

# PanAmerican Seed.





#### Moving forward with Wave®

Wave, the world's best-selling petunia, moves the market forward once again with the introduction of an all-new earlier, <u>easy-to-produce series. Turn the page to</u> find out more...



# **NEW** IN 2022

PanAmerican Seed<sup>®</sup> is your global partner for a wide range of high-quality seed products to help you have a successful growing season. Our regional customer service representatives are available when you need us, and we have technical support to help you always grow your best.

Our 2022 introductions include a number of exciting varieties that provide you with growing solutions, like E3 Easy Wave<sup>™</sup> Petunias, an Early, Efficient and Evolutionary series that starts the Wave sales season even earlier! Beacon® Rose makes a bold new addition to the impatiens series with high resistance to Impatiens downy **mildew.** We are also pleased to announce our new cut flower venture, BloomStudios<sup>SM</sup>. With a great new cut flower marigold for Dia de los Muertos celebrations, as well as two new Sweet<sup>™</sup> Dianthus varieties, we have a lot to offer. Find out more at BloomStudios.com. Plus. the Kitchen Minis® Collection expands with two edible potted tomato plants that will entice consumers to **buy**, eat and repeat their purchase of these indoor/outdoor tabletop varieties.

Visit **panamseed.com** for more product information and growing culture on these and all our tried-and-true varieties to enhance your program and expand your business during these unique times. You can count on us to be there when and where you need us!

ose Wave. Choose Amazin Inspiring gardeners since 1995 Wave is the most asked for plant brand Nave is the most associate plant branch in the world! Consumers rave about the Twono: Consumers lave about the preading colour. Wave Retunias and sies deliver growing, selli

PanAmerican Seed.

Request your Product Information Guide for full culture details

PanAmerican Seed

Nave Petunias

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**NEW IN 2022** 

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#### **Meet Our Cover Stars!**

#### FRONT:

E3 Easy Wave™ Blue Spreading Petunia White Lion Leucanthemum Beacon<sup>®</sup> Rose Impatiens ColorBloom<sup>™</sup> Deep Orange with Dark Eye Gerbera 'Everleaf Thai Towers' Basil Xochi Orange F1 Marigold

#### BACK:

E3 Easy Wave™ Sky Blue Spreading Petunia







### WAVE / E3 EASY WAVE

#### Wake up early season sales!

This brand-new Wave® series flowers at 10 hours daylength, and it will be ready at retail to kick off Easy Wave sales even earlier! With a manageable, uniform plant structure and vigour, this new series offers simple 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 look better longer at retail for even better sell-through and still provide the extraordinary performance that consumers expect!



It's Early, it's Efficient, it's the Evolution of Easy Wave... it's E3!

SPREADING PETUNIA Petunia x hybrida

#### E3 Easy Wave<sup>™</sup> Series F1



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

• A new Wave brand series is now available to fulfill sales earlier in the season.

• All colours flower 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).

• All E3 Easy Wave varieties have a similar, uniform plant structure and vigour, which means 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 sheer colour value!

 Mounding and spreading habit offers a three-dimensional landscape effect, creating impressive baskets and planters.

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





### PanAmerican Seed.

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

#### WAVE / E3 EASY WAVE









Pink

Pink Cosmo



Red





New 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. New 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. New 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.

New 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.

New 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.

New 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.

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





Red, Blue, White



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### WAVE / E3 EASY WAVE





Sky Blue



White





Pink Cosmo

## PanAmerican Seed.

WAVE



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.

#### 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.

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

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

**New White** Pure white variety requires 10.5 hours daylength for best flowering. Replaces Coconut. Plant vigour is slightly more compact than Red and fits the series well. Cold durable.

New Spark Mixture Improved Includes NEW White in place of Coconut, so the mix is more uniform in habit and vigour, making it easier to produce. Also includes Denim and Pink Shades.

New Volt Mixture Improved Includes NEW White in place of Coconut, so the mix is more uniform in habit and vigour, making it easier to produce. Also includes Denim and Red.

### PanAmerican Seed.

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Spark Mixture Improved



Volt Mixture Improved

# ANNUALS



#### **ANNUALS / BEACON**

**High resistance to** Impatiens downy mildew!

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





Formula Mixture





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

**IMPATIENS** Impatiens walleriana

Beacon<sup>®</sup> Series F1



Height: 15 to 20 in./38 to 51 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 currently known and widely prevalent populations of Plasmopara obducens, which cause Impatiens downy mildew. • 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.

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

**New Rose** Rose colour expands the series.

New Formula Mixture Bright Red, Coral, Orange, NEW Rose, Salmon, Violet Shades and White.

Also available in: **Bright Red** Coral Orange Salmon **Violet Shades** White **Red White Mixture** 

**ANNUALS** 



Pink Bronze Leaf Improved

#### 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 to early-bird gardeners.

**BEGONIA** • • Begonia interspecific

Megawatt<sup>™</sup> Series F1



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

Seed supplied as: Pelleted

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

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

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

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

#### New Pink Bronze Leaf Improved

Features darker bronze foliage and no green leaf off-types, with a more intense pink bloom colour and no shading.

Also available in: Pink Green Leaf Red Bronze Leaf Red Green Leaf Rose Bronze Leaf Rose Green Leaf

#### ANNUALS / JOLT

#### Shocking Summer Colour!

The most heat-tolerant interspecific dianthus, Jolt's electrifying colours make them sure standouts in landscapes and garden beds, as well as premium containers. These highly durable plants withstand hot conditions with few disease issues and continue to flower without setting seed for a really powerful garden performance!

## INTERSPECIFIC DIANTHUS O Dianthus barbatus interspecific

Jolt<sup>™</sup> Series F1



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.

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

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

Perfect for Summer premium grower choice quarts and gallons to command a higher price point.
Strong dark green foliage.

• Performs as a semi-hardy annual in Zone 7 (0°F/-18°C minimum temperature) and milder.

**New Purple** Drive-by bright! Stunning Purple has a bloom size and landscape performance to match the rest of the series.

Also available in: Cherry

Pink (All-America Selections National Winner) Pink Magic



Purple

#### ANNUALS / WIZARD

#### PACK COLEUS

Solenostemon scutellarioides

#### Wizard<sup>®</sup> 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. New Select Mixture Improved Less

sensitive to downy mildew, with a more attractive colour combination and a better colour balance than the competition. Includes Coral Sunrise, Jade, Mosaic, Scarlet, Sunset and Velvet Red.

Also available in: Coral Sunrise Golden Jade Mosaic Rose Scarlet Sunset Velvet Red Mixture



Madness Deep Rose Petunia



Mirage Deep Rose Petunia



Wizard Select Mixture Improved Coleus

PETUNIA O Petunia x hybrida Madness® Series F1



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

Seed supplied as: Pelleted

Plug crop time: 4 to 5 weeks Transplant to finish: 5 to 6 weeks Available in North America only.

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

• Exceptional seed quality, plug performance and uniformity across all colours from sow to finish.

• Well-branched, floriferous plants are covered with an abundance of 3-in./8-cm blooms.

**New Deep Rose** Features large flowers and a brilliant deep rose colour.

#### 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 Not available for sale in North America.

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

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

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

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

**New Deep Rose** Adds an important colour that was missing from the series. Same timing as Mirage Rose; flowers are on the large side for the series.

#### **ANNUALS / SORBET**



Sorbet Tiger Eye

VIOLA 🔍 🌗

#### Sorbet<sup>®</sup> 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.

**New Tiger Eye** Unusual striped pattern is excellent for Fall sales. Habit and timing match Sorbet XP.



Sorbet XP Rose Blotch



Sorbet Tiger Eye



Sorbet XP Rose Blotch

NEW

#### Send the bestlooking violas to retail

Grow, ship, sell and plant the best-looking violas for Spring and Autumn - Sorbet XP genetics deliver a uniform plant habit and the tightest bloom window.

#### Sorbet<sup>®</sup> 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.

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

PanAmerican Seed.

# PERENNIALS KieftSeed



#### Spring Shasta grows in short days!

White Lion brings an early sales opportunity in this key perennial class - it can be grown in natural short days! With high quality and reliable supply, this seed Leucanthemum is a must-have for early Spring.

#### 

Leucanthemum x superbum

#### New 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!

• 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!



White Lion Leucanthemum



Starship Rose Lobelia

LOBELIA – Lobelia x speciosa

Starship<sup>™</sup> 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.
NEW Rose matches Scarlet for timing and uniformity.

• 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.

**New Rose** A bright rose colour.

Also available in: Blue Burgundy Deep Rose Scarlet Scarlet Bronze Leaf

# POTTED PLANTS



#### POTTED PLANTS / COLORBLOOM

GERBERA • Gerbera jamesonii

ColorBloom<sup>™</sup> Series F1

Height: 4 to 6 in./10 to 15 cm Spread: 6 to 8 in./15 to 20 cm Flower size: 3 to 4 in./8 to 10 cm

Seed supplied as: Coated

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

• The ColorBloom series is specially designed for the quart/ 11-cm retail market.

ColorBloom is the most uniform series on the market, with the best performance for consumers.
The series is around 10 days faster to flower than competitors.
More uniform with a shorter flower window.

• It has a higher amount of usable plants due to better seed quality.

• Offers a compact plant habit that requires less to no PGRs.

• Series holds its colour better and won't fade in high light.

New Bicolor Red White A unique bicolour 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 NEW Deep Orange with Dark Eye.

New 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 NEW Bicolor Red White and Bicolor Orange Yellow. Adding this top-selling colour means we can now offer growers a complete gerbera program!

Also available in: Bicolor Orange Yellow Cherry with Light Eye Deep Rose with Light Eye Red with Dark Eye Red with Light Eye White with Dark Eye Yellow with Dark Eye Mixture

# 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. And, first-time plant buyers will love the exciting, non-fading colours and easy care of this indoor/outdoor plant.



ColorBloom Bicolor Red White



**Revolution Orange with Light Eye Improved** 



ColorBloom Deep Orange with Dark Eye

#### **Revolution™ Series F**1

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.

#### New Orange with Light Eye Improved Features a stronger,

deep orange colour that doesn't fade under high light conditions; better flower quality, with more and wider petals; more compact flower stems with improved, uniform length, and a higher quantity of usable plants.

Cover your whole gerbera program with PanAmerican Seed!



# **CUT FLOWERS**



#### Get to know BloomStudios Cut Flowers...

For years, PanAmerican Seed has provided the highest quality seed to professional cut flower growers around the world. BloomStudios Cut Flowers is a new venture that grew from this to bring innovative breeding and technical resources to the professional cut flower market through the PanAmerican Seed distribution network.

BloomStudios - Igniting Imagination with Every Stem<sup>SM</sup>



#### CUT FLOWERS / XOCHI

#### Strong stems stand up to shipping

Strong stems and rich colour make NEW Cut Flower Marigold Xochi Orange the best for bouquets and grower bunches. An excellent option for Summer and Fall cut flower programs, Xochi offers the uniformity, good shipability and durability to meet the increasing consumer demand for Dia de los Muertos and Halloween celebrations.

#### MARIGOLD Tagetes erecta

#### Xochi Orange F1

Planting Density: 80-100 plants/sq. meter (8-10 plants/sq. foot) Cultivation Type: High Tunnel, Field Usage: Focal, Secondary Stem Length: 24 to 36 in./ 61 to 91 cm

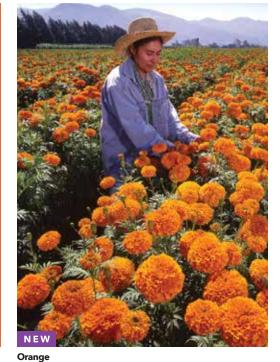
#### Form Supplied As: Coated

A great option for Summer and Fall cut flower programs, Xochi delivers stronger stems and richer colours than competing varieties. Xochi means "flower" or "princess of flowers" and is a shortened version of Xochitl, an ancient Mayan word used in Spanish today, most commonly in Mexico. A popular cut flower for Dia de los Muertos and Halloween; good for use in bouquets and grower bunches.

Harvest Recommendation: For shipping, harvest flowers when blooms are at 7cm (2.75") in diameter. For local market, harvest stems when first flower is fully open.

**Post-Harvest Recommendation:** Take care when handling flowers to avoid snapping flower heads off of stems. Marigolds can be stored either wet or dry at 2-5°C (35-38°F). If storing wet, use a commercial floral holding solution.

Vase Life Recommendation: Marigolds have an excellent vase life of 10+ days.





Orange



Orange

#### **CUT FLOWERS / SWEET**



Mona Lisa Mixture Improved Anemo

ANEMONE Anemone coronaria

#### Mona Lisa<sup>®</sup> Series F1

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

#### Form Supplied As: Raw

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 (8-12°C/46-54°F) promote optimum stem length.

#### Harvest Recommendation:

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

Post-Harvest Recommendation: Anemones are sensitive to ethylene; recommend treating with an anti-ethylene product. Hydrate and store in cooler at 1-3°C (34-38°F) in commercial floral solution at recommended rates.

New Mixture Improved Reformulated for a better balance of all colours in the series, it now includes the recently improved Deep Blue and Orchid Shades, as well as Pink, Red Bicolor, Scarlet Eye, White and Wine White Bicolor.

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Sweet Neon Purple Dianthus



Sweet Rose Magic Dianthus

#### Best in class makes the best bouquets

Sweet offers the best commercial *D. barbatus* series available. With no vernalisation needed for first-yearflowering, you can program for year-round production. Add to that the very uniform height and flowering, excellent retail holdability and 13 separate bright colours, and you've got one sweet series to grow and send to market!

**DIANTHUS** Dianthus barbatus

Sweet<sup>™</sup> Series F1

Planting Density: 64 plants/sq. meter (6 plants/sq. foot) Cultivation Type: Greenhouse, High Tunnel Usage: Filler, Secondary Stem Length: 18 to 36 in./ 46 to 91 cm

#### Form Supplied As: Pelleted

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.

#### 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 Neon Purple** Bright purple colour really pops in bouquets. Similar to the colour of the very popular Amazon Neon Purple.

New Rose Magic New colour option for the series! 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.

#### **CUT FLOWERS / POTOMAC**

## Snaps second to none

We are the world's leading supplier of cut flower 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.



**Dark Pink** 

N E W Dark Pink

PRODUCTION GUIDE				
Class/Variety	Greenhouse	High Tunnel	Field	
ANEMONE				
Mona Lisa Series F1	х	Х		
DIANTHUS				
Sweet Series F1	х	Х		
MARIGOLD				
New Xochi Orange F1		Х	х	
SNAPDRAGON				
Potomac Series F1	Х	Х		



FLORAL SELECTION GUIDE FOR BOUQUETS				
Class/Variety	Focal	Filler	Line	Secondary
ANEMONE				
Mona Lisa Series F1	Х			
DIANTHUS				
Sweet Series F1		Х		х
MARIGOLD				
New Xochi Orange F1	Х			Х
SNAPDRAGON				
Potomac Series F1			Х	

**SNAPDRAGON** Antirrhinum majus

#### Potomac<sup>™</sup> Series F1

Planting Density: 80-106 plants/ sq. meter (8-10 plants/sq. foot) Cultivation Type: Greenhouse, High Tunnel Usage: Line Stem Length: 39 to 60 in./ 99 to 152 cm

#### Form Supplied As: Raw

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 flowers 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

**New Dark Pink** (*Group 4*) Brings a key colour in the dark pink/rose category in line with the newer breeding in the Potomac series; a great match to Pink. Replaces Rose with a more uniform flowering variety and improved bud taper.



**CUT FLOWERS** 

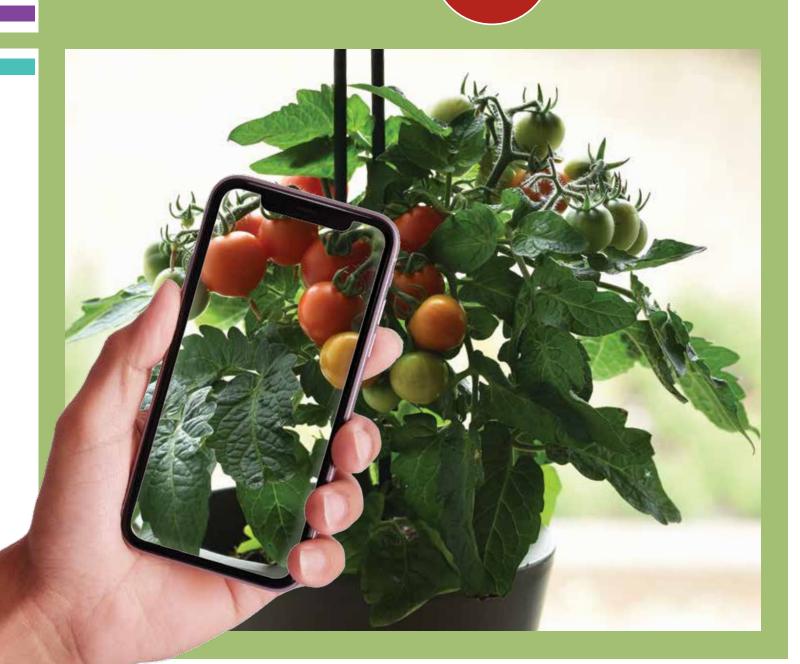
# EDIBLE POTTED VEGETABLES

Kitehen

MINIS®

NO GARDEN?

NO PROBLEM.



#### **KITCHEN MINIS / COCOA & RED VELVET**

## EDIBLE POTTED TOMATO • •

#### New Cocoa F1

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

Seed supplied as: Raw

Tomato Class: Small-Fruited Type: Cherry

Habit: Compact Determinate Tomato Colour: Dark red

Fruit Characteristics: Round, small Fruit Size: 0.5-1 in./1-3 cm long x 0.5-1 in./1-3 cm wide

**Days to maturity from transplant:** 70-84

Plug crop time (weeks): 2-3 Potting to sale (weeks): 10-12 Pot size: Quart-6 in./12-15 cm

Plant benefits from being grown dry. Support fruit weight by inserting sticks close to the central stem at the time of flowering.
Cocoa provides uniquely burgundy-coloured fruit that is deliciously sweet for your recipes! Smaller, more compact habit is perfect for quart and 4.5-in./11-cm programs.

#### New Red Velvet F1

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

Seed supplied as: Raw

Tomato Class: Small-Fruited Type: Cherry

Habit: Compact Determinate Tomato Colour: Red

Fruit Characteristics: Round, small

**Fruit Size:** 0.5-1 in./1-3 cm long x 0.5-1 in./1-3 cm wide

**Days to maturity from transplant:** 70-84

Plug crop time (weeks): 2-3 Potting to sale (weeks): 10-12 Pot size: Quart-6 in./12-15 cm

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

• Red Velvet provides beautiful red-coloured fruit that is deliciously sweet for your recipes! Smaller, more compact habit is perfect for quart and 4.5-in./11-cm programs.



Cocoa

#### without a garden! They can also be grown outside as tabletop patio varieties. Easy-to-grow Kitchen Minis encourage

Minis encourage consumers to harvest and enjoy their own homegrown vegetables, then when the plant is finished fruiting, buy a fresh plant to harvest from every few weeks!

**Buy. Eat. Repeat!** 

The NEW Kitchen Minis

plants consumers can

windowsill or counter

grow inside on a sunny

collection includes

potted vegetable

#### The Kitchen Minis Collection includes:

#### Peppers

Adobo Cosmo Fresh Bites Orange Fresh Bites Red Fresh Bites Yellow Hot Burrito Hot Fajita Hot Joker Hot Lemon Piñata Tamale Taguito

#### Tomatoes

NEW Cocoa NEW Red Velvet Micro Tom Siam

# VEGETABLES & HERBS



#### HANDPICKED VEGETABLES & HERBS / EVERLEAF THAI TOWERS

## Towering over other basils

The aromatic and vibrant licorice flavour of NEW 'Everleaf Thai Towers' complements any dish, especially Thai cuisine. This well-branched Thai basil variety with short internodes makes a beautiful, tidy, towering plant that has huge harvest potential and brightens gardens and mixed containers.

BASIL O Ocimum basilicum

#### New 'Everleaf Thai Towers'

Height: 24 to 36 in./61 to 91 cm Spread: 8 to 12 in./20 to 30 cm

Seed supplied as: Raw

Herb Type: Thai

Plant Habit: Columnar, highly branched, late flowering, short internodes, upright, vigorous Colour: Medium Green

**Suited For:** Extended harvest multiple cuts, hydroponic, pot, roots-on

**Days to maturity from direct seed:** 45-60

**Days to maturity from transplant:** 30-45

**Production Method:** Field, Hydroponic, In Ground, Container

• 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 inground, 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.





'Everleaf Thai Towers'

'Everleaf Thai Towers'



Everleaf Basil Collection L-R: Everleaf Emerald Towers, NEW 'Everleaf Thai Towers' and Everleaf Genovese

#### HANDPICKED VEGETABLES & HERBS / CANDY CANE CHOCOLATE CHERRY

## Stand out with unique foliage

Candy Cane Chocolate Cherry's variegated foliage stands out among all other vegetables at a young plant size. As the plant matures, green fruit with a unique white stripe changes to chocolate and cherry red. Be sure to add this stunning variety to your vegetable program.

**PEPPER** O Capsicum annuum

#### Candy Cane Chocolate Cherry F1

**Height:** 18 to 24 in./46 to 61 cm **Spread:** 12 to 18 in./30 to 46 cm

#### Seed supplied as: Raw

Type: Sweet

Class: Mini bell Habit: Medium

Fruit Colour: Green/white stripe to chocolate/red stripe

Fruit Size: 3.5-3.75 in./9-10 cm long x 2.5-2.75 in./6-7 cm wide, 3.5-4.5 oz. (99 to 128 g)

Days to maturity from transplant: (green) 55-60; (ripe) 70-75

**Production Method:** Field, In Ground, Container

• 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.





Pot-a-peño



Candy Cane Chocolate Cherry

#### Jalapeños in a basket!

Early-fruiting Pot-a-peño has a unique cascading habit that's perfect for a hanging basket or premium container. It's a great addition to any vegetable program!

#### New Pot-a-peño F1

Height: 12 to 15 in./30 to 38 cm Spread: 18 to 20 in./46 to 51 cm

Seed supplied as: Raw

Type: Hot Heat Level: 2 - mildly hot Class: Jalapeño

Habit: Bush, cascading, medium Fruit Colour: Green to red

**Fruit Size:** 3-4 in./8-10 cm long x 0.75-1.25 in./2-3 cm wide

Days to maturity from transplant: (green) 45-50; (ripe) 60-65 Production Method: Field, In Ground, Container

• Pot-a-peño's unique cascading habit is ideal for a hanging basket or container - a perfect addition to any patio or small-space garden.

• 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 flavour.

#### HANDPICKED VEGETABLES & HERBS / PEPPI



#### Peppi Red

#### New Peppi Series F1

**Height:** 36 to 48 in./91 to 122 cm **Spread:** 24 to 36 in./61 to 91 cm

Seed supplied as: Raw

Type: Sweet Class: Snack

Habit: Large, tall, vigorous Growth: Indeterminate

Fruit Size: 3.5-4.5 in./9-11 cm long x 1.25-1.75 in./3-4 cm wide

Days to maturity from transplant: (green) 55-60; (ripe) 75-80 Production Method: Field, Protected Culture. In Ground

• 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 (nonseedless) 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.

**New Red** Fruit ripens from green to red.

**New Yellow** Fruit ripens from green to yellow.



Peppi Yellow



Peppi Cornissimo

## Seedless sweet peppers

The Peppi pepper collection will grow seedless fruit under the right conditions! Grow plants in isolation from other, non-seedless peppers to produce seedless fruit that makes chopping quick and easy for recipes.

#### New Peppi Cornissimo F1

**Height:** 36 to 48 in./91 to 122 cm **Spread:** 24 to 36 in./61 to 91 cm

#### Seed supplied as: Raw

Type: Sweet Class: Corno Habit: Large, tall, vigorous Growth: Indeterminate

Fruit Colour: Green to red

Fruit Size: 6-7 in./15-18 cm long x 2.25-2.5 in./6 cm wide, 4-4.5 oz. (113 to 128 g)

Days to maturity from transplant: (green) 80-85; (ripe) 95-100 Production Method: Field, In Ground

• 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 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.

#### HANDPICKED VEGETABLES & HERBS / DARKSTAR

#### A true garden star!

DarkStar is resistant to late blight, a common disease of tomato plants, and it has been tested for all common seedborne diseases, ensuring high-quality seed for propagation. You can rely on DarkStar to light up your vegetable program!

TOMATO O Solanum lycopersicum

#### New DarkStar F1

Height: 60 to 84 in./152 to 213 cm Spread: 36 to 48 in./91 to 122 cm

Seed supplied as: Raw

Tomato Class: Large-Fruited Type: Beefsteak Habit: Indeterminate Tomato Colour: Purple Fruit Characteristics: Oblate, ribbed Fruit Size: 2-2.25 in./5-6 cm long x 3-3.25 in./8 cm wide, 8-10 oz. (227 to 283 g) Disease Resistance: HR: LB, V Days to maturity from transplant: 70-75 Production Method: Field, In Ground

• Upgrade your garden with heirloom tomato flavour <u>and</u> modern hybrid tomato performance.

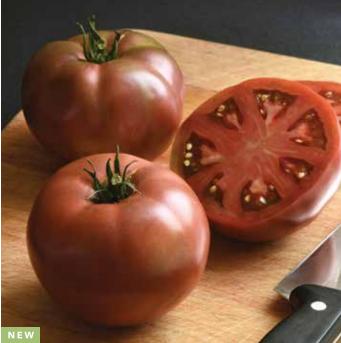
• Early-maturing, rich, purple beefsteak fruit has higher yield potential and fewer blemishes than most heirlooms.

Large, purple beefsteak fruit is perfect for eating fresh on a sandwich or try preserving in sauce.
Offers high disease resistance to late blight, too.

• Best grown in the ground with support of a trellis or cage.



DarkStar







#### New Bellatrix F1

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

#### Seed supplied as: Raw

Tomato Class: Roma/Paste Type: Roma Habit: Determinate Tomato Colour: Red Fruit Characteristics: Oval Fruit Size: 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) Disease Resistance: HR: F2, F3, LB, TMV, ToMV Days to maturity from transplant: 65-70 Production Method: Field,

In Ground, Container

• Bellatrix has high resistance to late blight, a common disease of tomato plants in northern climates.

• 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.

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#### HANDPICKED VEGETABLES & HERBS / MARZITO

#### New Loki F1

Height: 60 to 84 in./152 to 213 cm Spread: 36 to 48 in./91 to 122 cm

Seed supplied as: Raw

Tomato Class: Large-Fruited Type: Slicer Habit: Indeterminate Tomato Colour: Red Fruit Characteristics: Medium, round Fruit Size: 2.25-2.5 in./6 cm long x 3-3.25 in./8 cm wide, 6-8 oz. (170 to 227 g) Disease Resistance: HR: F1, F2, LM, N, TMV, ToMV Days to maturity from transplant: 70-75 Production Method: Field, Protected Culture, In Ground • Huge tomato flavour and performance. Early-maturing, round, red slicer

fruit has higher yield potential and fewer blemishes than most heirlooms.

• Leaf mold resistance is great for growing in high tunnels or areas with high humidity.

• Best grown in the ground.



Loki

NEW



Class/Variety

New Marzito F1

Height: 60 to 84 in./152 to 213 cm Spread: 36 to 48 in./91 to 122 cm

#### Seed supplied as: Raw

Tomato Class: Small-Fruited Type: Specialty Small-Fruited Habit: Indeterminate Tomato Colour: Red Fruit Characteristics: Elongated, mini marzano Fruit Size: 2-2.25 in./5-6 cm long x 0.5-0.75 in./1-2 cm wide Disease Resistance: HR: F1, LM, N, TMV, ToMV Days to maturity from transplant: 50-55 Production Method: Field,

Protected Culture, In Ground

• 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 the ground with support of a trellis or cage.



Home Garden

Container

In Ground

Х Х Х Х New Candy Cane Chocolate Cherry F1 Х Х Х **VEGETABLES & HERBS** Х Х Х Х Х Х Х Х Х Х Х Х Х Х Х Х Х Х Х

### PanAmerican Seed.

BASIL

PEPPER

New 'Everleaf Thai Towers'

New Peppi Series F1 New Peppi Cornissimo F1

New Pot-a-peño F1

New DarkStar F1

New Marzito F1

New Loki F1

TOMATO New Bellatrix F1

# SALES & CUSTOMER SERVICE HERE TO HELP!

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#### **ONLINE & DIGITAL RESOURCES**

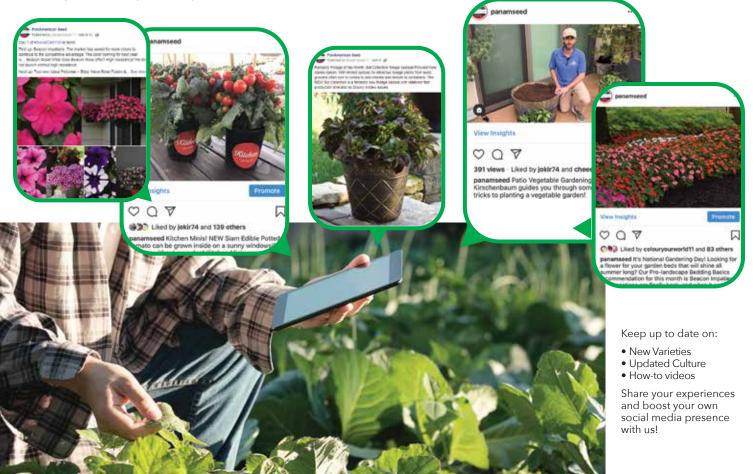
# PanAmerican Seed. KEEPING YOU IN TOUCH (?) (10) (10) (10)



#### panamseed.com

With online tools on our website, the product information guide, culture documents and social media posts, we can provide up-to-the-minute product and growing information, as well as performance data, merchandising tips, trial data and consumer feedback. We've got the resources to keep you informed about our products anytime, anywhere.





#### PanAmerican Seed.

#### ACCEPTANCE OF TERMS

These terms and conditions shall govern orders for Goods placed with Seller. Purchaser acknowledges that these terms and conditions and Seller's proposal, if any, constitute the entire agreement between Seller and Purchaser and supersede any prior agreements and representations.

Any prior or contemporaneous promises, agreements, negotiations or representations whether oral or written or created the custom, usage or course of dealing are also superseded by these terms and conditions. No modification of these terms and conditions shall be effective unless in writing signed by Seller. Placement of the order shall constitute Purchaser's acceptance of these terms and conditions. All orders are subject to acceptance by Seller at our corporate office. Any different or additional terms in any documents from Purchaser are objected to and rejected, are deemed to materially alter these terms, and will not become part of any contract between Seller and Purchaser.

#### PRICING

Prices and availability are subject to change without notice. Although Seller tries to assure accuracy, it shall not be held responsible for typographical or other errors in the price list. Purchaser's price is determined by referring to the product price and deducting any discount for which Purchaser may qualify. Please contact your sales representative for more information.

#### TERMS

All payments must be received before Goods are shipped unless otherwise agreed to in writing by Seller. Payment terms can be seen on your Order Confirmation or at the appropriate Terms & Conditions page at panamseed. com for North American, European and International credit-approved customers. A 2% per month finance charge (24% annual rate) will be added to all past due balances at the end of each month. Seller has no obligation to ship any Goods until payment in full is received.

#### **MINIMUM ORDERS**

The minimum quantity listed in the price list for each variety is the minimum order for that variety. Seller reserves the right to fill orders using pre-packaged inventory when available.

#### FREIGHT & HANDLING CHARGES, INSPECTION, DAMAGED GOODS

(a) The freight and handling charge on Purchaser's invoice covers shipment of the Goods to Purchaser's destination Seller will pay to return damaged goods, for replacement Goods or provide Purchaser with a credit for damaged Goods if the steps listed in Section (b) below are followed. PURCHASER WILL NOT REFUSE TO RETURN DAMAGED OR DEFECTIVE GOODS, OR THE RIGHT TO FILE A CLAIM IS LOST AND PURCHASER WILL STILL BE LIABLE FOR THE MATERIAL AND THE FREIGHT. (b) When Purchaser receives shipment, it shall immediately: 1) count all cartons; 2) inspect all cartons for external damage; 3) check for open or resealed cartons; 4) note any damages, shortages, open or resealed cartons on the delivery receipt; the carrier's representative must also sign the receipt; and 5) open all boxes immediately and inspect for damage, including, but not limited to, material shortages, PURCHASER MUST NOTIFY SELLER WITHIN TWO (2) BUSINESS DAYS IF A SHIPMENT IS DAMAGED by calling its Customer Service Representative to report the damage and receive details on what is needed to file a claim. The Goods shall be deemed accepted by the Purchaser on the earlier of (a) notice of acceptance to Seller, or (b) ten (10) days

after delivery. Any claims for shortage, non-delivery, damage or defect which would reasonably be discoverable in the course of such inspection shall be waived unless Purchaser notifies Seller in writing within ten (10) days after delivery of the goods to which the claim relates

#### PACKAGING FEES

All orders will be filled in bulk and/ or predetermined packet sizes unless special packaging instructions are given. If special packaging is requested, a packaging fee will apply and additional time may be required to complete the order. Purchaser shall contact Customer Service if it requires additional details.

#### CUSTOM SEED TREATMENTS

If a custom treatment is requested, a \$25 (U.S. Dollars) fee per batch will apply and additional time may be needed to complete the order.

#### PHYTOSANITARY CERTIFICATES CHARGE

Depending on the Goods ordered by Purchaser, and the location of the Purchaser, Phytosanitary Certificates may be required to comply with government regulations. If the shipment requires Phytosanitary Certificates, an additional cost will be charged.

#### **DELIVERY DATES**

Please indicate the required ship date when the order is being placed. No orders can be accepted without a requested ship date. All shipping and delivery dates provided by the Seller are approximate.

#### **DELAYS, SHORTAGES &** SUBSTITUTIONS

Seller shall not be responsible for delays in delivery or for losses resulting from such delays. Seller reserves the right to make partial shipment. Seller will not be liable for any delay in performing or for partial or complete failure to perform hereunder if such delay or failure is due to fire, explosion, flood, Act of God, force majeure, accident, war, intervention of governmental authorities, strikes, labor disputes, material shortages, transportation delays, any act or omission of Purchaser, its agents or employees or any party retained by, through or under the control of Purchaser, or any other cause similar or dissimilar which is beyond Seller's reasonable control.

#### INSURANCE

Seller does not insure shipments via Air Mail, but insures all other shipments in transit, in commercially reasonable amounts

#### SHIPPING

Any shipment outside of North America will be charged normal carrier rates

#### RETURNS

No Goods may be returned without first obtaining written authorization. Authorized returns will only be considered if they are in original, unopened Seller packages. All returns are subject to a 15% service charge.

No credit or replacement will be given for Goods returned after nine (9) months from the ship date.

Upon receiving authorization, returns can be shipped to: PanAmerican Seed

Attn: Returns 622 Town Road West Chicago, Illinois USA 60185-2698

#### SEED COUNT

All seed counts given are approximate quantities due to variation based on a lot by lot comparison. Seed counts may also vary widely between colors and series.

#### NOTICE REGARDING SEED-BORNE DISEASES

Seller makes no representation regarding the freedom from seed-borne diseases of the seed sold and disclaims any liability relating to such diseases, whether previously known to exist or not identified until such seed is grown.

#### RESERVATION OF OWNERSHIP

In the event of bankruptcy, products delivered by the Seller remain the property of Seller until the Purchaser has paid the purchase price amount. This reservation of ownership is also extended to claims that Seller may obtain towards Purchaser on account of the Purchaser's failure to meet their obligations to Sale.

#### LIMITATION OF WARRANTY

Seller warrants, to the extent required by law, that Goods conform to the description appearing in Seller's catalog and on container labels, within recognized tolerances. THE FOREGOING WARRANTIES ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN WHETHER EXPRESSED OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT.

#### LIMITATION OF REMEDY

PURCHASER'S SOLE AND EXCLUSIVE REMEDY SHALL BE REFUND OF THE PURCHASE PRICE. SELLER'S LIABILITY, WHETHER FOR BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, THEORY OF LIABILITY OR ANY OTHER THEORY OF LIABILITY, IS LIMITED TO THE AMOUNT OF THE PURCHASE PRICE. PURCHASER AGREES THAT IN NO EVENT, REGARDLESS OF THE FORM OF LEGAL ACTION OR THE THEORY OF RECOVERY, WILL SELLER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUES.

#### USE RESTRICTION

Merchandise is not intended for sale to large-scale commercial growers of herbs or vegetables. Use, transfer and/ or acquisition of merchandise constitutes acceptance of a limited right to use the merchandise solely to grow a single crop for food, feed, processing or ornamental purposes. No other use is permitted. Any transfer of merchandise must be accompanied by this use restriction.

#### MANDATORY ARBITRATION

ANY CLAIM WHICH PURCHASER MAY HAVE AGAINST SELLER ARISING OUT OF OR RELATING TO THE SALE OF THE GOODS HEREUNDER MUST BE BROUGHT, IF AT ALL, WITHIN TWELVE (12) MONTHS OF THE DELIVERY OF THE GOODS WHICH ARE THE SUBJECT OF THE CLAIM AND SHALL BE SETTLED BY BINDING ARBITRATION IN ACCORDANCE WITH THE COMMERCIAL ARBITRATION RULES OF THE AMERICAN ARBITRATION ASSOCIATION, SAID ARBITRATION TO BE VENUED IN COOK OR DUPAGE COUNTIES, ILLINOIS.

## GOVERNING LAW, JURISDICTION & VENUE

The laws of the State of Illinois, Commercial Code as adopted therein, shall govern all matters arising out of or relating to Seller's sale of merchandise. ANY DISPUTE NOT SUBJECT TO ARBITRATION AND ANY ACTION TO ENFORCE AN ARBITRATION AWARD ARISING OUT OF OR RELATING TO THE SALE OF MERCHANDISE HEREUNDER SHALL BE MAINTAINED IN THE STATE

OR FEDERAL COURTS LOCATED IN DUPAGE OR COOK COUNTIES ILLINOIS AND PURCHASER SUBMITS TO THE JURISDICTION OF AND VENUE IN SAID COURTS.

#### **INDEMNITY**

By accepting the Goods, Purchaser agrees to indemnify, defend and hold harmless Seller, its affiliates, successors and assigns from and against any claim or liabilities, claims, demands, damages, losses and expense (including attorney's fees) asserted by any or all transferees of such Goods or users of the products of such Goods (i) arising from any act or omission of Customer or its employees or agents, or (ii) who were not notified by Purchaser in writing of Limitation of Warranty, Limitation of Remedy, Mandatory Arbitration, Governing Law, Jurisdiction and Venue, and Notice Regarding Seed-Borne Diseases, in language substantially equivalent to that contained in these Terms and Conditions of Sale.

PANAMERICAN SEED / TERMS & CONDITIONS OF SALE

#### TRADEMARKS

Trademarks are and shall remain the property of Ball Horticultural Company, unless otherwise indicated. Nothing herein shall grant Purchaser a license to use any such trademark.

#### SALE LIMITATIONS

EXPORT CONTROL. PANAMERCIAN SEED PRODUCTS ARE NOT AVAILABLE FOR SALE IN AND MAY NOT BE RESOLD INTO AUSTRALIA, NEW ZEALAND, KOREA, BRAZIL AND SOUTH AFRICA THE COMPANY'S PRODUCTS MAY NOT BE SOLD, DIVERTED, TRANSFERRED OR RE-EXPORTED, DIRECTLY OR INDIRECTLY, TO ANY INDIVIDUAL ENTITY, OR DESTINATION THAT IS SUBJECT TO UNITED STATES OR UNITED NATIONS SANCTIONS PROGRAMS OR EMBARGOES (INCLUDING, BUT NOT LIMITED TO, OFAC SANCTIONS PROGRAMS AND THOSE LISTED ON OFAC'S "SPECIALLY DESIGNATED NATIONALS" LIST) WITHOUT AN APPROPRIATE EXPORT LICENSE.

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