 to 8 weeks
• Denser, tighter and shorter than Silver Falls, without pinching or PGRs.
• Medium green leaves are more rounded and held closer to the stem.
• Good for hanging baskets.
• Also performs well as a heat-tolerant, low-growing groundcover.

DIGITALIS
See Perennials, page 139.
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.

ERYSIMUM
Citrone 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.

**Glamour®**
Euphorbia graminea

**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.

GLAillardia
See Perennials, page 144.

**GAURA**
See Perennials, page 145.
Complementary colour
Part of the Fantastic Foliage Collection, ColorGrass® varieties let you grow and sell the broadest range of ornamental grasses from seed! These unique varieties accent landscapes and containers with height, colour and texture.

<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>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Isolepis Live Wire</em></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 resemble 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><em>Luzula Lucius</em></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>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>
</tbody>
</table>

*3 plants per pot

All ColorGrass varieties are supplied as multi-seed pellets.
**Variety/Exposure** | **Colour group** | **Height** | **Spread** | **USDA Zones** | **Containers** | **Plug crop time (weeks)** | **Transplant to finish (weeks)** | **Features** |
---|---|---|---|---|---|---|---|---|
Juncus Starhead  
*J. ensifolius*  
Anemanthele Sirocco  
*A. lessoniana*  
Festuca Festina  
*F. cinerea (F. glauca)* | Green  
Green/Brown  
Green  
Green | 8-10 in./20-25 cm  
12-14 in./30-36 cm  
12-18 in./30-46 cm | 8-10 in./20-25 cm  
22-24 in./56-61 cm  
10-15 in./25-38 cm | 4-10  
7-10  
4 in./10 cm, 6 in./15 cm*, Gallon | 4 in./10 cm, 6 in./15 cm*, Gallon  
6 in./15 cm* | 6-7  
7-10  
5-6 | 6-7  
6-8 | Compact variety displays green, broad-leaved foliage and long-lasting, dark green star inflorescences.  
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.  
Very cold-hardy variety produces dense, compact tufts of blue-green, with small, upright brown plumes from Summer to Autumn. |
### GRASSES

#### MEDIUM HABIT (8 to 18 in./20 to 46 cm)

<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>
</table>
| **Juncus Blue Dart**  
*J. tenuis* | Green | 14-16 in./36-41 cm | 10-12 in./25-30 cm | 4-10 | 4 in./10 cm, 6 in./15 cm*, Gallon | 6-7 | 7-8 | Linear blue foliage adds texture to small containers and in-ground planting. Strong vertical habit – faster, more reliable alternative to spike dracaena. Easy-care and adaptable to a wider range of conditions, including standing water and drought. Attractive indoor or water plant. Great retail shelf life. |
| **Juncus Twister**  
*J. effusus spiralis* | Green | 12-14 in./30-36 cm | 12-14 in./30-36 cm | 5-9 | 4 in./10 cm, 6 in./15 cm*, Gallon | 7-8 | 6-7 | Unusual juncus is economical and easy to grow – a fun addition to mixed containers. Shoppers love the small, curly green leaves of this upright plant. Can be grown as a “mini” for expanded sales opportunities. Also thrives in wet conditions, making it a useful pond plant. |

#### TALL HABIT (18 in./46 cm and taller)

<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>
</table>
| **Stipa Pony Tails**  
*S. tenuissima*  
(Mexican Feather Grass) | Green | 16-24 in./41-61 cm | 24 in./61 cm | 6-10 | 4 in./10 cm, 6 in./15 cm*, Gallon | 5-6 | 7-10 | Upright grass has fine, needlelike green foliage, with silky green flowers in July that mature to golden blonde. |

*3 plants per pot  
All ColorGrass varieties are supplied as multi-seed pellets.
<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>Carex Phoenix Green C. comans (Leatherleaf Sedge)</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-leaved sedge has bright green foliage. Good heat tolerance. Easy-care for accent in landscapes, planters.</td>
</tr>
<tr>
<td>Carex Red Rooster C. buchananii</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 J. inflexus</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>5-7</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 and drought-tolerant when grown in-ground. Also makes a great indoor plant.</td>
</tr>
<tr>
<td>Juncus Javelin J. pallidus</td>
<td>Green</td>
<td>48 in./122 cm</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>
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 more robust 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.

Bright Mixture: Bronze Shades, Yellow, Clear Orange, Pink Shades.
Tiger Mixture: Red Stripe and Rose Stripe.
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

GOMPHRENA
Gomphrena pulchella
Fireworks
Height: 36 to 48 in./91 to 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, and stays compact as a plug.
• Well-suited to high-margin gallon programs; suitable for field or garden cut flower production.
Mississippi Medallion Award

GOMPHRENA
Also see Cut Flowers, page 184.
JUNCUS
See ColorGrass, page 51.
LAVANDULA
See Perennials, page 147.
LIMONIUM (STATICE)
QIS Series,
See Cut Flowers, page 185.
**IMPATIENS**
*Impatiens walleriana*

**Beacon® Series F1**

- Height: 14 to 18 in./36 to 46 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: Coated
- Plug crop time: 4 to 5 weeks
- Transplant to finish: 3 to 4 weeks

- Beacon impatiens exhibits high resistance to the widely prevalent populations of *Plasmopara destructor*, which cause Impatiens downy mildew (IDM).
- Beacon impatiens offers the opportunity to bring back into production a well-known, in-demand, easy-to-grow and versatile product for increased sales.
- Extensive trialing has proven that Beacon impatiens provides genetic high resistance to IDM. Beacon is not immune to IDM; there are scenarios where preventative IDM fungicides may be recommended.
- With a plant structure, flowering time, flower size and crop culture that is similar to Super Elfin, Beacon impatiens is easy to incorporate into production planning.
- Fast-filling, season-long colour for gardens and landscapes.

**HOT NEW COLOURS JOIN THE DISEASE-RESISTANT SERIES**

Announcing a popular colour addition for the Beacon Series, **NEW Lipstick**, along with bold **NEW Pearl Island Mixture**, a 3-colour mix named after a well-known lighthouse in Nova Scotia, Canada, where Impatiens downy mildew has been a significant problem. This mix joins the three mixes introduced in 2023, expanding the versatile series with **high resistance** to the widely prevalent populations of *Plasmopara destructor*, the cause of Impatiens downy mildew. These impatiens are suitable for packs, pots, hanging baskets and in-ground beds.

Beacon Impatiens will continue to help “shine the light” on lesser-known diseases by **supporting a different charitable organisation** each year with a percentage of sales. Visit [beaconimpatiens.com](http://beaconimpatiens.com) for more details.

**Lipstick** US 11,166,424; US 10,285,362; EU PAF

**HOT NEW COLOURS JOIN THE DISEASE-RESISTANT SERIES**

Announcing a popular colour addition for the Beacon Series, **NEW Lipstick**, along with bold **NEW Pearl Island Mixture**, a 3-colour mix named after a well-known lighthouse in Nova Scotia, Canada, where Impatiens downy mildew has been a significant problem. This mix joins the three mixes introduced in 2023, expanding the versatile series with **high resistance** to the widely prevalent populations of *Plasmopara destructor*, the cause of Impatiens downy mildew. These impatiens are suitable for packs, pots, hanging baskets and in-ground beds.

Beacon Impatiens will continue to help “shine the light” on lesser-known diseases by **supporting a different charitable organisation** each year with a percentage of sales. Visit [beaconimpatiens.com](http://beaconimpatiens.com) for more details.
Bright Red A warm-toned red on upright mounded, moderately vigorous plants with mid-green foliage.
Coral Coral-pink flowers on mid-vigour, mounded plants with bright green foliage.
New Lipstick A high-demand, strong colour that is deeper and redder than Rose with a similar flowering time.
Orange A bright, clean orange on moderate-vigour, upright mounded plants with bright green foliage.
Rose Well-branched, medium-vigour plants with clear rose flowers.
Salmon A warm salmon-orange flower on mid-vigour, mounded plants with bright green foliage.
Violet Shades Shades of bright violet and burgundy-violet on moderate-vigour, upright mounded plants with mid-green foliage.
White Pure white flowers on moderately vigorous, upright mounded plants with mid-green foliage.
New Formula Mixture Improved Includes all colours.
Lindau Mixture Orange, White and Violet Shades.
New Pearl Island Mixture Limited introduction. Includes Coral, White and Blue Pearl (not available separately). Named for Pearl Island Lighthouse, Nova Scotia, Canada.
Portland Mixture Rose, Violet Shades and White.
Sanibel Mixture Bright Red, Orange and Violet Shades.

Find product & growing info at panamseed.com / IMPATIENS 57
NEW

Lipstick US 11,166,424; US 10,285,362; EU PAF

Salmon US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice.
Medal of Excellence Reader’s Choice

Coral, White and Rose
Beacon Orange (L) outperforms competing and susceptible varieties (M & R) at the 2019 Inoculation Trial

Formula Mixture Improved
US 10,285,362; US 11,166,424; EU PAF

Bright Red
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Coral
US 11,166,424; US 10,285,362; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Orange
US 11,166,424; US 10,285,362; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Salmon
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Violet Shades
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

White
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Lipstick
US 11,166,424; US 10,285,362; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Rose
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Violet Shades
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Coral
US 11,166,424; US 10,285,362; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Lipstick
US 10,285,362; US 11,166,424; EU PAF
Medal of Excellence Industry’s Choice, Medal of Excellence Reader’s Choice

Find product & growing info at panamseed.com / IMPATIENS 59
**Interspecific Impatiens**

**Impatiens hybrida**

**Solarscape™ Series F1**

- **Height:** 9 to 11 in./23 to 28 cm
- **Spread:** 15 to 20 in./38 to 51 cm
- **Flower size:** 2.5 to 2.75 in./6 to 7 cm
- **Seed supplied as:** Raw
- **Plug crop time:** (288) 4 to 5 weeks, (128) 5 to 6 weeks
- **Transplant to finish:** 7 to 10 weeks
- **Available in North America only.**

- Great low-maintenance plant provides high-impact colour in full-sun spaces, whether in the ground or in containers.
- The first interspecific impatiens series from seed offers growers the flexibility of an input that is available all year round, making scheduling a breeze.
- Seed-propagated Solarscape provides the same garden performance as vegetative interspecific impatiens without the royalties! Perfect for opening-price-point, non-branded programs at retail.
- Offers landscape growers a non-branded, cost-efficient alternative.
- Blooms have tropical appeal, with a satiny texture in vibrant, glowing hues.

**Magenta Bliss** Features a vibrant, warm magenta/violet-purple colour on uniform plants with green foliage.

**Orange Burst** Deep coral-orange flowers with some shading to a light salmon-orange.

**White Shimmer** Shimmering white flowers may have a small percentage of pink at the centre and very pale, blush pink buds and petals.

---

*PanAmerican Seed.*
Impatiens landscapers love

Solarscape seed-propagated interspecific impatiens provides unbeatable colour in full-sun garden beds and containers. Durable Solarscape performs just like vegetative varieties with the flexibility of seed. Landscape growers will appreciate this option to fulfill non-branded needs that grow strong in the sun!

Magenta Bliss

Orange Burst

White Shimmer

Solarscape™ XL Salmon Glow F1

**Height:** 11 to 13 in./28 to 33 cm  
**Spread:** 18 to 20 in./46 to 51 cm  
**Flower size:** 2.5 to 2.75 in./6 to 7 cm  

**Seed supplied as:** Raw  
**Plug crop time:** (288) 4 to 5 weeks, (128) 5 to 6 weeks  
**Transplant to finish:** 7 to 10 weeks  

Available in North America only.

- Flowers start out a bright salmon colour with shading to lighter salmon-coral.  
- XL plant height averages about 20% larger than standard Solarscape.

Find product & growing info at panamseed.com / IMPATIENS
**Florida Blue 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.  
**Can Can Series**, page 185.  
**Flare Series**, page 185.

**Potted Plant Lisianthus**

**Sapphire Series**, page 172.

---

**Crystal Palace Lobelia**

**Regatta Lilac Lobelia**
**Regatta Midnight Blue Lobelia**

**BEDDING LISIANTHUS**

**COMPACT LOBELIA**

**Florida Series F₁**
- **Height:** 5 in./13 cm
- **Spread:** 6 to 8 in./15 to 20 cm
- **Seed supplied as:** Raw, Multi-Seed Pellets
- **Plug crop time:** 4 to 5 weeks
- **Transplant to finish:** 8 to 9 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 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

- Dark blue flowers and bronze foliage.
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.
- Ball-shaped plants stay compact and mounded, making them perfect for beds, borders, containers and colour bowls.

PERENNIAL LOBELIA
Starship Series, page 152.

LOBULARIA
See Alyssum.

LUZULA
See ColorGrass, page 50.
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 5 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.

Yellow  
Gold  
Orange  
Yellow Mixture
AFRICAN (AMERICAN) MARIGOLD continued

Marvel II™ Series F1

**Height:** 16 to 18 in./41 to 46 cm  
**Spread:** 10 to 12 in./25 to 30 cm  
**Flower size:** 3 to 3.5 in./8 to 9 cm  

**Seed supplied as:** Coated, De-tailed  
**Plug crop time:** 3 weeks  
**Transplant to finish:** Spring 5 to 6 weeks, Summer 7 to 8 weeks

- This intermediate-type African marigold offers improved branching, earliness, flower size and a brighter flower colour.  
- Series is uniform under both short and long days.  
- Performance-tested durability; sturdy stems hold up in shipping and poor weather.
**FRENCH MARIGOLD**  
*Tagetes patula*

**DWARF CRESTED FRENCH MARIGOLD**

**Bonanza™ Series**

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

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

**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.

---

**BEE**

**Bolero** US PVP 201800074

**Deep Orange** US PVP 201800517  
Fleuroselect Novelty

**Bee**  
Mahogany with yellow edging.

**Bolero** Attractive bicolour.

**Harmony** Bronze with gold center.

**Gold**

**Mixture**

**Flame**

**Harmony**

**Yellow**

**Bonanza Series**
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 markets or for late-season sales further 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 & Strawberry Blonde**

**Fireball**

- **Height:** 10 to 12 in./25 to 30 cm  
- **Spread:** 6 to 8 in./15 to 20 cm  
- **Flower size:** 2.5 in./6 cm  
- **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:** Premium packs, 3 to 4 weeks; Quarts or multi-plants in larger pots, 4 to 6 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.

**Flamenco**

- **Height:** 10 to 12 in./25 to 30 cm  
- **Spread:** 6 to 8 in./15 to 20 cm  
- **Flower size:** 2 to 3 in./5 to 8 cm  
- **Seed supplied as:** Coated, De-tailed  
- **Plug crop time:** 3 to 4 weeks  
- **Transplant to finish:** 3 to 4 weeks (cell pack); 4 to 5 weeks (quart, 4 in./10 cm)

- With its yellow centre and 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.
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, De-tailed
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.

Mixture US 9,320,212; US 9,326,464; US 9,326,465; US 9,326,466; US 9,326,467; US 9,326,468
Flame US 9,326,468
Gold US 9,326,212
Harmony US 9,326,464
Orange US 9,326,467
Spry US 9,326,466
Yellow US 9,326,465
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 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 colors.
- Produces uniformly shaped, extra-large, 2 to 2.5-in./5 to 5.5-cm flowers atop bushy plants.

**Bee**  
Mahogany edged with yellow.

**Bolero**  
Golden yellow flower petals tipped with red.

**Flame**  
Mahogany edged with orange.

**Outback Mixture**  
Bolero, Red, Tangerine, Yellow. Very uniform for timing, habit and flower size.

**MATRICARIA**  
See Cut Flowers, page 188.
NEMESIA

**Nemesia foetans**

*Poetry™ Series F1*

- **Height:** 12 to 14 in./30 to 36 cm
- **Spread:** 10 to 12 in./25 to 30 cm
- **Seed supplied as:** Pelleted
- **Plug crop time:** 4 weeks
- **Transplant to finish:** 5 to 7 weeks

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

**NOTE:** It is recommended to sow 4 pellets per cell.

---

**NEMESIA**

*Nemesia strumosa*

**Sundrops Mixture**

- **Height:** 10 in./25 cm
- **Spread:** 8 to 10 in./20 to 25 cm
- **Seed supplied as:** Raw
- **Plug crop time:** 4 weeks
- **Transplant to finish:** 8 weeks

- Diverse colour range - gold, rose, red shades and white - in a wide array of patterns.
- Early-blooming, compact plants are ideal for small containers.
- Useful as a cool-season crop to accompany Spring pansies.
- Timing fits into the cineraria/calceolaria crop time.

---

**ORNAMENTAL MINT**

*Mentha requienii*

**Mini Mint**

- **Height:** 1 to 2 in./3 to 5 cm
- **Spread:** 6 to 12 in./15 to 30 cm
- **Seed supplied as:** Multi-Seed Pellets
- **Plug crop time:** 2 to 3 weeks
- **Transplant to finish:** 3 to 4 weeks

- 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.
- Healthier, more uniform plants make great-looking 4-in./10-cm pots, mix components and garden specimens. Can also be marketed as a lawn replacement.

**NOTE:** Leaves are non-toxic but do not have a palatable flavour.

---

**ORNAMENTAL OREGANO**

*Origanum x hybrida*

**Kirigami**

- **Height:** 8 to 10 in./20 to 25 cm
- **Spread:** 12 to 14 in./30 to 36 cm
- **Seed supplied as:** Raw
- **Plug crop time:** 5 to 6 weeks
- **Transplant to finish:** 9 to 11 weeks

- The perfect patio plant, this 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, moundied, 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.
Jester F1
Height: 36 to 48 in./91 to 122 cm
Spread: 10 to 14 in./25 to 36 cm
Seed supplied as: Raw
Plug crop time: 2 to 3 weeks
Transplant to finish: 4 to 5 weeks (green)
• Young leaves are chartreuse with a subtle burgundy overlay; mature foliage becomes dominantly burgundy especially in full sun. Plants end the season with nearly the same bronze-purple colour as Purple Majesty.
• Jester flowers 7 to 10 days later than Purple Baron and Purple Majesty, and stays compact longer.
• Best grown warm.

Purple 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.

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 colour for the only ornamental millet seed assortment on the market. Copper Prince begins as a light caramel colour, deepening to copper as it sends up rosy, foxtail-type panicles.
• Rose-bronze panicles add late Summer interest.
• Wide blades and excellent tillering plus height and spread like Jade Princess make this variety perfect for large containers and landscapes.

Jade Princess F1
Height: 24 to 30 in./61 to 76 cm
Spread: 18 to 24 in./46 to 61 cm
Seed supplied as: Raw
Plug crop time: 2 to 3 weeks
Transplant to finish: 4 to 5 weeks (green)
• Intense chartreuse foliage and rich brown, pollenless panicles have a controlled, mounded shape that is more compact than others in the assortment, so plants ship well.
• Economical grower option – seed can be direct-sown into finish containers, plants are well-suited to pot sizes up to gallons, and the crop finishes fast.
• Great tillering, leading to a bushy plant habit that’s perfect for large containers and landscapes.

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

Jester

Purple Majesty
All-America Selections Winner

Find product & growing info at panamseed.com / ORNAMENTAL MILLET
OSTEOSPERMUM
Osteospermum Ecklonis

**Akila Series F₁**

**Height:** 10 to 14 in./25 to 36 cm  
**Spread:** 14 to 20 in./36 to 51 cm  
**Flower size:** 2 to 3 in./5 to 8 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.  
**Sunset Shades** 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.

**ORNAMENTAL MINT**  
See page 72.

**ORNAMENTAL OREGANO**  
See page 72.

**ORNAMENTAL PEPPER**  
See page 83.  
Also see Potted Plants, page 162.
PANSY
Viola x wittrockiana

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.
• Panola XP 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.

XP Citrus Mixture
XP Deep Orange, XP White, XP Yellow.
XP Clear Mixture Includes all clear Panola XP colours.
XP Mixture All Panola XP colours.

True Blue and Yellow

Find product & growing info at panamseed.com / PANSY 73
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. It’s 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.
Blotch Mixture Blue Blotch, Blue Wing, Red Blotch, White Blotch and Yellow Blotch.
Clear Mixture All the clear varieties.
Daffodil Mixture Deep Orange, Lemon, Yellow, White.
Tricolor Mixture Blue, Lemon, Purple.
Make your life easier

Matrix is your best option for longer days and warmer growing. Its uniformity of timing and plant habit simply can’t be beaten 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.

Matrix® Series F1

- Height: 8 in./20 cm
- Spread: 8 to 10 in./20 to 25 cm
- Flower size: 3.5 in./9 cm
- Seed supplied as: Raw, Primed
- Plug crop time: 5 weeks
- Transplant to finish: Spring 6 to 8 weeks, Autumn 4 to 6 weeks

- Matrix offers less handling, less waste and exceptional holding power for higher profitability.
- 7-day bloom window across all colours in Autumn production makes scheduling and growing easy.
- Extra-large flowers hold up to the heat and PGR stress in Summer/Autumn production.
- Low-maintenance series gives pro landscapers the best choice for uniform colour striping, plus the most flowers per plant of any large-flowered pansy.

Beaconsfield
Largest flowers of this type on the market.

Midnight Glow
Features 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.

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

Matrix mixtures

- Autumn Blaze Mixture
  - Red Blotch, Red Wing, Yellow, Yellow Blotch.
- Blotch Mixture
- Citrus Mixture
  - Orange, White, Yellow and Spring Matrix Lemon.
- Clear Mixture
  - Light Blue, Orange, Purple, Rose, Yellow, White and Spring Matrix Lemon.
- Coastal Sunrise Mixture
  - Ocean, Rose Blotch, Sunrise.
- Ocean Breeze Mixture
  - Deep Blue Blotch, Ocean, White Blotch.
- Raspberry Sundae Mixture
  - Rose Wing, Rose, White Blotch.
ANNUALS / MATRIX

Request your Product Information Guide for full culture details

Coastal Sunrise Mixture

Clear Mixture

Citrus Mixture

Blotch Mixture

Autumn Blaze Mixture

Coastal Sunrise Mixture

Ocean Breeze Mixture

Raspberry Sundae Mixture

Mixture
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.  
- **Raspberry** Shades of white with rose cap/edge.  
- **Mixture** Also includes Lavender Shades (not available separately).
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 and a 1-week bloom window, Lucky Star maintains a consistent show of colour from retail through end-of-season.
• Follow-up blooms do not eclipse the prior flush, so plants stay compact, tight and ready for sale at retail with minimal work.

Violet

Faster secondary, follow-up blooming and a darker colour intensity than other violet pentas on the market.

Stays in colour... Really!

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

PENTAS

Pentas lanceolata

Lucky Star® Series F1

Height: 12 to 16 in./30 to 41 cm
Spread: 12 to 14 in./30 to 36 cm
Seed supplied as: Pelleted
Plug crop time: 6 to 7 weeks
Transplant to finish: 7 to 8 weeks

• With the fastest follow-up blooming of any full colour series pentas on the market and a 1-week bloom window, Lucky Star maintains a consistent show of colour from retail through end-of-season.
• Follow-up blooms do not eclipse the prior flush, so plants stay compact, tight and ready for sale at retail with minimal work.

Violet

Faster secondary, follow-up blooming and a darker colour intensity than other violet pentas on the market.
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™ 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 7 weeks  
Transplant to finish: 8 to 10 weeks

- A sure winner! Combines a unique look for pentas, while still offering the heat/humidity performance this class is known for.  
- Distinctive, patented star pattern combines easily with other varieties, adding an exciting component for 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.

**Red Star**  
Distinctive combination of red and white with a star pattern that is great for Summer patio pots and combinations. Complements Glitterati Purple Star, which was introduced in 2018.
ORNAMENTAL PEPPER  
*Capsicum annuum*

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

**Black Pearl**

**Height:** 14 to 18 in./36 to 46 cm; may grow to 3 ft./91 cm or more in warmer areas with longer growing seasons
**Spread:** 12 to 16 in./30 to 41 cm

**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.

**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.

**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.

**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.

**NOTE:** Fruit is hot.

**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.
PETCHOA  
Petunia sp. x Calibrachoa sp.

**New Caliburst™ Yellow F**

**Height:** 6 to 10 in./15 to 25 cm  
**Spread:** 20 to 28 in./51 to 71 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

**Available in North America only.**

- The first petchoa from seed! Caliburst takes the best colours from calibrachoa and delivers them in the habit, flower size and product form of petunias.  
- Vibrant yellow flower colour looks exceptional in any season.  
- Controlled habit is perfect for quarts (13 cm), gallons (17 cm) and baskets (23 cm+).  
- Fantastic for mixed combos with both seed and vegetative components.  
- Day neutral flowering with a 9-hour daylength response.  
- Cold durability like Wave petunias; it can be successfully produced in early Spring.
Petunia Power + Cool Calibrachoa Colours = Extraordinary Success!

PanAmerican Seed is excited to introduce Caliburst, the first petchoa from seed! With the vibrant colours from calibrachoas, the cold-durable production and short daylength requirements of E3 Easy Wave petunias, and the ease of seed, it’s the perfect formula for excellent Spring and Summer sales! Caliburst performs like a vegetative variety, with the flexibility of seed. With its controlled, manageable habit, it’s the coolest for combos and containers.
PETUNIA  
Petunia x hybrid

GRANDIFLORA
SINGLE PETUNIA

Dreams™ Series F1
Height: 10 to 15 in./25 to 38 cm
Spread: 10 to 12 in./25 to 30 cm
Flower size: 3.25 to 3.5 in./8 to 9 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.

Patriot Mixture
Red, White, Midnight.

Waterfall Mixture
Midnight, Sky Blue, 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!
GRANDIFLORA
SINGLE PETUNIA

Sophistica® Series F₁

The designer Sophistica Collection combines 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.

**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

- Abundant grandiflora blooms.
- Plants are well-matched for timing for easier scheduling and shipping.
- Mounded, upright habit is ideal for premium pots and larger containers.

**Blackberry** Shimmering black with some reddish-purple undertones; yellow breaks may appear under cold growing regimes combined with B-Nine.

**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.

**Lime Green** Yellow with underlying lime tone is a very solid, saturated colour with no veining or fading like traditional yellow petunias.

---

Antique Shades US 7,642,436; EU PAF

Blackberry US 7,642,436; EU PAF

Blue Morn

Lime Bicolor US 7,642,436; EU PAF

Lime Green US 7,642,436; EU PAF

Sophistica Lime Bicolor, Antique Shades & Lime Green

---

PanAmerican Seed.
GRANDIFLORA
SINGLE PETUNIA

**Daddy® Series F1**

- Height: 10 to 15 in./25 to 38 cm
- Spread: 10 to 12 in./25 to 30 cm
- Flower size: 4 in./10 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.

**Sugar**
- Light orchid; deep purple veins.

**Supercascade Series F1**

- Height: 10 to 15 in./25 to 38 cm
- Spread: 10 to 12 in./25 to 30 cm
- Flower size: 4 in./10 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.

**Supercascade Blue**

**Supercascade Burgundy**

**Supercascade Pink**

**Supercascade Red**

**Supercascade Rose**

**Supercascade White**

**Supercascade Mixture**

Find product & growing info at panamseed.com / PETUNIA
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 F**

Height: 6 to 10 in./15 to 25 cm
Spread: 8 to 12 in./20 to 30 cm
Flower size: 3.25 to 3.5 in./8 to 9 cm
Seed supplied as: Pelleted
Plug crop time: 4 to 5 weeks
Transplant to finish: 5 to 6 weeks

**Ez Rider Violet**
This popular colour expands the compact series.

**Ez Rider Mixture Improved**
A mix of all colours in the series, including NEW Violet.

**Ez Rider Deep Salmon**

**Ez Rider Red**

**Ez Rider Rose**

**Ez Rider White**

**Lo Rider™ Multiflora Series F**

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

**Lo Rider Blue**
**Lo Rider Pink**
**Lo Rider Rose**
**Lo Rider Deep Pink**
**Lo Rider Mixture**
**Lo Rider Violet**
**Lo Rider White**

**Lo Rider Mixture**
**Lo Rider Deep Salmon**
**Lo Rider Red**
**Lo Rider Violet**
**Lo Rider Pink**
**Lo Rider Rose**
**Lo Rider White**

ANNUALS / EZ RIDER

Request your Product Information Guide for full culture details
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
Flower size: 3.25 to 3.5 in./8 to 9 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
Flower size: 2.75 to 3 in./7 to 8 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: Pelleted
Plug crop time: 4 to 5 weeks
Transplant to finish: 4 to 5 weeks

Select colours are 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.
FLORIBUNDA PETUNIA

Madness® Series F1

Height: 10 to 15 in./25 to 38 cm
Spread: 10 to 12 in./25 to 30 cm
Flower size: 3 in./8 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.
- Just Madness Mixture
  Six veined colours.
- Merlot Madness Mixture
  Burgundy, Deep Rose, Orchid, Pink, White.
- Madness Old Glory Mixture
  Red, White, Midnight.
- Total Madness Mixture
  Bright mix of 14 colours.
- Waterfall Madness Mixture
  Beautiful blue-toned mix includes Lilac, Magenta, Midnight and White.

White
Deep Rose
DOUBLE PETUNIA  
Petunia x hybrida

MULTIFLORA DOUBLE PETUNIA

Duo Series F:
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.

Duo Mixture

Duo Blue  
Duo Rose

Duo Burgundy  
Duo Rose and White

Duo Lavender  
Duo Salmon

ANNUALS / DUO  
Request your Product Information Guide for full culture details
**GLORIOUS MIXTURE F1**

- **Height:** 10 to 15 in./25 to 38 cm
- **Spread:** 10 to 12 in./25 to 30 cm
- **Seed supplied as:** Raw, Pelleted
- **Plug crop time:** 4 to 5 weeks
- **Transplant to finish:** 6 to 7 weeks
- **•** Bright mix of solids and bicolours.

---

**PIROUETTE ROSE 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, double fringed flowers in distinctive bicolour picotee patterns.

---

**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.

**Valentine**

- Beautiful red blooms can have splashes of white appear on some of the tips. Smaller flowers than the rest of the series.

**Mixture**

- Includes Valentine.
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
Flower size: 3 in./8 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.

 请求产品信息指南以获取详细栽培信息
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.

Mixture

Blue
Crimson
Pink
Scarlet
White
**PLECTRANTHUS**

**Plectranthus argentatus**

**Silver Shield**

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

*Seed supplied as:* Pelleted

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

- Robust, vigorous and 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.

**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:* 15 to 17 weeks

- Unique breeding delivers a natural “English Primrose” look in a professional-quality product.
- Long-flowering, mid-size blooms and deep green foliage are produced on compact, mounded plants.
- Contains a small percentage of smaller, white-flowered plants.
- Programmable crop can be grown pot-tight in 3.5-in./9-cm programs.

**POPPY**

See *Papaver* in Perennials, page 153.
**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.
PURSLANE
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, containers and groundcover.
• Requires little or no PGRs, no pinching.
• Colourful buds develop into 2-in./5-cm blooms.
• Heat loving and drought tolerant.

NOTE: We recommend sowing 4 seeds per cell.
Reintroduction Fuchsia
High-quality seed with good germination.

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.

RUELLIA
Ruellia brittoniana (Ruellia tweediana)

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.

PERENNIAL RUDBECKIA
See page 155.
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.

Mixture  
Banana, Coconut, Deep Red, Fuchsia, Lemon, Orange, Rosita and a scarlet not available separately.

Pink Passion Mixture  
Rosita, Peppermint, Fuchsia.

Tropical Mixture  
Deep Red, Orange, Banana.

TRAILING PORTULACA  
Portulaca grandiflora

Happy Trails™ Mixture 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 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.
- Delivers brilliant colours and fantastic spread in the garden.
SALVIA INTERSPECIFIC
Salvia 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.

SALVIA
Salvia canariensis

Lancelot

Height: 36 to 42 in./91 to 107 cm
Spread: 24 to 30 in./61 to 76 cm
Seed supplied as: Raw
Plug crop time: 4 to 5 weeks
Transplant to finish: 5 to 6 weeks, foliage only

- A unique plant for the border.
- Produces silvery-white, felted leaves plus lavender flowers in July, with rosy-lavender bracts and a pleasant sage fragrance.
- A water-wise plant and a great pollinator plant, attracting hummingbirds, bees and butterflies.
SALVIA Salvia splendens

**Lighthouse Series**
- **Height:** 24 in./61 cm
- **Spread:** 10 in./25 cm
- **Seed supplied as:** Raw
- **Plug crop time:** 4 to 5 weeks
- **Transplant to finish:** 4 to 5 weeks
  - Tall, bushy plants display long-lasting colour.
  - Heat resistant and ideal for low-maintenance landscaping use.
  - Also good in large patio containers.

**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
  - Excellent bright colour at finish.
  - 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.

**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

**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 157.
- **Salvatore Blue**, page 156.

SCABIOSA
See **Perennials**, page 157.

SILENE
See **Perennials**, page 157.
**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.

**Colors:**
- Burgundy
- Orange
- Pink
- Purple
- Red
- Rose
- White
- Yellow
- Burgundy Bicolor
- Coral Bicolor
- Red Bicolor
- Mixture
GARDEN/CUT FLOWER SNAPDRAGON

Rocket Series F1

- Height: 30 to 36 in./76 to 91 cm
- Spread: 16 to 18 in./41 to 46 cm
- Seed supplied as: Raw
- Plug crop time: 5 to 6 weeks
- Transplant to finish: 13 to 16 weeks

- 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 home garden series and as a garden cut flower.
- Group 3-4 flowering snapdragon.

CUT FLOWER SNAPDRAGON

New Centum Series, page 194.
Cool Series, page 199.
Early Potomac Series, page 196.
Maryland Series, page 195.
Monaco Series, page 198.
Potomac Series, page 196.

Mixture

Pink, All-America Selections Winner

Bronze, All-America Selections Winner

Golden, All-America Selections Winner

Red, All-America Selections Winner

White, All-America Selections Winner

Rose Shades, All-America Selections Winner
**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 Mixture**

- 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 variety 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.
- Performs cool growing conditions; no vernalisation needed.

**THUNBERGIA**
Thunbergia alata

**Susie™ Series**

- Height: 72 to 96 in./183 to 244 cm
- Seed supplied as: Raw
- Plug crop time: 4 to 5 weeks
- Transplant to finish: 4 to 5 weeks

- Distinctive flowering vine offers 3 "black-eyed" varieties and 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.

**STATICE**
See Limonium.

**STIPA**
See ColorGrass, page 52.

**CUT FLOWER STOCK**
(MATTHIOLA)

**Aida Series**, page 188.
**Column Stock**, page 191.
**Figaro Series**, page 188.
**Katz Series**, page 192.
**Katz Hi Double White**, page 192.
**Mathilda Series**, page 189.
**Opera Series**, page 190.

**SUNFLOWER**
See Potted Plants, page 173.
TORENIA

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.

Magenta
Deep Blue
White
Lemon Drop
Rose
Mixing Deep Blue

Find product & growing info at panamseed.com / TORENIA
VERBENA

Verbena x hybridra

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.

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.

XP Purple

Largest florets and slightly more vigour than others in the series.

XP Merlot Mixture

Strong burgundy, red and purple shades.

PERENNIAL VERBENA

Santos Purple, page 157.
VINCA • Catharanthus roseus

TRAILING VINCA

**Mediterranean XP Series**

**Height:** 4 to 6 in./10 to 15 cm  
**Spread:** 20 to 30 in./51 to 76 cm  
**Seed supplied as:** Raw  
**Plug crop time:** 5 weeks  
**Transplant to finish (basket):** Spring 12 to 14 weeks, Summer 8 to 10 weeks

- The only full series of trailing vinca offering a true red.  
- Mediterranean XP varieties fill in fast with terrific coverage.  
- XP varieties 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.
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.

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.
Cranberry Features a rich, velvety, dark red bloom colour with a lighter centre. Times with Really Red. Landscape height is on the tall side of the series at 16 in. (41 cm).
Really Red Same colour as Pacifica Really Red. A top-selling vinca colour and a key colour for landscapers.
Bubble Gum Mixture Blush, Icy Pink, Rose.
Clear Mixture Burgundy, Dark Red, Lilac, Punch, Pure White.
Summer Breeze Mixture Lavender Blue Halo, Lilac, Pure White.
F1 UPRIGHT VINCA continued

**Valiant™ Series F1**

- **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 selected in Florida to have field resistance to aerial Phytophthora.
- 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.

---

**Varieties:**

- **Apricot** US PAF
- **Burgundy** US 9,451,748
- **Lilac** US 9,451,752
- **Magenta** US PAF
- **Punch** US 9,451,751
- **Pure White**

---

**ANNUALS / VALIANT**

Request your Product Information Guide for full culture details
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.

Blueberry A unique colour perfect for combining with other plants to create heat-loving red, white and blue mixes.

Orange Features a medium orange colour with a consistent dark centre. Petal colour lightens in high light and temperatures. Similar size and timing to Tattoo Black Cherry.

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.

American Pie Mixture Includes Blueberry, plus two Pacifica XP varieties, Really Red and White.

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!

Black Cherry US PVP 201800427
Blueberry US PVP 202100168
Orange US PVP 202200007
Papaya US PVP 201800424
Raspberry US PVP 201800426
Tangerine US PVP 201800425
American Pie Mixture US PVP 202100168, US PVP 200600190
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** Deep Orchid, Orange, Really Red.

---

**Pacifica XP Series**

- Request your Product Information Guide for full culture details.

---

**XP Mixture**
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.

VIOLA
Viola cornuta

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 Deep Orange Deepest orange-flowered viola on the market; uniform, controlled plants for ease of production. Superior to competing varieties in colour, timing, uniformity.

XP Delft Blue Blue and white bicolour. Fleuroselect Gold Medal.

XP Morphi Bicolour pattern changes with environment; more blue under cool Spring conditions.

XP Neptune Beautiful cream with blue picotee.

New XP Orange Jump Up Improved Upgraded for its habit, this improved variety has slightly more vigour to match the rest of the series, with XP timing.

XP Pink Wing Highly sought-after pink cap/white face colour pattern.

XP Raspberry Rose-pink and white shades.

XP Red Excellent red colour with staying power; times on the late side of the series.

XP Rose Blotch Rose with a defined blotch. Times on the early side of the series.

XP True Blue Best true blue V. cornuta. Less stretch, better plant structure and truer blue colour than competing varieties.

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 Blueberry Sundae Mixture XP True Blue, XP Delft Blue, XP White.

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

XP Harvest Mixture XP Deep Orange, XP Purple, XP Yellow.


XP Spring Select Mixture Selected for optimal timing and habit uniformity in Spring.
ANNUALS / SORBET XP

- XP Deep Orange
- XP Purple
- XP Red
- XP True Blue
- XP White
- XP Yellow

- XP Blue Blotch
- XP Lemon Ice Blotch
- XP Rose Blotch
- XP White Blotch
- XP Yellow Blotch
- XP Denim Jump Up

- XP Lemon Jump Up
- NEW XP Orange Jump Up Improved
- XP White Jump Up
- XP Yellow Burgundy Jump Up
- XP Yellow Jump Up
- XP Yellow Pink Jump Up

- XP Beaconsfield
- XP Delft Blue
- XP Marina
- XP Neptune
- XP Pink Halo
- XP Pink Wing

- XP Purple Face
- XP Raspberry
- XP YTT
- XP Morpho

VIOLA / Request your Product Information Guide for full culture details
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.

Tiger Eye  
Unusual striped pattern is excellent for Fall sales. Habit and timing match Sorbet XP.
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: Raw, Primed
Plug crop time: 4.5 to 5 weeks
Transplant to finish: Spring 5 to 6 weeks, Autumn 3 to 4 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 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.

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.

Purple Shades Frilled purple flower with an attractive dark eye.
Tapestry Flowers contain shades of purple, burgundy and yellow, providing a tapestry of colour.
Yellow Frilled yellow flower with an attractive dark eye.
Mixture Yellow, Purple Shades and Tapestry.

Shorter production time = cost savings
Flowering 2 weeks faster than comparable series, Quicktime allows you to sow your viola crop 2 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!
**ZINNIA**

*Zinnia marylandica*

**Zahara® Series**

**Height:** 12 to 18 in./30 to 46 cm  
**Spread:** 12 to 18 in./30 to 46 cm  
**Seed supplied as:** Raw, Coated  
**Plug crop time:** 3 weeks  
**Transplant to finish:** Spring 8 to 9 weeks, Summer 5 to 6 weeks

- 20% larger flowers than competing varieties means more colour on the bench than any other disease-resistant zinnia...more retail impact...flower power that lasts in the landscape.
- Less care needed at retail for faster turns, less dump and better sell-through.
- Outstanding performer in heat, drought.

**Fire** Bright orange-red hue intensifies outdoors.

**Raspberry** Matches Fire for habit.

**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 fertilisation and cool nights. All-America Selections Winner, Fleuroselect Novelty.

**Bonfire Mixture** Red, Fire, Yellow.

**Raspberry Lemonade Mixture** Raspberry, Yellow, Starlight Rose.

Request your Product Information Guide for full culture details.
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

- Fully double, disease-resistant zinnia series makes a huge colour show!
- Double Zahara blooms are fully double and are larger than the competition.
- 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.

**Cherry**
Slightly less double than others in the series. All-America Selections Winner.

**Fire**
All-America Selections Winner.

**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, Yellow, Fire, White.
ZINNIA
Zinnia elegans (syn. Zinnia violaceae)

Zesty™ Series

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

Fuchsia Vivid rose-purple colour to light up the garden.
Orange Vibrant orange colour. Similar in height to Purple.
Pink A darker pink shade with more purple/rose tones than the competition.
Purple Stunning and unique deep purple colour.
Scarlet The most compact variety in the series.
White A true white colour.
Yellow In the middle of the series for height. Can be less double than the rest of the colours in low light conditions.

New Mixture Improved
Includes Fuchsia, Pink, Purple, Scarlet, White, Yellow and now Orange.

ZINNIA

NEW
Mixture Improved

Orange
Pink
Purple
Scarlet
White
Yellow
ANNUALS

ZINNIA

Scarlet

Orange and Yellow

Yellow

Fuchsia

Find product & growing info at panamseed.com / ZINNIA 129
REPEAT PERFORMANCE

Kieft Seed is a brand known globally for its professional-quality perennials from seed, with a full lineup of unique genetic varieties that growers can count on for reliability and easy programming. But don’t take our word for it, prove it for yourself by growing some of our most popular perennials, like Earlybird™ Aquilegia and Artisan™ Collection Echinacea. Now you can get them ready for retail on your time, using the First-Year-Flowering Tool at panamseed.com.
AQUILEGIA
Aquilegia x hybrida

Earlybird™ Series F1

Height: 9 to 11 in./23 to 28 cm
Spread: 8 to 10 in./20 to 25 cm
Flower size: 2 to 3 in./5 to 8 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: 12 to 16 weeks
(20 to 30 weeks overwintered)

• Strong colours and colour combinations spark new interest in Aquilegia!
• Series has a low cold requirement and short juvenility for growing in warm Winter climates.
• Features a controlled habit, with relatively short stems on well-mounded plants.
• A flowering window of 10 to 12 days, plus a short harvest window, make it an excellent choice for early-Spring programs.
• Purple White, Purple Yellow and Red Yellow are unique colours in F1 Aquilegia.
Blue White Features a slightly more slender plant habit compared to the rest of the series.
Purple White Flowers 2 to 3 days earlier than the rest of the series.
Purple Yellow Flowers 5 to 7 days later than the series average, and is 2 in. (5 cm) taller.

Red Yellow
AQUILEGIA (COLUMBINE)

Aquilegia vulgaris

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.
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.

**Pink And Yellow** Slightly earlier than other Swan colours, flowering 2 to 3 weeks faster.

---

**Blue And White**

**Burgundy And White** *Royal Horticultural Society Award of Garden Merit*

**Lavender**

**Pink And Yellow**

**Red And White**

**Violet And White**

**White**

**Yellow** *Royal Horticultural Society Award of Garden Merit*
ARMEIRA
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.

**AURINIA**
Aurinia saxatile

**Gold Rush**

- **Height:** 5 to 8 in./13 to 20 cm
- **Spread:** 5 to 8 in./13 to 20 cm
- **Flower size:** 0.5 to 3 in./1 to 8 cm
- **USDA Hardiness Zones:** 3a to 9a (-40 to 20°F/-40 to -7°C minimum temperatures)
- **Seed supplied as:** Raw
- **Plug crop time:** 6 to 7 weeks
- **Transplant to finish:** 26 to 32 weeks
  - Shorter-stemmed Aurinia features a more uniform plant habit and earlier flowering than the competition.
  - Evergreen early-Spring flowering perennial forms neat rosettes.

**BELLIS**
Bellis perennis

**Bellissima™ Series**

- **Height:** 6 to 10 in./15 to 25 cm
- **Spread:** 5 to 8 in./13 to 20 cm
- **USDA Hardiness Zones:** 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)
- **A First-Year-Flowering Perennial.**
- **Seed supplied as:** Pelleted
- **Plug crop time:** 5 to 6 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**
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.

**CAMPANULA** Also see page 161.
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 earlier in the 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.

**COREOPSIS**
**Coreopsis grandiflora**

**Double the Sun**
- **Height:** 12 to 14 in./30 to 36 cm
- **Spread:** 12 to 14 in./30 to 36 cm
- **Flower size:** 2 to 3 in./5 to 8 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 10 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.

**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:** 11 to 13 weeks
- Our most vigorous Coreopsis.
- Produces golden-yellow, semi-double flowers constantly all Summer.
- Can also be marketed as an annual in premium packs.
- For 2-gallon and larger containers in Summer, Early Sunrise is the optimal choice.

**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:** 10 to 12 weeks
- 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.
- Golden yellow flower with deep red blotch.

**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 10 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.
- 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.

---

Find product & growing info at panamseed.com / **COREOPSIS** 137
**DELPHINIUM**

*Delphinium elatum*  
**Guardian Series F1**  
**Height:** 30 to 39 in./76 to 99 cm  
**Spread:** 10 to 12 in./25 to 30 cm  
**USDA Hardiness Zones:** 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 6 to 7 weeks  
**Transplant to finish:** 16 weeks  
- Breeding breakthrough makes it easy to program your crop to meet shipping dates.  
- Very uniform blooming within each variety, especially under short days.  
- Works well as a tall landscape/perennial variety, as a commercial cut flower, and in potted plant programs.  
- Up to 6 weeks faster from transplant to bloom than O.P. types for more turns per sq. ft./sq. m 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 shipability.

**Dasante Blue F1**  
**Height:** 28 to 34 in./71 to 86 cm  
**Spread:** 10 to 12 in./25 to 30 cm  
**USDA Hardiness Zones:** 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 6 to 7 weeks  
**Transplant to finish:** 11 to 13 weeks  
- The first F1 spurless Delphinium from seed eliminates the need for tissue culture inputs.  
- Supplied with up to 25% higher germination than O.P. types for more efficient young plant production.

**DELPHINIUM**  
*Delphinium x belladonna*  
**Blue Donna**  
**Height:** 32 to 40 in./81 to 102 cm  
**Spread:** 8 to 10 in./20 to 25 cm  
**USDA Hardiness Zones:** 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks  
- True blue Delphinium has improved uniformity and colour, increased productivity and more stems per sq. ft./sq. m.

**DELPHINIUM**  
*Delphinium grandiflorum*  
**Diamonds Blue F1**  
**Height:** 16 to 24 in./41 to 61 cm  
**Spread:** 10 to 12 in./25 to 30 cm  
**USDA Hardiness Zones:** 4a to 9b (-30 to 25°F/-34 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 6 to 7 weeks  
**Transplant to finish:** 10 to 12 weeks  
- 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./sq. m 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 shipability.

**Dasante Blue**  
**Height:** 28 to 34 in./71 to 86 cm  
**Spread:** 10 to 12 in./25 to 30 cm  
**USDA Hardiness Zones:** 4a to 7b (-30 to 5°F/-34 to -15°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 6 to 7 weeks  
**Transplant to finish:** 11 to 13 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./sq. m 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 shipability.

**Blue Donna**  
**Height:** 32 to 40 in./81 to 102 cm  
**Spread:** 8 to 10 in./20 to 25 cm  
**USDA Hardiness Zones:** 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks  
- 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./sq. m 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 shipability.

**Blue Donna**  
**Height:** 32 to 40 in./81 to 102 cm  
**Spread:** 8 to 10 in./20 to 25 cm  
**USDA Hardiness Zones:** 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks  
- 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./sq. m 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 shipability.

**Blue Donna**  
**Height:** 32 to 40 in./81 to 102 cm  
**Spread:** 8 to 10 in./20 to 25 cm  
**USDA Hardiness Zones:** 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks  
- 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./sq. m 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 shipability.

**Blue Donna**  
**Height:** 32 to 40 in./81 to 102 cm  
**Spread:** 8 to 10 in./20 to 25 cm  
**USDA Hardiness Zones:** 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks  
- 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./sq. m 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 shipability.

**Blue Donna**  
**Height:** 32 to 40 in./81 to 102 cm  
**Spread:** 8 to 10 in./20 to 25 cm  
**USDA Hardiness Zones:** 5a to 9b (-20 to 25°F/-29 to -4°C minimum temperatures)  
**A First-Year-Flowering Perennial.**  
**Seed supplied as:** Raw  
**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks  
- 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./sq. m 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 shipability.
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

- Uniform in height and early flowering.
- Well-branched with excellent habit and compact foliage.
- Striking colours on good-quality spikes.
- Suitable for 1 and 2 gallons and up.
- Premium end cap product.

**Crème**

**Rose**

**Purple** Fleuroselect Novelty

**Peach**

**White**

**Mixture**

Showy for early sales

Be fast to market with this attractive 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!
**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
- **Flower size:** 1 to 1.5 in./3 to 4 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

- **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!
  - 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.

**Pink Magic** Blooms open white and mature to light pink, then deep pink.

**ANNUAL DIANTHUS**
See page 44.

**CUT FLOWER DIANTHUS**
See page 182.
ECHINACEA

Echinacea x hybrida

**Artisan™ Collection F₁**

- **Height**: 16 to 28 in./41 to 71 cm
- **Spread**: 10 to 25 in./25 to 64 cm
- **Flower size**: 3 to 4 in./8 to 10 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**: Amplified
- **Plug crop time**: 5 to 6 weeks
- **Transplant to finish**: 13 to 17 weeks

- The first F₁ hybrid Echinacea individual colour collection from seed!
- Offers consistency of plant structure for a uniform, highly branched, full plant.
- Features uniform flowering, so all plants are ready to sell at the same time.
- Seed input provides flexibility for production and labour management.
- Amplified seed form is enhanced through a proprietary process, resulting in faster and more uniform germination compared to non-enhanced seed.

**Red Ombre**

Flowers open red and soften in colour as they mature.

**Soft Orange**

Flowers open deep orange and soften as they mature.

**Yellow Ombre**

Features the same excellent branching as Red Ombre and Soft Orange, with a more upright habit and the foliage is a lighter mid-green. About 2 to 4 in. (5 to 10 cm) taller than the rest of the collection, and a small percentage of the plants are 6 to 8 in. (15 to 20 cm) taller, with the same plant habit and an intense golden yellow colour.

**All-America Selections**

**Regional Award Winner, Southeast and West/Northwest!**

---

**The first F₁ hybrid seed Echinacea collection is just better!**

The Artisan™ Collection of seed Echinacea offers consistency of plant structure for uniform and highly branched, full plants. The series also provides uniformity of flowering, so all plants are ready to sell at the same time. Plus, the benefit of a seed input provides flexibility for production, so it fits better in your schedule.

---

**Red Ombre** US 7,982,110 | **Soft Orange** US 7,982,110 | **Yellow Ombre** US 7,982,110

Medal of Excellence Industry’s Choice
ECHINACEA
ECHINACEA purpurea
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.

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.

Cheyenne Spirit US 7,982,110 All-America Selections Winner, Fleuroselect Gold Medal, Medal of Excellence Best Performing Variety
PowWow® Series

**Height:** 16 to 20 in./40 to 50 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, non-fading 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.

**Wild Berry** Unique intense rose flowers with dark rose center. Produces up to 2% taller plants.

Find product & growing info at panamseed.com / ECHINACEA
**GAILLARDIA**

*Gaillardia x grandiflora, Gaillardia aristata x Gaillardia pulchella*

**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:** Raw

**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.

**Yellow**

All-America Selections Winner; Fleuroselect Gold Medal

**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.
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.

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 8b (-30 to 15°F/-34 to -9°C minimum temperatures)
A First-Year-Flowering Perennial.
Seed supplied as: Pelleted
Plug crop time: 6 to 8 weeks
Transplant to finish: 10 to 12 weeks
• Compact variety has highly attractive foliage of strong bronze-purple, with small white flowers appearing later.

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: 4a to 8b (-30 to 15°F/-34 to -9°C minimum temperatures)
Seed supplied as: Pelleted
Plug crop time: 8 to 10 weeks
Transplant to finish: 12 to 16 weeks
• The only seed strain to deliver a strong-coloured, red-purple, curled-leaf Heuchera.
• Seedlings germinate over a longer period, and deliver the same quality plants.
• Strong garden performer has good weather tolerance.
• Excellent-quality plants.
• True tissue culture alternative.
**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.

**IBERIS**

*Iberis sempervirens*

**Whiteout F1**

- 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.

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

**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.

**Snow** The only true white Lavender from seed. Finish time is 3 to 4 weeks later than Ellagance Purple.

**Lavance Deep Purple**

- **Height:** 10 to 12 in./25 to 30 cm
- **Spread:** 10 to 12 in./25 to 30 cm
- **USDA Hardiness Zones:** 5a to 8b (-20 to 15°F/-29 to -9°C minimum temperatures)
- **A First-Year-Flowering Perennial.**

- **Seed supplied as:** Raw
- **Plug crop time:** 5 to 6 weeks
- **Transplant to finish:** 9 to 11 weeks

- Produces the deepest 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.
- 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.
LAVANDULA continued

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).

Your full Lavender program in one place!
Find four great varieties to boost your regionally focused program of Lavandula angustifolia from PanAmerican Seed. With Blue Spear, Avignon Early Blue, the Ellagance Series and Lavance Deep Purple, we have all the seed Lavender you’ll need. Find detailed information in our regional Lavender Scheduling Tool at panamseed.com/perennials.

LAVANDULA / Request your Product Information Guide for full culture details
LAVANDULA  
Lavandula stoechas

Bandera Series

Height: 7 to 9 in./18 to 23 cm  
Spread: 10 to 12 in./25 to 30 cm  
USDA Hardiness Zones: 7a to 10b (0 to 35°F/-18 to 2°C minimum temperatures)  
A First-Year-Flowering Perennial.

Seed supplied as: Raw
Plug crop time: 6 to 7 weeks  
Transplant to finish: 11 to 14 weeks (28 to 35 weeks overwintered, only in high light/low humidity areas)

- 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.  
- 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.  
- 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.

Deep Purple

Brings a unique, strong, deep purple colour from seed. It complements the series, offering the same strong colours found in vegetative varieties.

Deep Rose

The strongest rose colour from seed on the market! Habit and timing are a great match for the other Bandera varieties.

Pink

Large, soft pink flags on spikes with deep rose flowers.

Purple

1 week later to flower than the rest of the series.

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)  
A First-Year-Flowering Perennial.

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.

Make the change to seed L. stoechas today!

Professional-quality L. stoechas Bandera is an excellent seed option for this class. This compact, bushy, no-pinch plant has great flower power just 11 to 14 weeks from transplant, and it’s quick to finish compared to vegetative varieties. Plus, no pinch means less production time, making it an all-around perennial winner.

Find product & growing info at panamseed.com / LAVANDULA 149
Complete your seed shasta Leucanthemum F1 package!

Use White Lion for early-Spring sales from overwintered production (previously only possible with vegetative varieties) and for Spring sales from annual production. White Lion has a critical daylength of only 10 hours. Use Madonna for late Spring and Summer sales in long-day conditions. Madonna has a critical daylength of 14.5 hours. Both offer better uniformity in height and habit over their seed counterparts; plus, they provide an excellent alternative to vegetative Leucanthemum with no vernalisation needed and no risk for bacterial infection. With these two options, you’ll have easy-to-ship plants for early Spring into Summer on the bench and in the store.
LEUCANTHEMUM

White Lion F1

Height: 8 to 10 in./20 to 25 cm
Spread: 8 to 12 in./20 to 30 cm
Flower size: 3 to 3.5 in./8 to 9 cm
USDA Hardiness Zones: 3b to 9a (-35 to 20°F/-37 to -7°C minimum temperatures)
A First-Year-Flowering Perennial.

Seed supplied as: Raw
Plug crop time: 5 to 6 weeks
Transplant to finish: annual, 9 to 12 weeks; overwintered, 18 to 26 weeks (18 in southern regions)

- The Spring Shasta! This unique compact seed Leucanthemum can be grown in short days (10-hour daylength requirement) - perfect for early Spring sales!
- An alternative to vegetative varieties that doesn’t require vernalisation and has no risk of bacterial infection.
- Ideal for an annual production schedule. No supplemental lighting needed, flowers under natural days.
- Perfect for overwintered production in natural short days, finished under natural short days, when it will bulk more uniformly. No supplemental light or Night Interruption needed.
- No other seed variety offers this early programming solution!

Madonna F1

Height: 8 to 10 in./20 to 25 cm
Spread: 8 to 12 in./20 to 30 cm
Flower size: 2.5 to 3 in./6 to 8 cm
USDA Hardiness Zones: 3b to 9a (-35 to 20°F/-37 to -7°C minimum temperatures)
A First-Year-Flowering Perennial.

Seed supplied as: Raw
Plug crop time: 5 to 6 weeks
Transplant to finish: 10 to 14 weeks

- Madonna offers better uniformity in height and habit over the competition.
- Compact, first-year-flowering F1 shasta with a critical daylength of 14.5 hours is an alternative to vegetative varieties that doesn’t require vernalisation and has no risk of bacterial infection.
- Features excellent vigour and leaf quality for optimal finishing in quarts to large containers using multiple plugs.
- It also offers a reduced percentage of “too small” plants compared to standard seed varieties.
- With a larger percentage of saleable plants, Madonna requires less labour for harvesting and grading.
- Up to 15% of petals may have laced-edge petals for a unique look.
LOBELIA
Lobelia x speciosa

Starship™ Series F1

Height: 20 to 24 in./51 to 61 cm
Spread: 8 to 12 in./20 to 30 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; all others, 8 to 10 weeks
Transplant to finish: 14 to 18 weeks

• Earlier flowering; improved branching; low stretch; uniform, controlled habit; and huge flower power assure a better-quality finished plant than the competition.
• Pretty Summer plant for beds and borders - 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.

Blue This variety has a height of 24 to 28 in./61 to 71 cm, which is 6 to 8 in./15 to 20 cm taller than the rest of the series. It also has green leaves, in contrast to the bronze leaves of the other varieties.

Burgundy Features the same habit as Scarlet and Rose.

Rose A bright rose colour. Matches Scarlet for timing and uniformity.

Scarlton Bronze Leaf The most bronze-leaved variety in the series grows to 24 to 26 in./61 to 66 cm in height, about 4 to 6 in./13 to 15 cm taller than Scarlet, and is 1 week later to flower. Features an in-demand combination of deep bronze leaves with intense scarlet flower power.

ANNUAL LOBELIA See page 62.
**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  
- **Flower size:** 0.2 to 0.3 in./1 cm  
- **USDA Hardiness Zones:** 6a to 8b (-10 to 15°F/-23 to -9°C minimum temperatures)  
- **A First-Year-Flowering Perennial.**

**Seed supplied as:** Raw  
**Plug crop time:** 4 weeks  
**Transplant to finish:** 5 to 9 weeks

- 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*.  
- **Pink** Has the same habit as Mon Amie Blue, but the foliage is a bit lighter green, and first and 100% flowering are 2 to 3 days earlier.  
- **Mixture** Combines Blue, Pink and White (not available separately).  

**PAPAVER**  
*Papaver nudicaule*

**Champagne Bubbles Series F1**
- **Height:** 15 in./38 cm  
- **Spread:** 6 in./15 cm  
- **USDA Hardiness Zones:** 4a to 8b (-30 to 15°F/-34 to -9°C minimum temperatures)  
- **A First-Year-Flowering Perennial.**

**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.  

**ORNAMENTAL OREGANO**  
**KIRIGAMI** See page 70.
**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.

**PEROVSKIA**
*Perovskia atriplicifolia*

**Blue Steel**
- **Height:** First year, 14 to 22 in./36 to 56 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 30 in./51 to 76 cm
- **USDA Hardiness Zones:** 4a to 9b (-30 to 20°F/-34 to -7°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.
- 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.
- Pinch for optimal branching.
- Heat/drought tolerant, very hardy.

**Bluesette**
*Perovskia atriplicifolia*
- **Height:** First year, 14 to 22 in./36 to 56 cm; second year and on, 18 to 26 in./46 to 66 cm
- **Spread:** First year, 14 to 22 in./36 to 56 cm; second year and on, 124 to 30 in./312 to 76 cm
- **USDA Hardiness Zones:** 4a to 9a (-30 to 20°F/-34 to -7°C minimum temperatures)
- **A First-Year-Flowering Perennial.**
- **Seed supplied as:** Raw
- **Plug crop time:** 5 to 8 weeks
- **Transplant to finish:** 10 to 14 weeks
- The first and only compact, branching and early Perovskia from seed.
- Works well at the front of the landscape, as well as in a single premium patio container or mixed combo.
- A true alternative to vegetative varieties.
- This facultative long-day plant will flower earlier in long days, as well as in higher light intensity and temperatures.
- Features a long flowering period, with ornamental foliage, a pleasing fragrance and attracts bees and butterflies.
- Novelty type brings added value and appeal to a variety of garden spaces.

**Electric Blue Penstemon**

It’s as tough as… STEEL!

A perennial first: 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

**Bluesette Perovskia** Fleuroselect Novelty

**Perennials / Electric Blue**

Request your Product Information Guide for full culture details
A natural daylength growing solution!
Here’s a new first-year-flowering solution for growers that cannot finish Goldsturm under their natural growing conditions. Goldblitz provides a more economical input option for natural daylength growers, as the plugs do not require special treatment to perform to the same quality as Goldsturm.

**RUDBECKIA**
*Rudbeckia fulgida var. sullivantii*

**Goldblitz**

- **Height:** 24 to 28 in./61 to 71 cm
- **Spread:** 14 to 18 in./36 to 46 cm
- **Flower size:** 3 to 3.5 in./8 to 9 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 7 weeks
- **Transplant to finish:** 15 to 20 weeks
  - Will flower fully as an annual crop if sown in early Spring in natural conditions, assuming that Summer provides a minimum of 14.5 hours daylength; Goldsturm requires 15 hours critical daylength.
  - Shortens the production time for a finished flowering crop to 2 to 3 weeks compared to Goldsturm.
  - Provides a more economical input option for natural daylength growers, as the plugs do not require special treatment.
  - It has a slightly smaller leaf and flower size than Goldsturm.
  - **Fleuroselect Gold Medal** award winner for both container and garden performance.

**Goldsturm**

- **Height:** 24 to 28 in./61 to 71 cm
- **Spread:** 14 to 18 in./36 to 46 cm
- **Flower size:** 3 to 4 in./8 to 10 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.
  - Goldsturm needs early sowing and optimal natural growing conditions to provide 100% First Year Flowering.
**SALVIA**

*Salvia nemorosa*

**New Dimension™ Series**

- **Height:** 8 to 10 in./20 to 25 cm
- **Spread:** 6 to 8 in./15 to 20 cm
- **Flower size:** 0.2 to 0.3 in./1 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:** Treated, Non Chemical

**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.

**Salvatore Blue**

- **Height:** 10 to 12 in./25 to 30 cm
- **Spread:** 6 to 8 in./15 to 20 cm
- **Flower size:** 0.2 to 0.3 in./1 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:** Treated, Non Chemical

**Plug crop time:** 5 to 6 weeks

**Transplant to finish:** 8 to 11 weeks

- Premium-look Salvia features the largest spikes and the deepest coloured calyx, spikes and flower in Salvia *nemorosa* from seed.
- A good seed alternative to vegetative Salvia.
- More vigorous than New Dimension™ Blue, it is better suited for gallons.
- Features black stems on 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, 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.
**SALVIA**  
*Salvia patens*

**Patio Deep Blue**
- 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.

**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.

**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 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: 12 to 14 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 bonariensis*

**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 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
- 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-branching plants bloom late Spring through Summer.
- High powdery mildew resistance.
- Ideal for combo planters.
THE GIFT OF UNIFORMITY

Potted plants are an ideal gift for almost any occasion, and our selection is guaranteed to bring a smile to any face. These plants offer easy production for the grower, great shelf appeal for the retailer and a grab-n-go attraction for the consumer. Take our three gerbera series: the vibrant colours of Revolution™, Mega Revolution™ and ColorBloom™ are synchronized across each series, so they bloom together and stay in bloom longer. They can’t help but provide consumer-pleasing performance for the giver and the receiver.
**CONCERTINA™ Series**

- **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**: 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.

**Pink**
- Slightly more vigorous than the rest of the series.

**Red Dark Leaf**
- More vigorous compared to the rest of the series.

**Yellow**
- Slightly later to flower compared to the rest of the series. Can be more than one week in long days.

**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**: Pelleted
- **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 potted performance.

**Series** | **No. of Varieties** | **Recommend pot size**
--- | --- | ---
**Concertina Series** | 5 & 1 mix | 4-4.5 in./10-11 cm, Quart
**Kosmo Series** | 6 & 1 mix | 4-4.5 in./10-11 cm, Quart
CAMPANULA
Campanula medium

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 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 1 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>Campanella</td>
<td>3</td>
<td>4-4.5 in./10-11 cm, Quart</td>
</tr>
</tbody>
</table>

Find product & growing info at panamseed.com / CAMPANULA 161
**ORNAMENTAL PEPPER (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.

## 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>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acapulco™ Series</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./17-19 cm</td>
<td>0.5 x 1.5 in./1.5 x 4 cm</td>
<td>6 in./15 cm</td>
</tr>
<tr>
<td>Salsa XP Series</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>
<tr>
<td>Samba Series</td>
<td>Dark 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>
</tbody>
</table>
POTTED PLANTS / HOT POPS

Hot Pops Purple US 9,301,465
Hot Pops Yellow US 9,307,712
Chilly Chili US 7,087,819 and 7,393,995 All-America Selections Winner
Blaze
Cupala
Harlequin
Medusa
Santos Orange
Red Missile
Wicked
Masquerade

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>
<th>Fruit size</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SMALL POTS 2.5-5 in. /10-15 cm (Compact plants)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot Pops Series</td>
<td>Purple, Yellow</td>
<td>4-5</td>
<td>7-13 for Autumn finish</td>
<td>4.25-5 in. 11-13 cm or 3 ppp: 6-8 in. 15-19 cm</td>
<td>0.4/1 cm round</td>
<td>4-5 in./10-13 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.

| Blaze | Yellow to red | 4-5 | 7-13 for Autumn finish | 4.4-5 in./10-12 cm | 0.75 x 2.25 in./2 x 6 cm | 4-8 in./10-20 cm |

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.

| Cupala | Lime to red | 3-4 | 11-12 | 4-4.5 in./10-12 cm | 0.3 x 2.75 in./1 x 7 cm | 4.5 in./12 cm |

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.

| Medusa | Ivory to yellow to orange to bright red | 4-5 | 7-13 for Autumn finish | 4 in./10 cm | 2-2.5 in./5-6 cm | 6-8 in./15-20 cm |

**LARGER POTS 6-8 in./15-19 cm (More vigorous plants)**

| Santos Orange | Orange | 3-4 | 12-13 | 4.4-5 in./10-12 cm 3 ppp: 6.5-7.5 in./17-19 cm | 0.3 x 2 in./1 x 5 cm | 6 in./15 cm |

| Wicked | Purple to red | 4-5 | 7-13 for Autumn finish | 4.4-5 in./10-12 cm | 1 x 2.75 in./3 x 7 cm | 6-8 in./15-20 cm |

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.

| Chily Chili F1 | Yellow-green to orange to dark red | 4-5 | 7-13 for Autumn finish | 6 in./15 cm | 2-2.5 in./5-6 cm | 9-10 in./23-25 cm |

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.

| Harlequin | Multicolour | 3-4 | 13-14 | 4.5-6 in./12-15 cm | 0.5 x 0.75 in./1.5 x 2.5 cm | 8 in./20 cm |

| Masquerade | Purple and orange to red | 4-5 | 7-12 for Autumn finish | 4.8 in./10-20 cm or 3 ppp: 5-8 in./13-19 cm | 0.3 x 1.5 in./1 x 4 cm | 10-12 in./25-30 cm |

Tapered fruit in multicolours – appear purple and orange, then mature to red. Good for use in containers and gardens. **NOTE:** Fruit is hot.

| Red Missile | Cream to orange to bright red | 4-5 | 7-11 for Autumn finish | 4.8 in./10-19 cm or 3 ppp: 6-8 in./15-19 cm | 2 in./5 cm | 10-12 in./25-30 cm |

Compact plants are good for containers and gardens. **NOTE:** Fruit is hot.

---

Find product & growing info at panamseed.com / ORNAMENTAL PEPPER 165
EXACUM

*Exacum affine*

**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** Varies by variety

**Seed supplied as:** Pelleted

- Low cost and fast production.
- Perfect crop for Summer production.
- Long-lasting flowers have a sweet fragrance.
- Extremely good shelf life.
- Sales period: March to October.

### Variety Specifications

<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>4.5-6 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, 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>

---

**Variety:**
- **Princess Deep Blue**
  - Deep Blue
  - Deep Blue, White

**Variety:**
- **Princess White**
  - Deep Blue, White

**Variety:**
- **Royal Dane Deep Blue**
  - Deep Blue

**Variety:**
- **Royal Dane White**
  - Deep Blue, White

---

**Images:**
- Princess Deep Blue
- Princess White
- Royal Dane Deep Blue
- Royal Dane White
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.

**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 Orange with Dark Eye Improved**

**Deep Rose with Light Eye**

Superior dark colour is great for mixes and combo pots. Colour holds very well under high light levels.

**New Orange with Dark Eye Improved**

Offers better height control and habit uniformity, improved flower quality and a stronger colour.

**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 167
GERBERA continued

Revolution™ Series F1

Height: 4 to 8 in./10 to 20 cm
Spread: 10 to 12 in./25 to 30 cm
Flower size: 3 to 4 in./8 to 10 cm
Seed supplied as: Coated
Plug crop time: 6 to 7 weeks
Transplant to finish: 8 to 10 weeks

- When it comes to uniformity of flowering window across a complete colour range, Revolution is the leading standard-size pot gerbera.
- Industry-leading seed quality.
- Better second flush of flowers than the competition assures much longer bloom time for the consumer.
- Best for 5-in./13-cm pots.

Bicolor Red Lemon
A unique bicolour in gerberas.

Deep Orange with Dark Eye
More compact variety has a good, deep orange colour.

Deep Pink with Light Eye
Replaces Pink with Light Eye with a deeper pink colour.

New Orange with Dark Eye
Highly uniform variety has a great strong orange colour and lots of broad petals. Times perfectly with the rest of the series.

Red with Light Eye
Puts multiple blooms up at one time and has the shortest cropping window of any gerbera.

Salmon Shades with Light Eye
Features short stems, making it a good mix component, with shades from deep salmon to pink.

Yellow with Light Eye
Best yellow variety in the series is a big improvement over older yellow varieties, with a strong colour and good uniformity.

Bicolor Mixture
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 Dark Eye
- Orange with Light Eye
- NEW Orange with Dark 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.

NEW
Orange with Dark Eye

Deep Pink with Light Eye
Pastel Orange  Bright Rose with Light Eye  Deep Pink with Light Eye  Orange with Light Eye
Red with Light Eye  Salmon Shades with Light Eye  White with Light Eye  Yellow with Light Eye
Deep Orange with Dark Eye  Golden Yellow with Dark Eye  Orange with Dark Eye  Red with Dark Eye
Bicolor Red Lemon  Bicolor Red White  Bicolor Rose White  Bicolor Yellow Orange
Bicolor Mixture  Select Mixture
Gerbera

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.

Bicolor Orange Yellow
Around one week later to flower compared to other varieties in the series.

Bicolor Red White
A unique bicolor for this quart/11-cm pot market segment! Fits the series for controlled plant habit and consumer performance; 5 days later to flower like Bicolor Orange Yellow and Deep Orange with Dark Eye.

Cherry with Light Eye
Can show more red under higher light conditions.

Deep Orange with Dark Eye
Features a good orange colour that doesn’t fade under higher light conditions. Fits the series very well for plant habit and consumer performance; 5 days later to flower like Bicolor Red White and Bicolor Orange Yellow.

Red with Dark Eye
More uniform in colour and around 1 week earlier to flower than competing reds.

New Watermelon with Dark Eye
Features slightly larger flowers than other series varieties and the colour varies a bit within the population. Colour holds best under low light conditions.

White with Dark Eye
Clear white and uniform in colour.

Yellow with Dark Eye
Slightly smaller flowers than the rest of the series.

Mixture
Includes all varieties.

---

<table>
<thead>
<tr>
<th>Series</th>
<th>No. of Varieties</th>
<th>Recommend pot size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mega Revolution</td>
<td>11 &amp; 1 mix</td>
<td>6 in./15 cm</td>
</tr>
<tr>
<td>Revolution</td>
<td>16 &amp; 2 mixes</td>
<td>5 in./13 cm</td>
</tr>
<tr>
<td>ColorBloom</td>
<td>10 &amp; 1 mix</td>
<td>Quart/11 cm</td>
</tr>
</tbody>
</table>

New Watermelon with Dark Eye, Revolution Bright Rose with Light Eye and ColorBloom Bicolor Orange Yellow

---

New Watermelon with Dark Eye
Features slightly larger flowers than other series varieties and the colour varies a bit within the population. Colour holds best under low light conditions.

White with Dark Eye
Clear white and uniform in colour.

Yellow with Dark Eye
Slightly smaller flowers than the rest of the series.

Mixture
Includes all varieties.
**Stays tidy for smaller pots**

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.

Find product & growing info at panamseed.com / GERBERA 171
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.

<table>
<thead>
<tr>
<th>Series</th>
<th>No. of varieties</th>
<th>Recommend pot size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Splash Select Hypoestes</td>
<td>4</td>
<td>Cell Pack, 3 ppp: 4-6 in./10-15 cm</td>
</tr>
<tr>
<td>Sapphire Lisianthus</td>
<td>4</td>
<td>4-6 in./10-15 cm</td>
</tr>
</tbody>
</table>

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.
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

Ballad F1
Height: 24 to 30 in./61 to 76 cm
Spread: 6 to 8 in./15 to 20 cm
Seed supplied as: Raw, Treated
Plug crop time: 2 to 3 weeks
Transplant to finish: 8 to 9 weeks
• Excellent florist gift item or indoor plant; also well-suited to warm landscape markets like Florida.
• Pollen-free, dwarf sunflower produces well-formed, 4 to 5-in./10 to 13-cm flowers.
• Flowers at short height under short days; under long Summer days, plants are taller without growth regulators.

Choco Sun
Height: 10 to 12 in./25 to 30 cm
Spread: 12 to 14 in./30 to 36 cm
Seed supplied as: Raw, 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: Raw, 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: Raw, Treated
Plug crop time: 2 to 3 weeks
Transplant to finish: 6 to 8 weeks
• Clear yellow-filled flowers make SunBuzz a real standout!
• Compact, smaller-leafed plants are more manageable and programmable on the bench, and more appealing in the store.
• Delivers better seed uniformity and needs fewer PGRs than similar varieties.
• Fast flowering and a compact habit.

<table>
<thead>
<tr>
<th>Series</th>
<th>Recommend pot size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballad</td>
<td>5 in./13 cm, Gallon</td>
</tr>
<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>
QUALITY BY DESIGN

The BloomStudios brand includes high-quality cut flowers developed through innovative breeding for the professional florist market. Commercial cut flower growers around the globe count on our outstanding, high-quality varieties that ship and store exceptionally well... create better arrangements... and ultimately delight the consumer. BloomStudios varieties feature strong stems, bold colours and unique appeal for cut flower bouquets and grower bunches throughout the world.
ANEMONE

Anemone coronaria

Mona Lisa® Series F₁

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 22 to 44 plants/sq. metre (2 to 4 plants/sq. foot).
Usage: Focal
Stem Length: 18 in./46 cm
Bloom Size: 4 to 4.5 in./10 to 11 cm

The large, bright blooms of Mona Lisa Anemone are a masterpiece in any bouquet. Mona Lisa varieties produce up to 18 flowers per plant and are best grown cool without the need for supplemental light. Low temperatures (8 to 12°C/46 to 54°F) promote optimum stem length.

Harvest Recommendation: Harvest when flower buds are fully coloured and about 30-40% open/cupped stage. Avoid harvesting fully open flowers with pollen shed.

Post-Harvest Recommendation: Avoid ethylene exposure; an ethylene-inhibiting treatment is recommended. Hydrate and store in cooler at 1-3°C (34-38°F) in commercial floral solution at recommended rates.

Vase Life Recommendation: 5-7 days

Mixture Deep Blue, Orchid Shades, Pink, Red Bicolor, Scarlet Eye, White and Wine White Bicolor.

ASCLEPIAS

Asclepias curassavica

Silky Series

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel, Field
Planting Density: 22 to 32 plants/sq. metre (2 to 3 plants/sq. foot).
Usage: Filler
Stem Length: 24 to 28 in./61 to 71 cm

High-quality series is bred for greenhouse and outdoor field production.

Harvest Recommendation: Harvest early in the day when 50-65% of flowers are open. Do not sear the stems in hot water as you would do with other Asclepias.

Post-Harvest Recommendation: After harvest, change solutions 2-3 times to eliminate any latex exudate. Holding solution is optional. Avoid ethylene exposure; an ethylene-inhibiting treatment is recommended. Store at 4-7°C (40-45°F). Transport in solution if possible.

Vase Life Recommendation: Consumer floral preservative recommended to keep water clear. Vase life 8-10 days.

Deep Red Golden yellow centres.
**CAMPANULA**

*Campanula medium*

**Campana Series F1**

- **Form Supplied As:** Pelleted
- **Cultivation Type:** Greenhouse, High Tunnel
- **Planting Density:** 64 to 80 plants/sq. metre (6 to 8 plants/sq. foot).
- **Usage:** Line, Secondary
- **Stem Length:** 30 to 34 in./76 to 86 cm

Top-quality professional cut flower series is a low-energy crop, suitable for Summer or Winter production. See Technical Resources at bloomstudios.com for daylength requirements. Well-matched across the series for timing and habit, Campana delivers strong stems, good foliage and excellent uniformity.

- **Harvest Recommendation:** Harvest stems when two to three flowers are fully open.
- **Post-Harvest Recommendation:** Using cool water, use a hydrating solution upon harvest. Move to a holding solution and store at 2°C (36°F). Avoid ethylene exposure; an ethylene-inhibiting treatment is recommended.
- **Vase Life Recommendation:** Commercial preservative is recommended. Vase life up to 10 days.

**CARTHAMUS**

*Carthamus tinctorius*

**Grenade Orange**

- **Form Supplied As:** Coated
- **Cultivation Type:** High Tunnel, Field
- **Planting Density:** 40 to 62 plants/sq. metre (4 to 6 plants/sq. foot).
- **Usage:** Filler
- **Stem Length:** 32 to 40 in./81 to 102 cm

Features thornless leaves and round flower buds atop stems of uniform length. Best grown as a direct-sown crop, in field and high tunnel applications. Good for fresh and dried use; can also be used green when harvested young.

- **Harvest Recommendation:** Harvest when flowers are starting to open for blooming use. Cut stems young/green for use as green filler.
- **Post-Harvest Recommendation:** Hydration solution followed by holding solution. Short-term cold storage at 2-4°C (35-40°F) is tolerated. Not ethylene sensitive.
- **Vase Life Recommendation:** 5-8 days

**CELOSIA**

*Celosia cristata (Cockscomb)*

**Spring Green**

- **Form Supplied As:** Pelleted
- **Cultivation Type:** Greenhouse, High Tunnel
- **Planting Density:** 64 to 80 plants/sq. metre (6 to 8 plants/sq. foot).
- **Usage:** Secondary
- **Stem Length:** 40 to 48 in./102 to 122 cm

Programmable production and 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.

- **Harvest Recommendation:** Harvest stems as crest is almost completely full.
- **Post-Harvest Recommendation:** Strip 50-75% foliage. Use distilled water; no need for hydration or holding solutions. Avoid cold storage if possible.
- **Vase Life Recommendation:** 7-14 days

---

Find product & growing info at panamseed.com / CELOSIA 177
CELOSIA CRISTATA continued

Neo™ Series

Form Supplied As: Pelleted
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 64 to 80 plants/sq. metre (6 to 8 plants/sq. foot).
Usage: Secondary
Stem Length: 28 to 40 in./71 to 102 cm

Harvest Recommendation: Harvest stems as crest is almost completely full.
Post-Harvest Recommendation: Strip 50-75% foliage. Use distilled water; no need for hydration or holding solutions. Avoid cold storage if possible.
Vase Life Recommendation: 7-14 days

Grow your margin, grow your sales
Neo lets you grow over a longer period through the year and yield more usable stems from every sq. metre/sq. foot. Ship out better quality C. cristata and give florists a product that’s easier to arrange and easier to sell. Less long-day sensitive, making it easier to produce over a longer period during the year for most growers. Features unique colours and a much better leaf habit. Easier to work with for bouquets or flower arrangements due to smaller leaves.

Gold EU PBR 46508
Orange EU PBR 44055
Pink EU PBR 43694
Red EU PBR 46509
Rose EU PBR 43693

Gold Deepest yellow colour available on the market. NOTE: More sensitive to fusarium wilt compared to the rest of the series.
Orange Unique colour for the market will stir up interest for growers, retailers and florists.
Pink Beautiful dark-stemmed variety, with slightly smaller bloom. 7-11 weeks transplant to finish.
Red Slightly shorter stem length. 9-13 weeks transplant to finish.
Rose The tallest of the series, with bigger flower heads. 9-13 weeks transplant to finish.

CELOSIA / Request your Product Information Guide for full culture details
CELOSIA
Celosia plumosa

Sunday™ Series

Form Supplied As: Pelleted

Cultivation Type:
Greenhouse, High Tunnel, Field

Planting Density: 64 to 80 plants/sq. metre (6 to 8 plants/sq. foot).

Usage: Secondary

Stem Length:
28 to 40 in./71 to 102 cm

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 vase life.

Harvest Recommendation:
Harvest stems as plume is 90-100% developed.

Post-Harvest Recommendation:
Strip 50-75% foliage. Use distilled water; no need for hydration or holding solutions. Avoid cold storage if possible.

Vase Life Recommendation:
7-14 days

Mixture Mix of Dark Pink, Orange, Bright Pink, Cherry, Purple and Gold.

Find product & growing info at panamseed.com / CELOSIA 179
CELOSIA
Celosia spicata

Celway™ Series

Form Supplied As: Pelleted
Cultivation Type: Greenhouse, High Tunnel, Field
Planting Density: 64 to 80 plants/sq. metre (6 to 8 plants/sq. foot).
Usage: Filler
Stem Length: 40 to 48 in./102 to 122 cm

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 shipability.

Harvest Recommendation: Harvest stems when more than half of the flowers are completely open.

Post-Harvest Recommendation: Strip 50-75% foliage. Use distilled water; no need for hydration or holding solutions. Avoid cold storage if possible.

Vase Life Recommendation: 7-14 days

Purple, Terracotta and White offer great field production.

Purple
Terracotta
Red
Salmon
White
Mixure
DELPHINIUM
*Delphinium elatum*

**Guardian Series F₁**

*Form Supplied As:* Raw  
*Cultivation Type:* Greenhouse, High Tunnel, Field  
*Planting Density:* 25 to 45 plants/sq. metre (2 to 4 plants/sq. foot).  
*Usage:* Line  
*Stem Length:* 30 to 39 in./76 to 99 cm

Guardian is an F₁ hybrid *delphinium elatum* that delivers programmable and reliable yields of stems.  
**Harvest Recommendation:** Harvest stems when the first 1 to 2 flowers are fully open. For local markets, harvest when 30% of florets have opened.  
**Post-Harvest Recommendation:** Delphinium are highly sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product immediately after harvest. Hydrate and store in a cooler at 1-3°C (34-38°F) in a commercial floral holding solution at the manufacturer recommended rate.

DELPHINIUM
*Delphinium x belladonna*

**Blue Donna**

*Form Supplied As:* Raw  
*Cultivation Type:* Greenhouse, High Tunnel, Field  
*Planting Density:* 9 to 18 plants/sq. metre (1 to 2 plants/sq. foot).  
*Usage:* Line  
*Stem Length:* 32 to 40 in./81 to 102 cm

Blue Donna is great for producing deep blue flowers during the warmer periods of growing.  
**Harvest Recommendation:** Harvest stems when 75-80% of the florets have opened.  
**Post-Harvest Recommendation:** Delphinium are highly sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product immediately after harvest. Hydrate and store in a cooler at 1-3°C (34-38°F) in a commercial floral holding solution at the manufacturer recommended rate.
DIANTHUS
Dianthus barbatus interspecific
Amazon™ Series F₁

Form Supplied As: Pelleted
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 40 plants/sq. metre (3 to 4 plants/sq. foot).
Usage: Filler, Secondary
Stem Length: 18 to 36 in./46 to 91 cm

Harvest Recommendation: Harvest stems when 50% of florets have opened.
Post-Harvest Recommendation: Dianthus are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

ASCFG 2004 Cut Flower of the Year!

New Lavender Magic
Florets open white and gradually transition to lavender, providing the magic! For best colour, grow under glass or direct sunlight. Plastic covering will result in more muted colouration.

Neon Duo Mix of Neon Cherry and Neon Purple.

Rose Magic Blooms start white and age to pink, then to deep rose; all colours show on individual flower heads.

Dependable performance... by the bunch!
Versatile and programmable, Amazon can be produced year-round without vernalisation and is the best dianthus for warmer production seasons. Whether you’re looking for a high-appeal filler for bouquets or an exceptional product for grower bunches, Amazon is the one you want!
**DIANTHUS**
*Dianthus barbatus*

**Sweet™ Series F1**

**Form Supplied As:** Pelleted

**Cultivation Type:** Greenhouse, High Tunnel

**Planting Density:** 64 plants/sq. metre (6 plants/sq. foot).

**Usage:** Filler, Secondary

**Stem Length:** 18 to 36 in./46 to 91 cm

Versatile and programmable series can be produced without vernalisation and is the best dianthus for cooler production seasons. A top-notch filler series that features large, long-lasting blooms on strong stems.

**Harvest Recommendation:** Harvest stems when 20-50% of florets are open.

---

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

**Neon Purple**
Bright purple colour really pops in bouquets.

**Rose Magic**
Flowers open white, change to pink, and then mature to a rich rose for a tricolour look on the stem. Similar to the pattern of the very popular Amazon Rose Magic.

**White**
Pure white with no grey anthers.

**Mixture** Includes Black Cherry, Purple White Bicolor and White.

---

**Post-Harvest Recommendation:** Dianthus are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

**New Cherry** Adding an additional red colour to the assortment, this bright cherry-red colour is a good fit between Scarlet and Red.

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

**Scarlet** Royal Horticultural Society Award of Garden Merit

---

**Find product & growing info at panamseed.com** / **DIANTHUS 183**
GOMPHRENA
*Gomphrena haageana*

QIS Series

**Form Supplied As:** Raw

**Cultivation Type:** High Tunnel, Field

**Planting Density:** 11 to 21 plants/sq. metre (1 to 2 plants/sq. foot).

**Usage:** Filler

**Stem Length:** 24 to 26 in./61 to 66 cm

Vivid colour range makes these a first-class professional cut flower for greenhouse and outdoor production; suited to fresh and dried use.

**Harvest Recommendation:** Harvest when flowers are in colour and head is rounded, but before heads elongate.

**Post-Harvest Recommendation:** Good-quality, clean water. No additional benefits from use of commercial floral solutions. Store at 3-4°C (36-41°F) if necessary for less than 7 days for best performance.

**Vase Life Recommendation:** 14-16 days

---

GOMPHRENA
*Gomphrena pulchella*

**Fireworks**

**Form Supplied As:** Coated

**Cultivation Type:** Greenhouse, High Tunnel, Field

**Planting Density:** 11 plants/sq. metre (1 plant/sq. foot).

**Usage:** Filler

**Stem Length:** 36 to 48 in./91 to 122 cm

Vigorous, “tough as nails” plants are productive and make an excellent filler flower for mixed bouquets, fresh or dried. Easy to produce and suitable for field production.

**Harvest Recommendation:** Harvest when flower heads are sized up and in colour.

**Post-Harvest Recommendation:** Good-quality, clean water. No additional benefits from use of commercial floral solutions. Store at 3-4°C (36-41°F) if necessary for less than 7 days for best performance.

**Vase Life Recommendation:** 14-16 days

---

GRASS PANICUM
*Panicum capillare*

**Frosted Explosion**

**Form Supplied As:** Multi-Seed Pellets

**Cultivation Type:** Greenhouse, High Tunnel, Field

**Planting Density:** 25 to 32 plants/sq. metre (2 to 3 plants/sq. foot).

**Usage:** Filler

**Stem Length:** 24 to 30 in./61 to 76 cm

This easy-to-grow grass adds a delicate texture to any bouquet. Dries well. Facultative short-day flowering response; see bloomstudios.com technical resources for key growing tips.

**Harvest Recommendation:** Harvest stems when panicles are tufted green all the way to fully exploded and bronze tinged.

**Post-Harvest Recommendation:** Use a sharp cut and place stems in a holding solution after harvest.

**Vase Life Recommendation:** 10-14 days

First place winner, filler category at ProFlora 2019! ASCFG 2010 Dried Cut Flower of the Year!
LIMONIUM (STATICE)
Limonium sinuatum

**QIS Series**

**Form Supplied As:** Raw

**Cultivation Type:** High Tunnel, Field

**Planting Density:** 10 to 20 plants/sq. metre (1 to 2 plants/sq. foot).

**Usage:** Filler

**Stem Length:** 30 to 35 in./76 to 89 cm

Widely recommended by professional cut flower growers in the world, QIS (“Quality in Seed”) is a considerable improvement over standard seed varieties in uniformity, colour, flower size and stem quality. Produces clouds of tiny, non-shattering flowers. Delivers shipability and long vase life. Popular for both fresh and preserved cut flower production. Stiff stems do not require netting.

**Harvest Recommendation:** Harvest stems when 50% or more of florets are open, and sepals are coloured.

**Post-Harvest Recommendation:** Harvested stems should be placed in a hydration solution, then moved to a holding solution for best performance. Ethylene-inhibiting treatments are recommended. Make sure moisture on the stems is dried off prior to storage to prevent Botrytis. Store at 3-5°C (36-41°F).

**Vase Life Recommendation:** Vase life average 8 days.

**Mixture** Includes Dark Blue, Pale Blue, Rose, White and Yellow.

**DOUBLE FLOWERED LISIANTHUS**

**Eustoma grandiflorum**

**Flare Series F1**

**Form Supplied As:** Pelleted

**Cultivation Type:** Greenhouse, High Tunnel

**Planting Density:** 65 to 85 plants/sq. metre (6 to 8 plants/sq. foot).

**Usage:** Focal, Secondary

**Stem Length:** 36 to 45 in./91 to 114 cm

(Group 1.5-2) Flare Lisianthus has medium, double flowers, with a top-flowering habit ideal for use in bouquets. The series has been bred and selected for reduced sensitivity to rosetting, resulting in less risk in production.

**Harvest Recommendation:** Harvest when the first flower has fully opened.

**Post-Harvest Recommendation:** Hydrate flowers with a floral hydration solution for one hour at room temperature. Store in a cooler at 2-5°C (36-41°F) in a commercial floral holding solution at the manufacturer recommended rates.

**Vase Life Recommendation:** 10-14 days

**Can Can Series F1**

**Form Supplied As:** Pelleted

**Cultivation Type:** Greenhouse, High Tunnel

**Planting Density:** 65 to 85 plants/sq. metre (6 to 8 plants/sq. foot).

**Usage:** Focal, Secondary

**Stem Length:** 36 to 114 cm

(Group 2-2.5) Can Can Lisianthus has medium, double flowers with a top-flowering habit ideal for use in bouquets. It is a group 2-2.5, later-flowering version of the popular Flare series, which is group 1.5-2.

**Harvest Recommendation:** Harvest when the first flower has fully opened.

**Post-Harvest Recommendation:** Hydrate flowers with a floral hydration solution for one hour at room temperature. Store in a cooler at 2-5°C (36-41°F) in a commercial floral holding solution at the manufacturer recommended rates.

**Vase Life Recommendation:** 10-14 days

**Can Can Purple Lisianthus**

**Can Can Carmine Rose Lisianthus**
ABC™ Series F1

Form Supplied As: Pelleted

Cultivation Type: Greenhouse, High Tunnel

Planting Density: 65 to 85 plants/sq. metre (6 to 8 plants/sq. foot).

Usage: Focal

Stem Length: 36 to 45 in./91 to 114 cm

ABC lisianthus have large double flowers and are ideally suited to tunnel and outdoor production. They have been bred and selected for reduced sensivity to rosetting, resulting in less risk in production.

Harvest Recommendation: Harvest when the first flower has fully opened.

Post-Harvest Recommendation: Hydrate flowers with a floral hydration solution for one hour at room temperature. Store in a cooler at 2-5°C (36-41°F) in a commercial floral holding solution at the manufacturer recommended rates.

Vase Life Recommendation: 10-14 days
2 Blue Rim
2 Lavender
2 Purple
2 Misty Pink
2 Yellow
2 Rose
2 Blue
2 Misty Blue
2 Rose
3 Purple
3 Rose
3 White
MATRICARIA (TANACETUM)
Tanacetum parthenium

Vegmo Series

Form Supplied As: Pelleted
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 72 to 80 plants/sq. metre (7 to 8 plants/sq. foot).
Usage: Filler
Stem Length: 28 to 36 in./71 to 91 cm

Fast year-round crop with good uniform stems. Popular filler flower with good post-harvest life.
Harvest Recommendation: Harvest when stem has 65-75% of flowers open.
Vase Life Recommendation: Vase life average 11 days.
Also available: Yellow

Aida Series

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 64 plants/sq. metre (6 plants/sq. foot).
Usage: Line
Stem Length: 32 in./81 cm

Aida is a seedling selectable type matthiola, resulting in maximum yield. It is best for production under moderate temperatures and light levels.
Harvest Recommendation: Harvest when 3-5 florets have opened.
Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.
Vase Life Recommendation: 5-8 days

NORTHERN GREENHOUSE SELECTABLE MATTHIOILA (STOCK)
Matthiola incana

Figaro Series

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 64 plants/sq. metre (6 plants/sq. foot).
Usage: Line
Stem Length: 30 in./76 cm

Figaro is a seedling selectable type matthiola, resulting in maximum yield. It is best for production under cooler temperatures and lower light.
Harvest Recommendation: Harvest when 3-5 florets have opened.
Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.
Vase Life Recommendation: 5-8 days

Also available: Yellow

Aida White Matthiola
Aida Apricot Matthiola
Aida Purple Matthiola
Figaro Lavender Matthiola
Figaro Light Rose Matthiola
Aida Series
Figaro Series
Vegmo Sunny Ball Matricaria
Figaro Light Rose Matthiola
**Mathilda™ Series**

**Form Supplied As:** Raw

**Cultivation Type:** Greenhouse, High Tunnel

**Planting Density:** 64 plants/sq. metre (6 plants/sq. foot).

**Usage:** Line

**Stem Length:**
25 to 32 in./64 to 81 cm

Mathilda is a seedling selectable type matthiola, resulting in maximum yield. It is the newest breeding in this type and offers a highly uniform series for production under moderate temperatures and light levels.

**Harvest Recommendation:**
Harvest when 3-5 florets have opened.

**Post-Harvest Recommendation:**
Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

**Vase Life Recommendation:**
5-8 days

- **Blue** Improvement over Aida Blue.
- **Lavender** Intense lavender colour.
- **Pink** Slightly taller than White and Yellow.
- **Yellow** Offers the best selectable yellow variety, with consistent, uniform colour.

Find product & growing info at panamseed.com / MATTHIOLA 189
Opera Series

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 64 plants/sq. metre (6 plants/sq. foot).
Usage: Line
Stem Length: 32 in./81 cm

Opera is a seedling selectable type Matthiola, resulting in maximum yield. It is best for production under moderate temperatures and light levels.

Harvest Recommendation: Harvest when 3-5 florets have opened.
Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

Vase Life Recommendation: 5-8 days

Tosca Series

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 64 plants/sq. metre (6 plants/sq. foot).
Usage: Line
Stem Length: 24 to 32 in./61 to 81 cm

Tosca is a seedling selectable type Matthiola, resulting in maximum yield. It requires less cold during bud formation, resulting in a more programmable series in warmer conditions.

Harvest Recommendation: Harvest when 3-5 florets have opened.
Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

Vase Life Recommendation: 5-8 days
TRADITIONAL FIELD-GROWN
MATTHIOLA (STOCK)
Matthiola incana

Column Stock Series

Form Supplied As: Raw
Cultivation Type: Field
Planting Density: 2.5 kg/hectare (2.2 lbs./acre).
Usage: Line
Stem Length: 24 to 30 in./61 to 76 cm

Column Stock will produce approximately 50% double-flowering plants. It is best suited for field production in mild climates.

Harvest Recommendation: Harvest when 3-5 florets have opened.

Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

Vase Life Recommendation: 5-8 days
Katz Hi Double White

Form Supplied As: Raw
Cultivation Type: High Tunnel, Field
Planting Density: 26 plants/sq. metre (12 plants/sq. foot)
Usage: Line
Stem Length: 32 in./81 cm

Katz Hi Double Matthiola will produce approximately 90% double-flowering plants. It requires less cold during bud formation, resulting in a more programmable series in warmer conditions.

Harvest Recommendation: Harvest when 3-5 florets have opened.

Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

Vase Life Recommendation: 5-8 days

More usable stems
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.

Katz Blue

Katz Cherry Blossom

Katz Series

Form Supplied As: Raw
Cultivation Type: High Tunnel, Field
Planting Density: 126 plants/sq. metre (12 plants/sq. foot)
Usage: Line
Stem Length: 32 in./81 cm

Katz Matthiola will produce approximately 50% double-flowering plants. It requires less cold during bud formation, resulting in a more programmable series in warmer conditions.

Harvest Recommendation: Harvest when 3-5 florets have opened.

Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.

Vase Life Recommendation: 5-8 days

Cherry Blossom ASCFG 2013
Fresh Cut Flower of the Year!
SEEDLING SELECTABLE MATTHIOLA (STOCK)

New Centum™ Series

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 64 plants/sq. metre (6 plants/sq. foot).
Usage: Line
Stem Length: 25 to 32 in./64 to 81 cm

Centum is a seedling selectable type matthiola, resulting in maximum yield of high-quality, fully double stems. Our selection of Centum has had consistent breeding for improvement and stock seed selection, which has resulted in more uniform populations and phenotypic purity over competing sources. Centum is a Group 2, Spring Flowering type that tolerates transitional temperatures from Spring into early Summer; it delivers sturdy spikes and heavy stems across a full colour range.

Harvest Recommendation: Harvest when 3-5 florets have opened.
Post-Harvest Recommendation: Matthiola are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product. Hydrate and store in a cooler at 1-3°C (34-38°F) in commercial floral holding solution at the manufacturer recommended rates.
Vase Life Recommendation: 5-8 days
SNAPDRAGON
Antirrhinum majus

Maryland Series F₁

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 85 to 106 plants/sq. metre (8 to 10 plants/sq. foot).
Usage: Line
Stem Length: 39 to 60 in./99 to 152 cm

Maryland is a group 2 snapdragon best for short days, moderate light levels and temperatures of 10-13°C (50-55°F).

Harvest Recommendation: Harvest stems when 5-6 florets have opened. Keep snapdragons vertical after harvest to prevent stems from curling.

Post-Harvest Recommendation: Snapdragons are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product after harvest. Hydrate and store in a cooler at 2-5°C (36-41°F) in commercial floral holding solution at the manufacturer recommended rates. Always keep snapdragon stems vertical during storage.

Vase Life Recommendation: 7-10 days

Flamingo Bright salmon-rose.
Yosemite Pink Darker than True Pink.
Also available: Ivory (1,2)
Early Potomac™ Series F1

**Form Supplied As:** Raw

**Cultivation Type:** Greenhouse, High Tunnel

**Planting Density:** 106 to 128 plants/sq. metre (10 to 12 plants/sq. foot).

**Usage:** Line

**Stem Length:** 39 to 60 in./99 to 152 cm

Early Potomac is a group 3 snapdragon best for moderate daylength, moderate to high light levels and temperatures of 13-16°C (55-60°F).

**Harvest Recommendation:** Harvest stems when 5-6 florets have opened. Keep snapdragons vertical after harvest to prevent stems from curling.

**Post-Harvest Recommendation:** Snapdragons are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product after harvest. Hydrate and store in a cooler at 2.5°C (36-41°F) in commercial floral holding solution at the manufacturer recommended rates. Always keep snapdragon stems vertical during storage.

**Vase Life Recommendation:** 7-10 days

**Potomac™ Series F1**

**Form Supplied As:** Raw

**Cultivation Type:** Greenhouse, High Tunnel

**Planting Density:** 106 to 128 plants/sq. metre (10 to 12 plants/sq. foot).

**Usage:** Line

**Stem Length:** 39 to 60 in./99 to 152 cm

Potomac is a group 4 snapdragon best for long days, high light and temperatures greater than 16°C (60°F).

**Harvest Recommendation:** Harvest stems when 5-6 florets have opened. Keep snapdragons vertical after harvest to prevent stems from curling.

**Post-Harvest Recommendation:** Snapdragons are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product after harvest. Hydrate and store in a cooler at 2.5°C (36-41°F) in commercial floral holding solution at the manufacturer recommended rates. Always keep snapdragon stems vertical during storage.

**Vase Life Recommendation:** 7-10 days

**Appleblossom**
White and rose bicolour.

**Ivory White**
White with yellow bee.

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.
Monaco is a group 3 snapdragon best for moderate daylength, moderate light levels and temperatures of 10-13°C (50-55°F).

**Harvest Recommendation:**
Harvest stems when 5-6 florets have opened. Keep snapdragons vertical after harvest to prevent stems from curling.

**Post-Harvest Recommendation:**
Snapdragons are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product after harvest. Hydrate and store in a cooler at 2-5°C (36-41°F) in commercial floral holding solution at the manufacturer recommended rates. Always keep snapdragon stems vertical during storage.

**Vase Life Recommendation:**
7-10 days
Cool Series F1

Form Supplied As: Raw
Cultivation Type: Greenhouse, High Tunnel
Planting Density: 85 to 106 plants/sq. metre (8 to 10 plants/sq. foot).
Usage: Line
Stem Length: 39 to 60 in./99 to 152 cm

Cool is a group 1 snapdragon best for short daylength, low light intensity and temperatures of 7-10°C (40-50°F).

Harvest Recommendation: Harvest stems when 5-6 florets have opened. Keep snapdragons vertical after harvest to prevent stems from curling.

Post-Harvest Recommendation: Snapdragons are sensitive to ethylene; it is recommended to treat with an ethylene-inhibiting product after harvest. Hydrate and store in a cooler at 2-5°C (36-41°F) in commercial floral holding solution at the manufacturer recommended rates. Always keep snapdragon stems vertical during storage.

Vase Life Recommendation: 7-10 days

TRACHELIUM
Trachelium caeruleum

Lake Series

Form Supplied As: Pelleted
Cultivation Type: Greenhouse
Planting Density: 11 plants/sq. metre (1 plant/sq. foot).
Usage: Filler
Stem Length: 30 to 42 in./76 to 107 cm

The Lake collection from seed offers simplified ordering and production. Lake varieties produce large central flower umbels with small satellites. See technical resources at bloomstudios.com for daylength requirement.

Harvest Recommendation: Harvest stems when half or more of florets are open.

Post-Harvest Recommendation: Clear water or a holding solution are preferred. Store at 4°C (40°F). Avoid exposure to ethylene, and use of an ethylene-inhibiting treatment is recommended.

Vase Life Recommendation: Vase life average 11 days. Extended cold storage will decrease vase life.
TABLETOP PLANTS BRING OUTDOOR FLAVOURindoors!

For compact-growing vegetable plants that provide a space-saving option for consumers without a large space for a garden, Kitchen Minis™ tabletop veggies are the perfect solution. With tomatoes, sweet and hot peppers, and a brand-new cocktail cucumber, the Kitchen Minis collection brings home gardening success and fresh vegetable flavour to your kitchen counter or windowsill. We also offer expert culture recommendations and growing tips to help you grow your best.
MINI POTTED CUCUMBER  
*Cucumis sativus*

**New Quick Snack**

- **Height:** 20 to 24 in./51 to 61 cm
- **Spread:** 15 to 20 in./38 to 51 cm
- **Seed supplied as:** Raw
- **Class:** Cocktail
- **Flower Type:** Parthenocarpic
- **Fruit Characteristics:** Dark green skin, smooth
- **Fruit Size:** 1.5-2.5 in./4-6 cm long x 1 in./3 cm wide
- **Days to maturity from direct seed:** 38-45
- **Plug crop time:** direct sow 3-4 weeks, or 128 cell tray 1-2 weeks
- **Potting to sale:** 6 weeks
- **Pot size:** 6-8 in./15-20 cm

- Plants benefit from being trellised to keep upright and pinched when plant reaches top of trellis.
- Deliciously crisp and sweet cucumbers for your recipes! Eat fresh off the plant, or add to a vegetable platter or fresh salad.
- Produces handfuls of small, cocktail-sized cucumbers over a few weeks.
- Parthenocarpic variety will set fruit without a pollinator! Perfect for growing indoors or on a balcony. If grown on its own, fruit will be seedless. If grown next to other cucumbers with male flowers, there is potential to set seed.
- Be sure to place it in a location with high light and keep well-watered to allow fruit to mature.
- For best flavour, pick when fruit is 1.5-2.5 in./4 to 6 cm long.
### Mini Potted Tomato
**Solanum lycopersicum** *(Lycopersicon esculentum)*

**Seed supplied as:** Raw

Plant benefits from being grown dry. Support fruit weight by inserting sticks close to the central stem at the time of flowering. Ship with some ripe fruit.

<table>
<thead>
<tr>
<th>Name</th>
<th>Fruit characteristics</th>
<th>Growth</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHERRY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocoa F1</td>
<td>Dark red</td>
<td>CD</td>
<td>2-3</td>
<td>10-12</td>
<td>4-6 in./10-15 cm</td>
<td>Cocoa will brighten up your windowsill or patio table, and it has a tidy plant habit. Cocoa provides uniquely burgundy-coloured fruit that is deliciously sweet for your recipes!</td>
</tr>
<tr>
<td>Red Velvet F1</td>
<td>Red</td>
<td>CD</td>
<td>2-3</td>
<td>10-12</td>
<td>4-6 in./10-15 cm</td>
<td>Red Velvet will brighten up your windowsill or patio table, and it has a tidy plant habit. Red Velvet provides beautiful red-coloured fruit that is deliciously sweet for your recipes!</td>
</tr>
<tr>
<td>Siam F1</td>
<td>Bright red</td>
<td>CD</td>
<td>2-3</td>
<td>10-12</td>
<td>6-8 in./15-20 cm</td>
<td>Siam will brighten up your windowsill or patio table, and provides deliciously sweet fruit for your recipes! With Siam, you’ll enjoy handfuls of fruit over a few weeks.</td>
</tr>
</tbody>
</table>

CD: compact, determinate.
**MINI EDIBLE POTTED PEPPER**

*Capsicum annuum*

**Seed supplied as:** Raw

Pepper plants are ready to place inside on a sunny counter or windowsill, or outside on a patio table. They are ideally sold with some ripe fruit – ‘ready-to-harvest’. They continue to produce tasty vegetables over 4 to 6 weeks.

<table>
<thead>
<tr>
<th>Name</th>
<th>Fruit characteristics</th>
<th>Plug crop time (weeks)</th>
<th>Potting to sale (weeks)</th>
<th>Pot size</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HOT</strong> Cosmo</td>
<td>Blunt conical, purple to red 2 in./5 cm long x 0.75 in./2 cm wide</td>
<td>3-4</td>
<td>16-18</td>
<td>6-8 in./15-20 cm</td>
<td>Brilliant purple, snack-sized fruit turns red when fully mature. Use fresh or cooked to add a medium amount of spice to any dish.</td>
</tr>
<tr>
<td><strong>HOT</strong> Hot Burrito</td>
<td>Blunt, upright, conical, light green to red 4 in./10 cm long x 0.75 in./2 cm wide</td>
<td>3-4</td>
<td>14-16</td>
<td>6-8 in./15-20 cm</td>
<td>Lime-green fruit will ripen to bright red for a colourful display of fruit on top of the foliage. Broad, conical fruit is mildly spicy and great for adding to a sauce or slow-cooking with braised savoury dishes.</td>
</tr>
<tr>
<td><strong>HOT</strong> Hot Fajita</td>
<td>Medium chili, light green to red 4 in./10 cm long x 0.5 in./1 cm wide</td>
<td>3-4</td>
<td>14-16</td>
<td>6-8 in./15-20 cm</td>
<td>Upright plant habit will show off eye-catching lime-green fruit that ripens to bright red. The long, tapered peppers are fleshy and spicy, perfect for cooking.</td>
</tr>
<tr>
<td><strong>HOT</strong> Hot Lemon Zest</td>
<td>Habanero, green to yellow 1 in./3 cm long x .5 in./1 cm wide</td>
<td>3-4</td>
<td>15-17</td>
<td>6-8 in./15-20 cm</td>
<td>Don’t be fooled by the gorgeous lemon-yellow fruit; these peppers pack a punch of heat. Small, teardrop-shaped peppers are great for spicing up a salsa or hot sauce!</td>
</tr>
<tr>
<td>Name</td>
<td>Fruit characteristics</td>
<td>Plug crop time (weeks)</td>
<td>Potting to sale (weeks)</td>
<td>Pot size</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tamale</td>
<td>Blunt conical, green to red 2 in./5 cm long x 0.75 in./2 cm wide</td>
<td>3-4</td>
<td>14-16</td>
<td>4.6 in./10-15 cm</td>
<td>Jazz up your tamales and enchiladas with this crisp, juicy, thick-walled pepper with a mild, spicy flavour. Dark green fruit ripens to bright red and hangs down on a medium-sized plant.</td>
</tr>
<tr>
<td>Taquito</td>
<td>Small, upright, chili, green to red 1.5 in./4 cm long x 0.3 in./1 cm wide</td>
<td>3-4</td>
<td>15-17</td>
<td>3-4 in./8-10 cm</td>
<td>This pint-sized pepper plant is perfect for a windowsill with decorative, upright, conical peppers and small foliage. Spicy fruit ripens from green to bright red and is great for adding to a stir-fry.</td>
</tr>
<tr>
<td>Fresh Bites</td>
<td>Crack, green to orange, red and yellow 2.25 in./6 cm long x 1.25 in./3 cm wide</td>
<td>3-4</td>
<td>15-17</td>
<td>5-6.5 in./13-17 cm</td>
<td>Deliciously sweet, thick-walled, vibrant red, orange and yellow snack peppers taste great eaten right off the plant, chopped up in a salad or grilled.</td>
</tr>
</tbody>
</table>

---

**SWEET**

Fresh Bites Series: Capsicum annuum

Find product & growing info at panamseed.com / MINI EDIBLE POTTED PEPPER 205
VEGETABLES & HERBS
FRESH IDEAS WITH GREAT TASTE

HandPicked Vegetables, our novel collection of high-quality vegetables and herbs, supplies the **flavour** and **harvests** to satisfy fresh market growers, farmstand shoppers and home gardeners. The varieties offer fresh, home-grown taste with **exceptional fruit quality**, earlier and longer harvests, and barrels of delicious produce. You’ll find expert growing information and best practices at [panamseed.com/vegetables](http://panamseed.com/vegetables).
**Name** | **Type** | **Fruit characteristics** | **Days to maturity from direct seed** | **Fruit size** | **Flower type** | **Disease resistance** | **Comments**
--- | --- | --- | --- | --- | --- | --- | ---
**GherKing F1** | European pickler | Dark green skin, highly spined | 55-60 | 3-5 in./8-13 cm long | Gynoecious, parthenocarpic | HR: CMV-1, S IR: DM, PM | Early, large yields of bitter-free fruit; won’t become bitter if left on the vine. Great for high-tunnel production and gardens lacking pollinators; vigorous vines are best when trellised. Cylindrical, dark green gherkins with white spines are perfect for pickling and fresh eating.

**Martini F1** | American slicer | White skin, slightly spined | 55-60 | 5-6 in./13-15 cm long x 1.5-2 in./4-5 cm wide | Monoecious | IR: PM | Features a non-yellowing, white exterior and earlier yields. Very tender, “no peel” skin if harvested at 5 to 6 in./13 to 15 cm length, with white, bitter-free interior that is very sweet and crunchy. Staying power in the heat of Summer. Best in-ground.

**Patio Snacker F1** | American slicer | Medium green skin, moderately spined | 50-55 | 6-8 in./15-20 cm long x 1.5-2 in./4-5 cm wide | Monoecious, parthenocarpic | Controlled yet vigorous variety produces short, branching vines. Fruit has good flavour, crunchy texture and non-bitter peel. High-yielding with continuous harvest. Great for large containers with a small trellis; works well in pack/pot programs.

Disease terminology: HR = High Resistance, IR = Intermediate Resistance
Disease codes: CMV-1 - Cucumber Mosaic Virus Race 1, DM - Downy Mildew, PM - Powdery Mildew, S - Scab
Flower Type: Gynoecious - predominantly female flowers, Monoecious - plants contain both male and female flowers, Parthenocarpic - plant has the ability to set fruit without pollination.
### EGGPLANT

*Solanum melongena*

Seed supplied as: Raw

<table>
<thead>
<tr>
<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>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asian Delite F1</strong></td>
<td>50-55</td>
<td>5-7 in./13-18 cm long (baby size)</td>
<td>Bright purple, elongated</td>
<td>Green and Black</td>
<td>Upright, semi-spineless</td>
<td>Slender, elongated eggplants are glossy with bright purple skin and white, tender, non-bitter flesh. Fruit can be sliced lengthwise for grilling or lightly frying, and tender skin does not need to be peeled. Sliced or diced fruit is great for a stir-fry or curry; its non-bitter flavour and tender texture will complement any sauce. Plants are upright and semi-spineless, so they are very easy and painless to harvest. Great in an in-ground garden or large container.</td>
</tr>
<tr>
<td><strong>Fairy Tale F1</strong></td>
<td>50-55</td>
<td>1-2 in./3-5 cm long (baby size)</td>
<td>Striped purple and white, elongated</td>
<td>Green</td>
<td>Upright, semi-spineless</td>
<td>Early-maturing, highly productive variety produces clusters of attractive white fruit with violet/purple stripes. Elongated tear-drop shaped fruit are sweet and non-bitter, with a tender skin and few seeds. Fruit can be harvested when very small or left on the plant until fully mature. Petite plant habit between 18 to 24 in. (46 to 61 cm) is perfect for growing in containers or small-space gardens, with or without support. All-America Selections Winner.</td>
</tr>
<tr>
<td><strong>Gretel F1</strong></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 Winner.</td>
</tr>
<tr>
<td><strong>Hansel F1</strong></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 Winner.</td>
</tr>
<tr>
<td><strong>Patio Baby F1</strong></td>
<td>40-45</td>
<td>2-3 in./5-8 cm long (baby size)</td>
<td>Purple, 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 Winner.</td>
</tr>
<tr>
<td>Name</td>
<td>Days to maturity from transplant</td>
<td>Fruit characteristics</td>
<td>Plant habit</td>
<td>Disease resistance</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------</td>
<td>-----------------------------------------------------------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>---------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>HOT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aji Rico F1</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 Winner. Also available as organic seed.</td>
<td></td>
</tr>
<tr>
<td>Cajun Belle</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 Winner.</td>
<td></td>
</tr>
<tr>
<td>Golden Cayenne</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, medium</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>
<td></td>
</tr>
<tr>
<td>La Bomba II F1</td>
<td>65-70 to full ripe, 50-55 to green</td>
<td>Jalapeño, green to red 2-3.25 in./5-9 cm long x 1-1.15 in./3 cm wide</td>
<td>Tall</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>
<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></td>
<td>Flat-disc peppers are crunchy and crisp, with a 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 Winner.</td>
<td></td>
</tr>
</tbody>
</table>
### Name

<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</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pot-a-peño F1</td>
<td>60-65 to full ripe, 45-50 to green</td>
<td>Jalapeño, green to red 3-4 in./8-10 cm long x 0.75-1.25 in./2-3 cm wide</td>
<td>Bush, compact, medium</td>
<td></td>
<td>Pot-a-Peño’s unique compact habit is perfect for patio containers. Early maturing means this will be one of the first peppers to fruit in the garden. Tons of jalapeño fruit grow under a dense canopy of small, dark green leaves. Harvest fruit green for a traditional spicy zip in any dish or allow to ripen to red for a sweet, spicy flavor. All-America Selections Winner.</td>
</tr>
<tr>
<td>Primero Red F1</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, vigorous</td>
<td>IR: 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. <strong>Also available as organic seed.</strong></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>
</tbody>
</table>

= mild, mild = mildly hot, medium = medium hot, = hot, +++++ = extra hot

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

Disease codes: BLS - Bacterial Leaf Spot, TMV - Tobacco Mosaic Virus, TSWV - Tomato Spotted Wilt Virus
<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>SWEET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peppi Cornissimo F1</td>
<td>95-100 to full ripe, 80-85 to green</td>
<td>Corno, green to red 6-7 in./15-18 cm long x 2.25-2.5 in./6 cm wide, 4-4.5 oz. (113 to 128 g)</td>
<td>Large, tall, vigorous</td>
<td></td>
<td>Extra-large corno-shaped fruit ripens from green to red, with outstanding thick walls, rich flavour and more sweetness than most large-fruited peppers. Fruit is often seedless, for less preparation time for chopping and cooking. Great on the grill or stuffed and baked in the oven. To produce seedless fruit, grow it in isolation from other (non-seedless) pepper varieties. If not isolated, it will produce larger, great-tasting fruit with just a few seeds. Best grown in-ground with support of stakes or a cage.</td>
</tr>
<tr>
<td>Peppi Red and Yellow F1</td>
<td>75-80 to full ripe, 55-60 to green</td>
<td>Red: Snack, green to red Yellow: Snack, green to yellow 3.5-4.5 in./9-11 cm long x 1.25-1.75 in./3-4 cm wide, 1-2 oz. (28-57 g)</td>
<td>Large, tall, vigorous</td>
<td></td>
<td>These small, pointed fruits offer incredible sweetness and rich flavour. The fruit are often seedless and are great for snacking fresh off the plant. To produce seedless fruit, grow it in isolation from other (non-seedless) pepper varieties. If it is not isolated, it will produce larger, great-tasting fruit with just a few seeds. Best grown in-ground with support of stakes or a cage.</td>
</tr>
<tr>
<td>Peppi Grande Red F1</td>
<td>80-85 to full ripe, 60-65 to green</td>
<td>Corno, green to red 5-6 in./13-15 cm long x 1.5-2 in./4-5 cm wide, 2.5-3.5 oz. (71-99 g)</td>
<td>Large, tall, vigorous</td>
<td></td>
<td>Corno-shaped pepper has outstanding crisp texture, rich flavour and more sweetness than large-fruited peppers. Fruit is often seedless, which means less preparation time for chopping and cooking; great on the grill or baked stuffed with cheese. To produce seedless fruit, grow it in isolation from other (non-seedless) pepper varieties. If it is not isolated, it will produce larger, great-tasting fruit with just a few seeds. Best grown in-ground with support of stakes or a cage.</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, 1-2 oz. (28-57 g)</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>
<tr>
<td>Name</td>
<td>Days to maturity from transplant</td>
<td>Fruit characteristics</td>
<td>Plant habit</td>
<td>Disease resistance</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------</td>
<td>-----------------------</td>
<td>-----------------</td>
<td>--------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>SWEET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Prism F1 Capsicum annuum</td>
<td>75-80 to full ripe, 60-65 to green</td>
<td>Midi bell, light green to red 2.25-2.5 in./5.6 cm long x 2.25-2.75 oz. (64 to 78 g)</td>
<td>Tall, upright</td>
<td>HR: BLS 0-3, 7, 8</td>
<td>Sweet midi bell matures from light green to orange, and then to red. Can be harvested at all stages of maturity for a multicoloured “mix” on each plant. Midi bell size is perfect for stuffed peppers, eating fresh in salads and recipes that call for a small portion of bell pepper. Early maturing and highly productive. Seed has a high germination rate and offers resistance to Bacterial Leaf Spot 0-3, 7 and 8.</td>
</tr>
<tr>
<td>Trailblazer F1 Capsicum annuum</td>
<td>70-75 to full ripe, 50-55 to green</td>
<td>Bell, green to yellow 3.5-3.75 in./9.0-10 cm long x 3.25-3.5 in./8.0-9 cm wide, 8-9 oz. (227 to 225 g)</td>
<td>Tall, upright</td>
<td>HR: BLS 0-3, 7, 8</td>
<td>Tall, upright plants yield early-maturing, vibrant yellow, medium-to-large, blocky bell peppers. Holds its yellow colour longer, so it is slower to turn gold/orange. Three to four-lobed fruit is perfect for stuffing. Sweet, bright flavour and thick-walled fruit add crunch to salads. Seed has a high germination rate and offers high disease resistance to Bacterial Leaf Spot 1-3, 7 and 8.</td>
</tr>
<tr>
<td>Candy Cane Chocolate Cherry F1 Capsicum annuum</td>
<td>70-75 to full ripe, 55-60 to green</td>
<td>Mini bell, green/white stripe to chocolate/ red stripe 3.5-3.75 in./9.0-10 cm long x 2.5-2.75 in./6.0-7 cm wide, 3.5-4.5 oz. (99 to 128 g)</td>
<td>Medium</td>
<td></td>
<td>Mini bell pepper plant has unique, eye-catching variegated foliage. Early-maturing fruit ripens from green and white stripes to unique chocolate and cherry red stripes. Sweet flavour and crisp texture make it perfect for fresh eating at any stage of ripeness. Best in containers or in-ground, with or without support.</td>
</tr>
<tr>
<td>Candy Cane Red F1 Capsicum annuum</td>
<td>60-65 to full ripe, 40-45 to green</td>
<td>Snack, green/white stripe to red 3.5-4 in./9.0-10 cm long x 1.25-1.75 in./3.0-4 cm wide</td>
<td>Medium</td>
<td></td>
<td>Snack pepper has unique, eye-catching variegated foliage, plus fruit that ripens 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>
</tbody>
</table>
**CHERRY**

<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>Artemis F1</td>
<td>50-55</td>
<td>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)</td>
<td>I</td>
<td>HR: LM, N, TMV, ToMV</td>
<td>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, including high tunnels.</td>
</tr>
<tr>
<td>Chocolate Sprinkles F1</td>
<td>50-55</td>
<td>Elongated, medium, dark red with green stripes 1.5 in./4 cm long x 1 in./3 cm wide</td>
<td>I</td>
<td>HR: F1, N</td>
<td>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. <strong>Also available as organic seed.</strong></td>
</tr>
<tr>
<td>Helix F1</td>
<td>50-55</td>
<td>Elongated, medium, bright red 1-1.4 in./3-4 cm long x 1 in./3 cm wide, 0.3-0.5 oz. (9 to 14 g)</td>
<td>I</td>
<td>HR: LB, N, TMV, ToMV</td>
<td>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.</td>
</tr>
<tr>
<td>Little Bing F1</td>
<td>60-65</td>
<td>Elongated, medium, red 1 in./3 cm long</td>
<td>CD</td>
<td>HR: F2, V</td>
<td>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.</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. <strong>Medal of Excellence Best Program</strong></td>
</tr>
</tbody>
</table>
### CHERRY

<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>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></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 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</td>
<td>The high-quality, crack-resistant, 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</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>
<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, Tidy Treats 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>
</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, LM - Leaf Mold, N - Nematodes, SL5 - 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>Topsy Tom F1</td>
<td>50-55</td>
<td>Round, medium, red</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</td>
<td>D</td>
<td></td>
<td>This superior variety for baskets and containers has a graceful, cascading habit. Prolific, extra-early plants produce up to 6 lbs./2.7 kg of very sweet cherry tomatoes.</td>
</tr>
<tr>
<td>Marzito F1</td>
<td>50-55</td>
<td>Elongated, mini marzano, red</td>
<td>I</td>
<td>HR: F1, LM, N, TMV, ToMV</td>
<td>Versatile and perfect for all occasions - eating fresh off the vine or cooking up in a quick sauce. The elongated shape is reminiscent of a small Roma tomato, which is great for cooking. The firm texture and sweet, rich flavour mean it can be eaten fresh like cherry and grape tomatoes. Great disease resistance, too! Resistant to leaf mold, Fusarium, nematodes and tobacco mosaic virus. Best grown in-ground, including high tunnels.</td>
</tr>
<tr>
<td>Sun Dipper F1</td>
<td>60-65</td>
<td>Elongated, pointed, orange</td>
<td>I</td>
<td>HR: F1, N, TMV</td>
<td>Sun Dipper is an orange “dipper” tomato with elongated fruit that is easily held between your fingers for dipping into dressing on a vegetable platter. This unique elongated fruit shape is eye-catching and delicious, and it’s perfect for differentiating vegetable programs at retail. Performs well in field production as well as high tunnels. Prune plant to 1 to 2 leaders to increase fruit size up to 3 to 4 in. (8 to 10 cm) long.</td>
</tr>
</tbody>
</table>
**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

---

**Name** | **Days to maturity from transplant** | **Fruit characteristics** | **Growth** | **Comments**
---|---|---|---|---
**CURRANT**
Candyland Red | 55-60 | Round, small, red 0.5 in./1 cm long x 0.5 in./1 cm wide | I | Stays compact and tidy, so it won’t take over like 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 Winner.*

---

**HEIRLOOM MARRIAGE™ COLLECTION**

Big Brandy F1 | 75-80 | Beefsteak, pink 12-15 oz. (340 to 425 g) | I | Big, pink fruit with outstanding flavour is a cross of Big Dwarf and Brandywine. Best in-ground.

Cherokee Carbon F1 | 75-80 | Beefsteak, purple 10-12 oz. (283 to 340 g) | I | Robust purple beefsteak with rich flavour. A cross of Cherokee Purple and Carbon. Best in-ground. 
*Also available as organic seed.*

Genuwine F1 | 70-75 | Slicer, red 10.5-11.5 oz. (298 to 326 g) | I | Big red slicer tomato is a cross of Costoluto Genovese and Brandywine. Ready to harvest 12 to 19 days earlier than Brandywine! Best in-ground.

---

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>BEEFSTEAK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BlushingStar F1</td>
<td>70-75</td>
<td>Oblate, ribbed, pink 2.25-2.5 in./6 cm long x 3.75-4 in./10 cm wide, 12-16 oz. (340 to 454 g)</td>
<td>I</td>
<td>HR: LB, SLS</td>
<td>Upgrade your garden with heirloom tomato flavour and modern hybrid tomato performance. Early-maturing, pink beefsteak fruit are sweet and savoury, with higher yield potential and fewer blemishes than most heirlooms. Large, pink beefsteak fruit are perfect for eating fresh on a sandwich or preserving in sauce. Offers disease resistance to late blight and septoria leaf spot. Best grown in the ground with support of a trellis or cage.</td>
</tr>
<tr>
<td>DarkStar F1</td>
<td>70-75</td>
<td>Oblate, ribbed, purple 2-2.25 in./5-6 cm long x 3-3.25 in./8 cm wide, 8-10 oz. (227 to 283 g)</td>
<td>I</td>
<td>HR: LB, V</td>
<td>Upgrade your garden with heirloom tomato flavour and modern hybrid tomato performance. Early-maturing, rich, purple beefsteak fruit has higher yield potential and fewer blemishes than most heirlooms. Large, purple beefsteak fruit is perfect for eating fresh on a sandwich or for preserving in sauce. Offers high disease resistance to late blight, too. Best grown in the ground with support of a trellis or cage.</td>
</tr>
<tr>
<td><strong>ROMA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bellatrix F1</td>
<td>65-70</td>
<td>Oval, red 2.75-3 in./7-8 cm long x 2-2.25 in./5-6 cm wide, 4.5-5 oz. (128 to 142 g)</td>
<td>D</td>
<td>HR: F2, F3, LB, TMV, ToMV</td>
<td>Bellatrix has high resistance to late blight, a common disease of tomato plants. It also has resistance to Fusarium, a common root zone disease. Red Roma/paste tomatoes ripen in a short period of time, allowing for a large harvest for cooking sauce or making salsa. Best grown in the ground or in a large container, with or without support of a trellis or cage.</td>
</tr>
<tr>
<td>Little Napoli F1</td>
<td>60-65</td>
<td>Red 2-2.5 oz. (57 to 71 g)</td>
<td>CD</td>
<td>HR: F1, V</td>
<td>One of the only patio Romas, with disease resistance for better garden success. High yields for such a small plant; enough can be harvested at one time for a batch of salsa or sauce. Best in containers.</td>
</tr>
<tr>
<td>Sunrise Sauce F1</td>
<td>55-60</td>
<td>Orange 3-4 oz. (85 to 113 g)</td>
<td>D</td>
<td>HR: F1, V</td>
<td>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.</td>
</tr>
<tr>
<td>Name</td>
<td>Days to maturity from transplant</td>
<td>Fruit characteristics</td>
<td>Growth</td>
<td>Disease resistance</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------</td>
<td>----------------------------------------</td>
<td>--------</td>
<td>--------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>SLICER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Homeslice</strong></td>
<td>60-65</td>
<td>Round, red</td>
<td>D</td>
<td>HR: F1, V</td>
<td>Vigorous, compact variety produces very early and bountiful yields of</td>
</tr>
<tr>
<td><strong>F1</strong></td>
<td></td>
<td>5-6 oz. (142 to 170 g)</td>
<td></td>
<td></td>
<td>exceptional slicers. Perfect for patio containers and small gardens.</td>
</tr>
<tr>
<td><strong>Little Sicily</strong></td>
<td>60-65</td>
<td>Round, small, red</td>
<td>CD</td>
<td></td>
<td>Companion to Little Bing and Little Napoli, the compact, sturdy plants</td>
</tr>
<tr>
<td><strong>F1</strong></td>
<td></td>
<td>3-4 oz. (85 to 113 g)</td>
<td></td>
<td></td>
<td>produce the majority of ripened fruit over a few weeks for a large</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>harvest. Abundant, good-tasting, small, red slicer tomatoes are great</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>eaten fresh or used in recipes. Best in containers, with or without a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>trellis.</td>
</tr>
<tr>
<td><strong>Loki</strong></td>
<td>70-75</td>
<td>Medium, round, red</td>
<td>I</td>
<td>HR: F1, F2, LM, N,</td>
<td>Huge tomato flavour and performance. Early-maturing, round, red slicer</td>
</tr>
<tr>
<td><strong>F1</strong></td>
<td></td>
<td>2.25-2.5 in./6 cm long x 3-3.25 in./8</td>
<td></td>
<td>TMV, ToMV</td>
<td>fruit has high yield potential. Leaf mold resistance is great for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cm wide, 6-8 oz. (170 to 227 g)</td>
<td></td>
<td></td>
<td>growing in high tunnels or areas with high humidity. Best grown in the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ground.</td>
</tr>
<tr>
<td><strong>Stellar</strong></td>
<td>70-75</td>
<td>Round, red</td>
<td>D</td>
<td>HR: F2, LB, V IR:</td>
<td>The perfect slicer for areas with high disease pressure. Produces lots</td>
</tr>
<tr>
<td><strong>F1</strong></td>
<td></td>
<td>5-7 oz. (142 to 198 g)</td>
<td></td>
<td>EB, SL5</td>
<td>of round, red fruit that is perfect for all uses. Best in-ground;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>benefits from trellis for support.</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, F3 - Fusarium Race 3, 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
### WINTER 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><strong>Autumn Frost F1</strong></td>
<td>Specialty Round</td>
<td>Dark tan</td>
<td>100-105</td>
<td>5-7 in./13-18 cm x 5-6 in./13-15 cm wide</td>
<td>Medium Vine</td>
<td>IR: PM</td>
<td>Uniquely ribbed, round fruit ripens to dark tan with a frosted overlay. Fruit is similar in taste to a butternut squash, with superior quality, rich flavour and a shelf life of up to 4 months after maturity, allowing for a supply of high-quality fruit throughout the Winter season. Fruit can be prepared like a winter squash; cut lengthwise or cut the top 2 in./5 cm off, scoop seeds out and roast; perfect for stuffing. Best grown in-ground. <strong>Also available as organic seed.</strong></td>
</tr>
<tr>
<td><strong>Butterbaby</strong></td>
<td>Mini butternut</td>
<td>Tan</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 to 680 g)</td>
<td>Restricted Vine</td>
<td>IR: PM</td>
<td>Produces many sweet, personal-sized 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. <strong>Also available as organic seed.</strong></td>
</tr>
<tr>
<td><strong>Honeynut</strong></td>
<td>Mini butternut</td>
<td>Dark tan</td>
<td>105-110</td>
<td>4.5 in./10.13 cm long x 2.5-4 in./6-10 cm wide, 8-16 oz./227 to 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>
</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
STRAWBERRY
Fragaria x ananassa
Fresca

Height: 3 to 4 in./8 to 10 cm
Spread: 10 to 12 in./25 to 30 cm
Seed supplied as: Raw
Days from transplant to ripe fruit: 85

- Produces medium-size berries from the start of Summer through Autumn.
- Best in baskets, containers and in-ground.

<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>Easy Pick Gold II F1 Cucurbita pepo</td>
<td>Zucchini</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>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>Lemon Sun F1 Cucurbita pepo</td>
<td>Patty Pan</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>
### BASIL

<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> &lt;br&gt; <em>Ocimum basilicum</em></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 Winner.</td>
</tr>
<tr>
<td><strong>Everleaf Emerald Towers</strong> &lt;br&gt; <em>Ocimum basilicum</em></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 salads 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> &lt;br&gt; <em>Ocimum basilicum</em></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, 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>
</tbody>
</table>

---

**Towering over other basils**

The aromatic and vibrant flavour of the Everleaf basils complements any dish! These well-branched basils with short internodes make beautiful, tidy, towering plants that have huge harvest potential and brighten gardens or mixed containers.
<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>Everleaf Thai Towers</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 Thai basil with huge harvest potential. Well-branched variety with short internodes makes a beautiful, columnar plant that stays tidy for many uses, including in-ground, container gardens and hydroponics. Aromatic and vibrant licorice flavour complements any dish, especially Thai cuisine. Blends well when cooked in a curry or chop fresh on Pad Thai to experience full licorice aroma. Masses of medium-green leaves with occasional purple flecks and soft purple stems will brighten any retail display.</td>
</tr>
<tr>
<td>Newton</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 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>Purple Ruffles</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. <em>All-America Selections Winner.</em></td>
</tr>
</tbody>
</table>
### SimplyHerbs™ Series

SimplyHerbs Try Basil and Rosemary 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.

<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 harvest from transplant</th>
<th>USDA hardiness zones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Try Basil</strong></td>
<td>PMPL*</td>
<td>8</td>
<td>24-30 in./61-76 cm</td>
<td>12-16 in./30-41 cm</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td><em>Ocimum basilicum</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oregano</strong></td>
<td>MPL</td>
<td>9-14</td>
<td>12-30 in./30-76 cm</td>
<td>12-24 in./30-61 cm</td>
<td>28</td>
<td>5a-9b</td>
</tr>
<tr>
<td><em>Origanum vulgare</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rosemary</strong></td>
<td>PMPL</td>
<td>7</td>
<td>12-24 in./30-61 cm</td>
<td>12-24 in./30-61 cm</td>
<td>42</td>
<td>7a-10b</td>
</tr>
<tr>
<td><em>Rosmarinus officinalis</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thyme</strong></td>
<td>MPL</td>
<td>8-14</td>
<td>12-18 in./30-46 cm</td>
<td>12-18 in./30-46 cm</td>
<td>42</td>
<td>5a-9b</td>
</tr>
<tr>
<td><em>Thymus vulgaris</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MPL - Supplied as multi-species multi-pellets, with 3 or more seedlings per pellet. PMPL - Precision™ Multi-Pellets assure high germination uniformity.

*Each pellet includes Genovese, serrated and dark red selections.
**SIMPLY SALAD® Series**

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

**Plug crop time:** 2 to 3 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>
</tr>
</thead>
<tbody>
<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>
</tr>
<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>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>
</tr>
<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>
</tr>
<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>
</tr>
<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>
</tr>
<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>
</tr>
<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>
</tr>
</tbody>
</table>

MPL - Supplied as multi-species multi-pellets, with 3 or more seedlings per pellet.  
PMPL - Precision™ Multi-Pellets assure high germination uniformity.
<table>
<thead>
<tr>
<th>Class/Variety</th>
<th>Page</th>
<th>Page</th>
<th>Fresh Market</th>
<th>Home Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Field</td>
<td>Hydroponic</td>
</tr>
<tr>
<td>AMERICAN SLICER CUCUMBER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martini F1</td>
<td>208</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Patio Snacker F1*</td>
<td>208</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EUROPEAN PICKLER CUCUMBER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GherKing F1</td>
<td>208</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EGGPLANT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian Delite F1</td>
<td>209</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Fairy Tale F1</td>
<td>209</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Gretel F1</td>
<td>209</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Hansel F1</td>
<td>209</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Patio Baby F1</td>
<td>209</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>HOT PEPPER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aji Rico F1</td>
<td>210</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cajun Belle</td>
<td>210</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Golden Cayenne*</td>
<td>210</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>La Bomba II F1</td>
<td>210</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mad Hatter F1</td>
<td>210</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Pot-a-peño F1</td>
<td>211</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Primero Red F1</td>
<td>211</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sweet Heat F1*</td>
<td>211</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SWEET PEPPER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candy Cane Chocolate Cherry F1</td>
<td>213</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Candy Cane Red F1</td>
<td>213</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Peppi Cornissimo F1</td>
<td>212</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Peppi Red F1</td>
<td>212</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Peppi Yellow F1</td>
<td>212</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PeppiGrande Red F1</td>
<td>212</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New Prism F1</td>
<td>213</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Snackabelle Red F1</td>
<td>212</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Trailblazer F1</td>
<td>213</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SIMPLY SALAD®</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alfresco Mixture</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Arugula</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>City Garden Mixture</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Global Gourmet Mixture</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Kale Storm Mixture</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Summer Picnic Mixture</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Wonder Wok Mixture</td>
<td>225</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

*Compact variety – best-suited to home garden use.
<table>
<thead>
<tr>
<th>Class/Variety</th>
<th>Page</th>
<th>Fresh Market</th>
<th>Home Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Field</td>
<td>Hydroponic</td>
</tr>
<tr>
<td>MINI BUTTERNUT SQUASH</td>
<td>220</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Butterbaby</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honeynut</td>
<td>220</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PATTY PAN SQUASH</td>
<td>221</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lemon Sun F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIALTY ROUND SQUASH</td>
<td>220</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Autumn Frost F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZUCCHINI SQUASH</td>
<td>221</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Easy Pick Gold II F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRAWBERRY</td>
<td>221</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Fresca*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEEFSTEAK TOMATO</td>
<td>218</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BlushingStar F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DarkStar F1</td>
<td>218</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CHERRY TOMATO</td>
<td>214</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Artemis F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate Sprinkles F1</td>
<td>214</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Helix F1</td>
<td>214</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Little Bing F1*</td>
<td>214</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Micro Tom*</td>
<td>214</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Midnight Snack F1</td>
<td>215</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Orange Zinger F1</td>
<td>215</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sugar Rush F1</td>
<td>215</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tidy Treats F1*</td>
<td>215</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Topsy Tom F1*</td>
<td>216</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tumbler F1*</td>
<td>216</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>CURRANT TOMATO</td>
<td>217</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Candyland Red</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEIRLOOM MARRIAGE™ TOMATO</td>
<td>217</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Big Brandy F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cherokee Carbon F1</td>
<td>217</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Genuwine F1</td>
<td>217</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ROMA TOMATO</td>
<td>218</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Bellatrix F1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little Napoli F1*</td>
<td>218</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sunrise Sauce F1</td>
<td>218</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Find product & growing info at panamseed.com
<table>
<thead>
<tr>
<th>Class/Variety</th>
<th>Page</th>
<th>Fresh Market</th>
<th>Home Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Field</td>
<td>Hydroponic</td>
</tr>
<tr>
<td>SLICER TOMATO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeslice F1</td>
<td>219</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Little Sicily F1*</td>
<td>219</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Loki F1</td>
<td>219</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Stellar F1</td>
<td>219</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SPECIALTY SMALL-FRUITED TOMATO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marzito F1</td>
<td>216</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New Sun Dipper F1</td>
<td>216</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SIMPLYHERBS™</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oregano</td>
<td>224</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Rosemary</td>
<td>224</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Thyme</td>
<td>224</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Try Basil</td>
<td>224</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BASIL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolce Fresca</td>
<td>222</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Everleaf Emerald Towers</td>
<td>222</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Everleaf Genovese</td>
<td>222</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Everleaf Thai Towers</td>
<td>223</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Newton</td>
<td>223</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Purple Ruffles</td>
<td>223</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

*Compact variety – best-suited to home garden use.
In addition to the helpful tools on our website, you can find us on social media with all the latest tips and tricks, real-life experiences and how-to videos. Follow us to be a part of the growing community!
INSPIRED SOLUTIONS

Looking for new solutions? It's time to get inspired with tools that make scheduling premium crops, perennials and combos quick and easy. With our dedication to breeding, research, trialing and creating time-saving solutions, we'd like to introduce you to several new and popular tools that you can add to your toolbox.
At PanAmerican Seed, we know how important growers are to professional landscapers. For this segment of our industry, we provide support through product development, breeding and trialing designed for landscape performance.

We focus on several important professional landscaper requirements, testing products under conditions including: sun and 50% shade, overhead irrigation, speed to fill, maintenance requirements and season-long colour impact.

Products designated as a Pro Landscape Performer are listed on the PAS website.

Our collection of landscape varieties has been selected based on these key elements:

- Fast Fill
- Low Maintenance
- Maintains Colour All Season Long

**Interspecific Impatiens Solarscape Magenta Bliss Trial • Elburn, IL:** 27 plants, full sun, 14 in./36 cm spacing
Discover Helpful Plant Lists and Resources

- Find a Plant Supplier
- Plant Calculator
- Regional Plant Selector
- Build A Landscape Sell Sheet Tool

Find the right landscape solution today!

Find product & growing info at panamseed.com / PRO LANDSCAPE 233
What if your empty bench could be filled and ready for additional sales in 10 WEEKS OR LESS?

With the Sow Fast. Grow Fast.™ program, you can keep your benches full after Spring for additional shoulder season sales. Expertly designed and meticulously trialed, it’s the top growing program proven to fill benches with quality seed product fast. Sow Fast. Grow Fast. offers 113 varieties from seed that will be ready for sales in 10 weeks or less. It’s time to say goodbye to your empty bench and hello to more shoulder season sales!

THE NUMBERS ADD UP!

113 VARIETIES

33 COMBOS

20 SERIES

10 WEEKS CROP TIME OR LESS

1 SOLUTION TO KEEP YOUR SALES GROWING!

PROVEN GERMINATION • CALCULATED FINISH TIMES • QUICK TURN-AROUND
## MIX AND MATCH FOR PERFECT POTTED PLANTS AND CREATIVE COMBINATIONS

<table>
<thead>
<tr>
<th>CLASS/SERIES/VARIETY</th>
<th>ADT</th>
<th>DLI</th>
<th>TOTAL CROP TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Quart (4.25 in./11 cm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Weeks from Sowing</td>
</tr>
<tr>
<td>Alternanthera, Purple Prince</td>
<td>8 1 8 1</td>
<td>8 1 8 1</td>
<td></td>
</tr>
<tr>
<td>Celosia Foliage, Sol™</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
<tr>
<td>Celosia, Ice Cream</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
<tr>
<td>Coleus, Kong Jr™</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
<tr>
<td>Coleus, Kong*</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
<tr>
<td>Coleus, Premium Sun</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
<tr>
<td>Coleus, Wizard*</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
<tr>
<td>Dahlia, Figaro™</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Hibiscus, Mahogany Splendor</td>
<td>8 1 8 1</td>
<td>8 1 8 1</td>
<td></td>
</tr>
<tr>
<td>Impatiens, Beacon*</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Marigold, African, Taishan™</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Marigold, French, Bonanza™</td>
<td>7 1 7 1</td>
<td>7 1 7 1</td>
<td></td>
</tr>
<tr>
<td>Marigold, French, Durango*</td>
<td>7 1 7 1</td>
<td>7 1 7 1</td>
<td></td>
</tr>
<tr>
<td>Ornamental Millet, Copper Prince</td>
<td>8 1 8 1</td>
<td>8 1 8 1</td>
<td></td>
</tr>
<tr>
<td>Petunia, Ez Rider*</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Petunia, Lo Rider™</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Petunia, Pretty Flora™</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Petunia, Pretty Grand™</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Portulaca, Happy Hour™</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Salvia, Lancelot</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Salvia, Lighthouse</td>
<td>8 1 8 1</td>
<td>8 1 8 1</td>
<td></td>
</tr>
<tr>
<td>Salvia, Red Hot Sally II</td>
<td>8 1 8 1</td>
<td>8 1 8 1</td>
<td></td>
</tr>
<tr>
<td>Salvia, Vista™</td>
<td>8 1 8 1</td>
<td>8 1 8 1</td>
<td></td>
</tr>
<tr>
<td>Sunflower, Miss Sunshine</td>
<td>7 1 7 1</td>
<td>7 1 7 1</td>
<td></td>
</tr>
<tr>
<td>Vinca, Pacifica XP</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Zinnia, Double Zahara*</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Zinnia, Zahara*</td>
<td>10 1 10 1</td>
<td>10 1 10 1</td>
<td></td>
</tr>
<tr>
<td>Zinnia, Zesty™</td>
<td>9 1 9 1</td>
<td>9 1 9 1</td>
<td></td>
</tr>
</tbody>
</table>

*Depending on location, these are early-Spring conditions.
COMBOS YOU CAN COUNT ON

To save you time and stress in guessing, we’ve calculated the time it will take for you to grow your perfect combo! Through dedicated research and development, we have predetermined the ideal genus, season, light exposure and planting type to provide you with a combo that you can count on.

IT’S AS EASY AS:

1. Select your GENUS
2. Select your SERIES
3. Select your COLOUR

Your Calculated Combos™ results will provide you with plants per pot, crop time plug and finished time, so you can stop calculating and get growing!

Solarscape Shimmer White Impatiens
Solarscape Magenta Bliss Impatiens
Serena Purple Angelonia

Hula Pink Begonia
Hula Red Begonia
Sparkle White Gaura

Solarscape Orange Burst Impatiens
Mediterranean XP Burgundy Halo Vinca
Pony Tails Stipa

Create Your Own Combo!
ACCURATE PERENNIALS SCHEDULING MATTERS

It's easier than ever before to schedule your seed perennials with Kieft Seed.™ Use our interactive scheduling tool and resource guide to plan, sow and grow dozens of perennial crops to hit specific bloom weeks for maximum sales opportunities.

Choose from hundreds of flowering options that have broken vernalisation barriers.

EASY TO ACCESS. EASY TO USE, EASY TO STAY IN THE KNOW.

Hit your bloom week with this easy resource
SCHEDULING: KNOW BEFORE YOU GROW

The Smart Scheduling Tool from PanAmerican Seed is an easy-to-use estimator for growers to help plan and schedule their crops. It was developed to provide accurately predicted finish times for key crops, targeting our Wave® petunias and Kitchen Minis™ programs.

The tool takes into consideration environmental conditions such as temperature, media and light, as well as other factors that influence plant growth and development. You can use the tool to calculate precise ship dates with exact product specs - the keystone of floriculture crop production.
TOOLS YOU CAN USE

Product Information

Detailed Culture & Growing Guides

Seed Storage Best Practices

Retail Benchcards

Consumer Merchandising Materials

Grower Calendar & Scheduling Tools

& Much More

Take a look at our newly refreshed website for helpful resources
THE AMERICAS

Sean Valk
GLOBAL SALES DIRECTOR
Office: +1 (0) 630 588-3368
Mobile: +1 (0) 331 232-9344
svalk@panamseed.com

Sonali Padhye
SENIOR GLOBAL TECHNICAL MANAGER
Office: +1 (0) 517 214-1458
Mobile: +1 (0) 630 234-4576
spadhye@panamseed.com
mgross@panamseed.com

Mark Gross
SALES
Office: +1 (0) 630 588-3250
Mobile: +1 (0) 630 234-4576
jhartman@ballhort.com

Jenny Hartman
GLOBAL DIRECTOR DEMAND MANAGEMENT
Office: +1 (0) 630 588-3176
jhartman@ballhort.com

Josh Kirschenbaum
VEGETABLE BUSINESS MANAGER
Office: +1 (0) 630 588-3429
Mobile: +1 (0) 541 914-5548
jkirschenbaum@panamseed.com

Steven Engel
REGIONAL ACCOUNT MANAGER
Mobile: +1 (0) 979 472-1787
sengel@panamseed.com

Saima Husain
REGIONAL ACCOUNT MANAGER
Mobile: +1 (0) 786 256-2227
shusain@panamseed.com
dsedmak@panamseed.com

Dylan Sedmak
REGIONAL ACCOUNT MANAGER
Mobile: +1 (0) 331 871-1825
cvalle@ballhort.com

Camila Valle
REGIONAL ACCOUNT MANAGER
Mobile: +1 (0) 858 342-9955
cvalle@ballhort.com

Felicia Vandervelde
REGIONAL ACCOUNT MANAGER
Mobile: +1 (0) 905 359-9457
fvandervelde@panamseed.com

Heather LaRocca
GLOBAL CUSTOMER SERVICE MANAGER
Office: +1 (0) 630 588-3487
hlarocca@panamseed.com

Adriana Antonio
CUSTOMER SERVICE LEAD
Office: +1 (0) 630 588-3134
aantonio@panamseed.com

Sandra Guerrero
CUSTOMER SERVICE
Office: +1 (0) 630 352-4563
sguerrero@panamseed.com

Kim Holeton
CUSTOMER SERVICE
Office: +1 (0) 630 352-4586
kholeton@panamseed.com

Ana Ibarra
CUSTOMER SERVICE
Office: +1 (0) 630 588-3114
aibarra@ballhort.com

Jessica Lee
CUSTOMER SERVICE
Office: +1 (0) 630 352-4585
jessicalee@panamseed.com

Lisa Speranske
CUSTOMER SERVICE
Office: +1 (0) 630 352-4567
lsperanske@panamseed.com

Doug Blocker
ACCOUNTS RECEIVABLE
Office: +1 (0) 630 588-3247
dblocker@ballhort.com

PanAmerican Seed
EUROPE

Jeroen Star
SALES MANAGER
Office: +31 (0) 228-541-844
Mobile: +31 (0) 653-475-912
jstar@panamseed.com

Pavel Koltsov
AREA MANAGER
Office: +31 (0) 228-541-844
Mobile: +7 (0) 965-700-5454
pkoltsov@panamseed.com

Hussam Naser Eddin
AREA MANAGER
Office: +44 (0) 7 888-888-844
heen@panamseed.com

Sylvia Rocheteau
AREA MANAGER
Office: +31 (0) 228-541-844
Mobile: +33 (0) 688-507-712
srocheteau@panamseed.com

Sjaak Ros
AREA MANAGER
Office: +31 (0) 228-545-090
Mobile: +31 (0) 651-255-092
sros@panamseed.com

Anne Dekker
ACCOUNT MANAGER
Office: +31 (0) 228-541-844
Mobile: +31 (0) 620-731-497
adekker@panamseed.com

Henric van der Krogt
CUT FLOWER BUSINESS MANAGER
Office: +31 (0) 228-541-844
Mobile: +31 (0) 600-000-000
hvanderkrogt@ballhort.com

Willa Jing You
KEY ACCOUNT MANAGER
Office: +31 (0) 228-541-844
Mobile: +31 (0) 622-657-979
jyou@panamseed.com

Esther Roet
CUSTOMER SERVICE LEAD
Office: +31 (0) 228-545-095
eroet@panamseed.com

Paulina Laan
CUSTOMER SERVICE
Office: +31 (0) 228-541-844
plaan@panamseed.com

Astrid de Wit
CUSTOMER SERVICE
Office: +31 (0) 228-545-092
adewit@panamseed.com

Irene Zeijpveld
CUSTOMER SERVICE
Office: +31 (0) 228-545-094
izeijpveld@panamseed.com

SALES & CUSTOMER SERVICE / PANAMERICAN SEED

ASIA OCEANIA

Mark Gross
SALES
Office: +1 (0) 630-588-3350
Mobile: +1 (0) 630-238-4576
mgross@panamseed.com

Tracy Chang
SALES
Phone (China): +86 (0) 1599-559-9280
tchang@ballhort.com

Manish Chakurkar
SALES
Phone (India): +91 (0) 9325-706543
Mobile: +91 (0) 7861-873433
mchakurkar@ballhort.com

Jane Vathesatogkit
SALES
Phone (Thailand): +66 (0) 53-111-728
jane@sodsailanna.com

Kevin Sun
KEY ACCOUNTS SUPPORT
Office (USA): +1 (0) 630-588-2187
Fax: +1 (0) 630-293-2557
ksun@panamseed.com

THE PANAMERICAN SEED TEAM IS HERE TO HELP!

Find product & growing info at panamseed.com / SALES & CUSTOMER SERVICE 241
USE THE POWER OF RECOGNITION

The “stamp of approval” on these reliable, proven varieties assures landscapers and home gardeners that they are selecting and planting superior performers. Growers and retailers benefit from the added promotional efforts that these winners receive, both at their debut and for years to come.

ALL-AMERICA SELECTIONS
Angelonia Serenita Pink
Coleus, Premium Sun Coral Candy
Coreopsis Early Sunrise
Dianthus Ideal Select Violet
Interspecific Dianthus Jolt Pink
Echinacea Cheyenne Spirit
Echinacea PowWow Wild Berry
Eggplant Fairy Tale
Eggplant Gretel
Eggplant Hansel
Gaillardia Mesa Yellow
Gaura Sparkle White
Basil Dolce Fresca
Basil Purple Ruffles
Ornamental Millet Purple Majesty
Osteospermum Akila Daisy White
Pepper Aji Rico
Pepper Cajun Belle
Pepper Mad Hatter
Ornamental Pepper Black Pearl
Ornamental Pepper Chilly Chilli
Spreading Petunia Tidal Wave Red Velour
Spreading Petunia Tidal Wave Silver
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 Pacifica XP Burgundy Halo
Zinnia Double Zahara Cherry
Zinnia Double Zahara Fire
Zinnia Zahara Starlight Rose

ALL-AMERICA SELECTIONS REGIONAL
Echinacea Artisan Collection Yellow Ombre
Eggplant Patio Baby
Pepper Pot-a-peño

FLEUROSELECT GOLD MEDAL
Armeria Ballerina Red
Celosia Foliage, Sol Gekko Green
Coreopsis Early Sunrise
Cosmos Sonata White
Echinacea Cheyenne Spirit
Gaillardia Mesa Yellow
Gaura Sparkle White
Lavandula Bandera Purple
Lavandula Elegance Purple
Leucanthemum Madonna
Nemesia Sundrops Mixture
Osteospermum Akila Daisy White
Spreading Petunia Tidal Wave Red Velour
Spreading Petunia Wave Lavender
Rudbeckia Goldblitz
Viola Sorbet XP Delft Blue
Coleus, Premium Sun Coral Candy All-America Selections Winner

PANAMERICAN SEED / AWARD WINNERS

AWARD WINNERS / Request your Product Information Guide for full culture details
**FLEUROSELECT NOVELTY**
- Alyssum Clear Crystal White
- Celosia Foliage, Sol Gekko Green
- Celosia Foliage, Sol Lizard Leaf
- Coreopsis Double the Sun
- Digitalis Dalmatian Purple
- Heuchera Melting Fire
- Iberis Whiteout
- Lavandula Bandera Deep Purple
- Lavandula Bandera Deep Rose
- Lavandula Bandera Purple
- Leucanthemum Madonna
- Lobelia Regatta Rose
- Lobelia Riviera White
- French Marigold Bonanza Deep Orange
- Ornamental Pepper Black Pearl
- Perovskia Blue Steel
- Perovskia Bluesette
- Spreading Petunia Tidal Wave Red Velour
- Salvia New Dimension Rose
- Silene Starry Dreams
- Vinca Pacifica XP Burgundy Halo
- Zinnia Double Zahara Bright Orange
- Zinnia Double Zahara Cherry
- Zinnia Double Zahara Fire
- Zinnia Double Zahara White
- Zinnia Zahara Starlight Rose
- Zinnia Zahara Sunburst

**MEDAL OF EXCELLENCE BEST PROGRAM**
- Edible Potted Pepper Fresh Bites Orange
- Edible Potted Pepper Fresh Bites Red
- Edible Potted Pepper Fresh Bites Yellow
- Edible Potted Pepper Adobo
- Edible Potted Pepper Cosmo
- Edible Potted Pepper Hot Burrito
- Edible Potted Pepper Hot Fajta
- Edible Potted Pepper Hot Joker
- Edible Potted Pepper Hot Lemon Zest
- Edible Potted Pepper Piñata
- Edible Potted Pepper Tamale
- Edible Potted Pepper Taquito
- Tomato Micro Tom
- Edible Potted Tomato Cocoa
- Edible Potted Tomato Red Velvet
- Edible Potted Tomato Siam

**MEDAL OF EXCELLENCE INDUSTRY’S CHOICE**
- Echinacea Artisan Collection Red Ombre
- Echinacea Artisan Collection Soft Orange
- Impatiens Beacon Bright Red
- Impatiens Beacon Coral
- Impatiens Beacon Lipstick
- Impatiens Beacon Orange
- Impatiens Beacon Rose
- Impatiens Beacon Salmon
- Impatiens Beacon Violet Shades
- Impatiens Beacon White
- Impatiens Beacon Cape Pine Mixture
- Impatiens Beacon Formula Mixture Improved
- Impatiens Beacon Lindau Mixture
- Impatiens Beacon Pearl Island Mixture
- Impatiens Beacon Portland Mixture
- Impatiens Beacon Sanibel Mixture

**MEDAL OF EXCELLENCE READERS’ CHOICE**
- Impatiens Beacon Bright Red
- Impatiens Beacon Coral
- Impatiens Beacon Lipstick
- Impatiens Beacon Orange
- Impatiens Beacon Rose
- Impatiens Beacon Salmon
- Impatiens Beacon Violet Shades
- Impatiens Beacon White
- Impatiens Beacon Cape Pine Mixture
- Impatiens Beacon Formula Mixture Improved
- Impatiens Beacon Lindau Mixture
- Impatiens Beacon Pearl Island Mixture
- Impatiens Beacon Portland Mixture
- Impatiens Beacon Sanibel Mixture

**NATIONAL GARDEN BUREAU GREEN THUMB AWARD**
- Pepper Candy Cane Chocolate Cherry
- Tomato Sun Dipper

**ROYAL HORTICULTURAL SOCIETY AWARD OF GARDEN MERIT**
- Alyssum Easter Bonnet Violet
- Aquilegia Swan Burgundy And White
- Aquilegia Swan Yellow
- Dianthus Amazon Neon Purple
- Dianthus Amazon Rose Magic
- Dianthus Dynasty Orchid
- Dianthus Ideal Select Rose
- Dianthus Ideal Select WhiteFire
- Dianthus Sweet Coral
- Dianthus Sweet Scarlet

---

**AWARDS**

**AWARDS**

---

Find product & growing info at panamseed.com / AWARD WINNERS 243
U.S. UTILITY PATENTS

US 10,212,908
Vinca Titan™ Cranberry
Vinca Titan™ Dark Red
Vinca Titan™ Really Red

US 10,285,362
Impatiens Beacon® Bright Red
Impatiens Beacon® Coral
Impatiens Beacon® Lipstick
Impatiens Beacon® Orange
Impatiens Beacon® Rose
Impatiens Beacon® Salmon
Impatiens Beacon® Violet Shades
Impatiens Beacon® White
Impatiens Beacon® Cape Pine Mixture
Impatiens Beacon® Formula Mixture Improved
Impatiens Beacon® Lindau Mixture
Impatiens Beacon® Pearl Island Mixture
Impatiens Beacon® Portland Mixture
Impatiens Beacon® Sanibel Mixture

US 10,631,515
Petunia Glitterati™ Purple Star
Petunia Glitterati™ Red Star

US 11,559,016
Vinca Valiant™ Magenta

US 10,750,692
French Marigold Fireball
French Marigold Strawberry Blonde

US 11,166,424
Impatiens Beacon® Bright Red
Impatiens Beacon® Coral
Impatiens Beacon® Orange
Impatiens Beacon® Rose
Impatiens Beacon® Salmon
Impatiens Beacon® Violet Shades
Impatiens Beacon® White
Impatiens Beacon® Cape Pine Mixture
Impatiens Beacon® Formula Mixture Improved
Impatiens Beacon® Lindau Mixture
Impatiens Beacon® Pearl Island Mixture
Impatiens Beacon® Portland Mixture
Impatiens Beacon® Sanibel Mixture

US 7,642,436
Petunia Sophistica™ Antique Shades
Petunia Sophistica™ Blackberry
Petunia Sophistica™ Lime Bicolor
Petunia Sophistica™ Lime Green
Spreading Petunia Easy Wave™ Berry Velour
Spreading Petunia Easy Wave™ Burgundy Velour
Spreading Petunia Easy Wave™ Red Velour
Spreading Petunia Easy Wave™ Carmine Velour

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

US 7,982,110
Echinacea Artisan™ Collection Red Ombre
Echinacea Artisan™ Collection Soft Orange
Echinacea Artisan™ Collection Yellow Ombre
Echinacea Cheyenne Spirit
Echinacea PowWow™ Wild Berry

US 9,301,465
Ornamental Pepper Hot Pops Purple

US 9,307,712
Ornamental Pepper Hot Pops Yellow

US 9,320,212
French Marigold Hot Pak™ Gold
French Marigold Hot Pak™ Mixture

US 9,326,464
French Marigold Hot Pak™ Harmony
French Marigold Hot Pak™ Mixture

US 9,326,465
French Marigold Hot Pak™ Yellow
French Marigold Hot Pak™ Mixture

US 9,326,466
French Marigold Hot Pak™ Sory
French Marigold Hot Pak™ Mixture

US 9,326,467
French Marigold Hot Pak™ Orange
French Marigold Hot Pak™ Mixture

US 9,326,468
French Marigold Hot Pak™ Flame
French Marigold Hot Pak™ Mixture

US 9,451,748
Vinca Valiant™ Burgundy
Vinca Valiant™ Mixture

US 9,451,749
Vinca Valiant™ White

US 9,451,750
Vinca Valiant™ Orchid

US 9,451,751
Vinca Valiant™ Punch
Vinca Valiant™ Mixture

US 9,451,752
Vinca Valiant™ Lilac
Vinca Valiant™ Mixture

U.S. PLANT VARIETY PROTECTIONS

Celosia Kosmo Pink -  200400022
Coleus, Premium Shade Kong® Red -  200500015
Coleus, Premium Shade Kong® Rose -  200500017
Coleus, Premium Shade Kong® Salmon Pink -  200900035
Coreopsis Sun-Kiss -  201700014
Cuphea Pink Shimmer -  201800290
Erysimum Citrona™ Orange -  200600167
Erysimum Citrona™ Yellow -  200600168
Exacum Sapphire -  201800031
French Marigold Bonanza™ Boloero -  201800074
French Marigold Bonanza™ Deep Orange -  201800517
French Marigold Flamenco -  202000034
Matthiola Katz Ruby -  201200438
Myosotis Mon Amie Blue -  200800070
Ornamental Oregano Kirigami -  201800057
Ornamental Pepper Black Pearl -  200500020
Salvia interspecific Big Blue -  201700218
Vinca Mediterranean XP Dark Red -  200900043
Vinca Mediterranean XP Hot Rose -  200900084
Vinca Mediterranean XP Peach -  200900080
Vinca Mediterranean XP Red -  200900081
Vinca Mediterranean Strawberry -  200900083
Vinca Mediterranean XP White -  200900053
Vinca Pacifica XP Burgundy Halo -  200700272
Vinca Pacifica XP Dark Red -  200600189
Vinca Pacifica XP Magenta Halo -  200500216
Vinca Pacifica XP Rose Halo -  200500218
Vinca Pacifica XP Really Red -  200600190
Vinca Tattoo™ Black Cherry -  201800427
Vinca Tattoo™ Blueberry -  202100018
Vinca Tattoo™ Orange -  202200007
Vinca Tattoo™ Papaya -  201800424
Vinca Tattoo™ Raspberry -  201800426
Vinca Tattoo™ Tangerine -  201800425
Vinca Tattoo™ American Pie Mixture -  200600190
Vinca Tattoo™ American Pie Mixture -  202100168
Zinnia Double Zahara™ Cherry -  201600027
Zinnia Double Zahara™ Fire -  201600032
Zinnia Double Zahara™ Raspberry Ripple -  201800173
Zinnia Double Zahara™ Salmon -  201900097
Zinnia Double Zahara™ Yellow -  202000360
Zinnia Zahara™ Cherry -  201600029
Zinnia Zahara™ Fire -  201000090
Zinnia Zahara™ Raspberry -  201500215
Zinnia Zahara™ Red -  201600030
Zinnia Zahara™ White -  201400297
Zinnia Zahara™ Yellow -  201500214

EUROPEAN COMMUNITY PLANT BREEDER'S RIGHTS

Celosia Neo™ Gold -  46508
Celosia Neo™ Orange -  44055
Celosia Neo™ Pink -  43694
Celosia Neo™ Red -  46509
Celosia Neo™ Rose -  43693
Coreopsis Sun-Kiss -  46544
Echinacea PowWow™ Wild Berry -  35233
Exacum Sapphire -  49015
Heuchera Melting Fire -  20557
Lavandula Avignon Early Blue -  57924
Lavandula Blue Spear -  57923
Lavandula Lavance Deep Purple -  48822
Salvia interspecific Big Blue -  49559

EUROPEAN COMMUNITY UTILITY PATENTS APPLIED FOR

French Marigold Fireball
French Marigold Strawberry Blonde
Impatiens Beacon® Bright Red
Impatiens Beacon® Coral
Impatiens Beacon® Lipstick
Impatiens Beacon® Orange
Impatiens Beacon® Rose
Impatiens Beacon® Salmon
Impatiens Beacon® Violet Shades
Impatiens Beacon® White
Impatiens Beacon® Cape Pine Mixture
Impatiens Beacon® Formula Mixture Improved
Impatiens Beacon® Lindau Mixture
Impatiens Beacon® Portland Mixture
Impatiens Beacon® Sanibel Mixture

U.S. UTILITY PATENTS APPLIED FOR

Vinca Valiant™ Apricot
ACCEPTANCE OF TERMS
These terms and conditions shall govern orders for Goods placed with Seller. Purchaser acknowledges that these terms and conditions are a material part of the proposal, if any, constitute the entire agreement between Seller and Purchaser and supersede any prior agreements and representations. Any prior or contemporaneous proposals, representations or communications whether oral or written or created in the custom, usage or course of dealing are also superseded by these terms and conditions. No modification of these terms and conditions shall be effective unless in writing signed by Seller. Placement of the order shall constitute acceptance of all of these terms and conditions. All orders are subject to acceptance by Seller at our corporate offices or at any additional or alternative 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.

PACKAGING
Prices and availability are subject to change without notice. Although Seller tries to assure accuracy, it shall not be held responsible for typographical errors in the price list. Purchaser’s price is determined by referring to the product price list and desde. The following are terms and conditions which Purchaser may qualify. Please contact your sales representative for more information.

TERMS AND CONDITIONS OF SALE

SEED COUNT
All seed counts given are approximate quantities due to variation based on a lot by lot comparison. Seed counts may also vary between colors as well.

NOTICE REGARDING SEED-BORNE DISEASES
Seller makes no representation regarding the freedom from seed-borne diseases of the seed sold and discloses any liability relating to such diseases, otherwise previously known to exist or not identified until such seed is grown.

RESERVATION OF OWNERSHIP
In the event of bankruptcy, products delivered by the Seller remain the property of Seller until the Purchaser has satisfied all the purchase price. This reservation of ownership is also extended to claims that Seller may obtain towards Purchaser on account of the Purchaser’s failure to meet their obligations to Sale.

LIMITATION OF WARRANTY
Seller warrants, to the extent required by law, that Goods are free from seed-borne diseases of any kind, when shipped. Seller reserves the right to further credit and correct any errors or omissions made in these Terms and Conditions of Sale.

IME INDENCY
By accepting the Goods, Purchaser agrees to indemnify, defend and hold harmless Seller, its affiliates, successors and assigns from and against any claim or liabilities, claims, demands, damages, losses and expense (including attorney’s fees) sustained by or any assignee of such Goods or users of the products of such Goods (i) arising from any act or omission of Customer or its employees or agents, or (ii) who were not notified by Purchaser in writing of limitation of warranty in writing of Warranty, Condition, Arbitration, Governing Law, Jurisdiction and Venue, and Notice Regarding Seeds and Seed-Borne Diseases of any nature to and including the freedom from seed-borne diseases which may be substantially equivalent to that contained in these Terms and Conditions of Sale.

TRADEMARKS
© or ™ indicate registered trademark and ™ denotes a trademark of Ball Horticultural Company, unless otherwise indicated.

SALE LIMITATIONS

EXPORTS
PanAmerican Seed products are not available for sale in and/or may not be sold into Australia, New Zealand, Korea, Brazil and South Africa. The Company reserves the right to limit the sale of its products to these countries. In the event of bankruptcy, products delivered by the Seller remain the property of Seller until the Purchaser has satisfied all the purchase price. This reservation of ownership is also extended to claims that Seller may obtain towards Purchaser on account of the Purchaser’s failure to meet their obligations to Sale.

Mandatory Arbitration
Any claim which Purchaser may have against Seller arising out of or relating to the sale of the Goods hereunder must be brought, if at all, within twelve (12) months of the delivery of the Goods which are the subject of the claim and shall be submitted by binding arbitration in accordance with the commercial arbitration rules of the American Arbitration Association. Any 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, shall govern any matters arising out of or relating to Seller’s sale of merchandise. ANY DISPUTE NOT SUBJECT TO ARBITRATION OR ANY ACTION TO ENFORCE AN ARBITRATION AGREEMENT WHICH IS REQUIRED TO LIMIT THE SALE OF MERCHANDISE HEREBEAL 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.

Imagery
High and low-resolution digital images are available upon request. Please contact photoLibrary@ballhort.com or +1 (0) 630 562-7887. Copyright images from Ball Horticultural Company may be reproduced only in connection with the marketing of Ball Horticultural Company products. The correct marketing name as listed on images provided must be used in connection with images. Images may not be licensed or resold. Any unauthorized use is a violation of law.

Visit panamseed.com for current Terms and Conditions of Sale and current Variety Protection Information.

Find product & growing info at panamseed.com / TERMS & CONDITIONS OF SALE 245
A
Alternanthera ............... 24
Alyssum ..................... 24
Anemanthele ................ 51
Anemone .................... 176
Angelonia ................... 22
Antirrhinum .......... See Snapdragon
Aquilegia ................... 132
Armeria ..................... 136
Arugula ..................... 225
Asclepias ................. 176
Asparagus Fern ............ 25
Aurinia ...................... 136
Award Winners ............. 242

B
Bacopa ........................ 26
Basil ................................ 222, 224
Begonia ...................... 26
Bellis .......................... 136

C
Calculated Combos ........ 236
Campanula ................... 136, 161, 177
Capsicum .............. See Pepper
Carex .......................... 50, 53
Carthamus .................... 177
Catharanthus .......... See Vinca
Celosia ....................... 36, 160, 177
Coleus .......................... 38
ColorGrass ................... 50
Cool Wave Pansies ........ 18
Coreopsis .................... 137
Cosmos .......................... 42
Crossandra .................... 42
Cucumber .................... 202, 208
Cuphea .......................... 43
Customer Service & Sales Team ......... 240

D
Dahlia .......................... 48
Delphinium ................. 138, 181
Dianthus ....................... 44, 140, 182
Dichondra .................... 48
Digitalis ....................... 139
Dusty Miller .................. 49

E
Echinacea .................... 141
Edible Potted Pepper .......... 204
Eggplant ..................... 209
Erysimum .................... 49
Euphorbia ..................... 49
Eustoma ........ See Lisianthus
Exacum .......................... 166

F
Festuca .......................... 51
Fiber Optic Grass ... See Isolepis
First-Year-Flowering Tool ...... 237

G
Gaillardia .................... 144
Gaura .......................... 145
Gazania .......................... 54
Gerbera ...................... 167
Global Customer Service Standards .... 248
Gomphrena ................... 55, 184
Grasses ..................... 50
Grass Panicum .............. 184

H
Helianthus .... See Sunflower
Heuchera .................... 145
Hibiscus ..................... 146
Hypoestes ..................... 172

I
Iberis .......................... 146
Impatiens ..................... 56
Isolepis ..................... 50

J
Juncus ......................... 51, 52, 53

L
Laurentia ........ See Isotoma
Lavandula .................... 147
Lettuce & Greens .......... 225
Leucanthemum ............ 150
Limonium ..................... 185
Lisianthus ..................... 62, 172, 185
Lobelia ....................... 62, 152
Lobularia ........ See Alyssum
Luzula ......................... 50
Lycopersicum ........ See Tomato
Many PanAmerican Seed and Kieft Seed varieties are protected by U.S. Patents and/or Plant Breeders’ Rights in Europe and elsewhere. Find the complete protection information list on page 244.

EU 10351, etc.: European Community Plant Variety Rights
EU PBRAF: European Community Plant Variety Rights Applied For
EU PAF: European Utility Patents Applied For
PCT: International Patent Applied For
US 7,915,504, etc.: U.S. Utility Patents
PPAF, US PAF: U.S. Patents Applied For
US PVP 9500027, etc.: U.S. Plant Variety Protections
US PVPAF: U.S. Plant Variety Protections Applied For

M
Marigold ............................ 64
Matricaria .......................... 188
Matthiola .......................... 188, Also See Stock
Myosotis ............................. 153

N
Nemesia .................................. 70

O
Online & Digital Resources .... 229
Oregano .................................... 224
Ornamental Millet .................. 71
Ornamental Mint .................. 70
Ornamental Oregano ............... 70
Ornamental Pepper ................ 83, 162
Osteospermum ...................... 72

P
Pansy ........................................ 18, 73
Papaver .................................... 153
Penstemon .............................. 154
Pentas ........................................ 80
Pepper .................................... 204, 210
Perovskia .............................. 154
Petchoa ..................................... 84
Petunia ...................................... 8, 86
Phlox .......................................... 99
Plectranthus ............................ 100
Poppy ....................................... See Papaver
Portulaca ............................... 103
Primula ..................................... 100
Production Guide ................. 226
Pro Landscape ......................... 232
Protection Information .......... 244
Purslane ................................. 102

R
Rosemary .............................. 224
Rudbeckia ............................... 155
Ruellia ....................................... 102

S
Sales & Customer Service ....... 240
Salvia ..................................... 104, 156
Scabiosa .................................... 157
Silene ......................................... 157
SimplyHerbs ......................... 224
SimplySalad ............................ 225
Smart Scheduling ................ 238
Snapdragon ......................... 106, 195
Sow Fast. Grow Fast .............. 234
Squash ........................................ 220
Statice ........................ See Limonium
Stipa .......................................... 52
Stock .................. 108, Also see Matthiola
Strawberry ............................. 221
Sunflower ............................... 173
Sutera ........................ See Bacopa
Sweet William ...................... See Dianthus

T
Tagetes ........................ See Marigold
Tanacetum .......................... See Matricaria
Terms & Conditions .............. 245
Thunbergia ......................... 108
Thyme ....................................... 224
Tools ........................................... 239
Tomato ................................. 203, 214
Torenia .................................... 109
Trachelium .............................. 199

V
Verbascum ............................ 157
Verbena ..................................... 110, 157
Vinca ....................................... 111
Viola ............................................. 118

W
Wave Petunias ....................... 8

Z
Zinnia ...................................... 124
GLOBAL CUSTOMER SERVICE STANDARDS
Empowering our customers through exceptional customer service

CUSTOMER FIRST PHILOSOPHY
- An exceptional customer experience is our top priority.
- We understand that our customers’ needs are not one-size-fits-all and we are committed to providing individualised 1:1 service to each and every customer.

INDIVIDUALISED 1:1 SERVICE
- Each of our customers is assigned a dedicated PanAmerican Seed Global Customer Service Representative to support their business needs.
- PanAmerican Seed Global Customer Service Representatives are driven to develop real working relationships with both customers and external sales representatives acting in their interest.
- In a world full of customer service bots and automated answering services, the PanAmerican Seed Global Customer Service team maintains the core belief that world-class service only comes from the human touch. Our customer works every step of the way with an individual who is trained to facilitate successful outcomes on their behalf. Expect real people dedicated to real solutions.
- We are proudly selective. Only the most dynamic and adaptive individuals are hired for our customer service team. Once on our team, they are extensively trained to be experts in our products, processes, regulations, policies and customer needs.

TRANSPARENT COMMUNICATION
- Upon receiving a customer service inquiry, the dedicated PanAmerican Seed Global Customer Service Representative will provide a response within 24 hours.
- If a customer’s dedicated representative is out of the office at any point during the time of an inquiry, instructions about who to contact in their absence will be included in an auto-response.
- Communications from dedicated PanAmerican Seed Global Customer Service Representatives will always be transparent. By sharing what we know, when we know it, we’ll help our customers set realistic expectations about when to anticipate final outcomes on inquiries.

ORDER FULFILLMENT
- All order fulfillments from start to finish are overseen by our Global Customer Service Representatives.
- Customers will be advised on the status of the items in their orders as soon as the information is available.
ACCURATE INVENTORY STATUS

- Using all the tools available to us, we inform customers of the availability of an item to ship on their requested ship date. Should an item be unavailable, an estimated availability date will be provided.

- If a customer does not wish to wait until the next date of product availability, our Global Customer Service Representatives can suggest an ideal alternative product to meet our customer’s individual needs.

EXPORT

- Working in partnership with each customer, we **assess and comply** with the requirement for shipping based on their specified country.

- Each dedicated Global Customer Service Representative **manages order shipments** and keeps a detailed account of their customers’ order requirements, such as shipment documentation, additional declarations and testing requirements. Any requirements that involve an action performed by the customer will always be clearly communicated.

- The Global Customer Service team is informed on the inspection dates of products, as well as where to locate the original and final inspection reports.

RETURN POLICY

- Refer to our terms and conditions for full details.
YOUR NUMBER 1 CHOICE FOR SEED

SUPPLY
Wide 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 sales, customer service and technical teams.

© 2023 Ball Horticultural Company     23495300
™ denotes a trademark of and ® denotes a registered trademark of Ball Horticultural Company in the U.S. and/or the European Community. See www.panamseed.com/protection for current protection information.

622 Town Road • West Chicago, IL 60185-2698 USA
+1 (0) 1 800 231-7065
P.O. Box 63 • 1606 ZH Venhuizen, The Netherlands
+31 (0) 228-541-844

Contact your preferred supplier to order PanAmerican Seed products.
panamseed.com makes it easier for you to grow

Please recycle when no longer needed or pass along to a colleague.