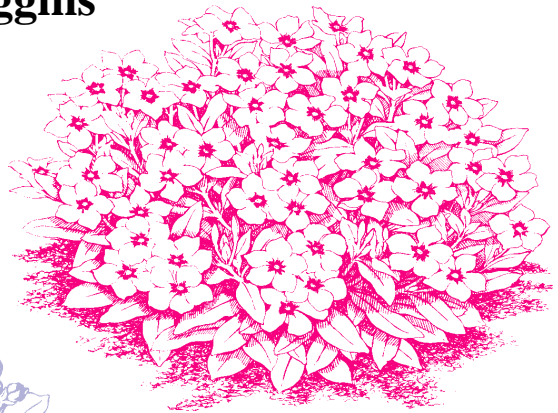


1997
NORTH CAROLINA STATE UNIVERSITY
BEDDING PLANT TRIAL GARDEN
REPORT

by
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Introduction

Over 450 entries of annual and perennial plants were evaluated during the 1997 bedding plant season at test gardens in Raleigh, North Carolina. The trial gardens are used each year to evaluate bedding plants for landscaper and home owner use.

The trial gardens are located at the Horticulture Field Lab, 4301 Beryl Road, in Raleigh. The site is located on latitude 35°47'N, longitude 78°42'W with an elevation of 400 feet. Transplants were grown in 2.5 inch × 2.2 inch containers, and most were planted in the trial garden on 13 May 1997. A few slower selections were planted when ready. Plant spacing in the trials was 18 inches × 24 inches (in-row × between-row spacing). Seven plants of each entry were used to evaluate the performance of the cultivars with the exception of All America Selections judged entries, which had 14 plants each.

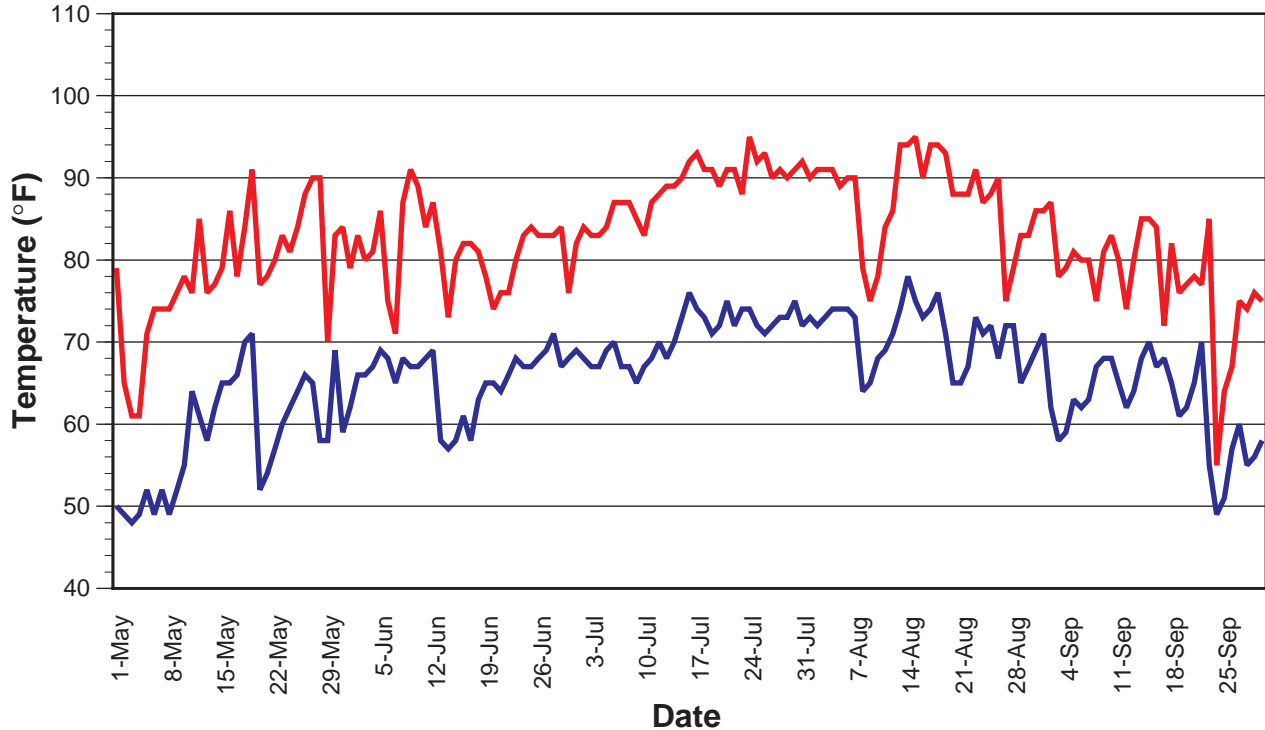


Figure 1. Daily minimum and maximum temperatures for Raleigh, North Carolina from May 1 through September 30, 1997.

Table 1. Solar energy, temperature and precipitation from May through September 1997 and 30 year temperature and precipitation averages for Raleigh, N.C.

Month	Daily average solar radiation received (Langley/day)	Daily average temperature (°F) and percent change from 30 year avg	30 year average daily temperature (°F)	Monthly precipitation (inches) and percent change from 30 year avg	30 year average monthly precipitation (inches)
May	561	65.0 (-5%)	68.1	2.39 (-43%)	4.22
June	457	71.9 (-4%)	74.9	4.76 (+28%)	3.73
July	499	79.6 (+1%)	78.8	5.63 (+16%)	4.84
August	526	77.0 (-1%)	78.0	0.92 (-80%)	4.52
September	391	71.3 (-1%)	72.1	2.09 (-46%)	3.85

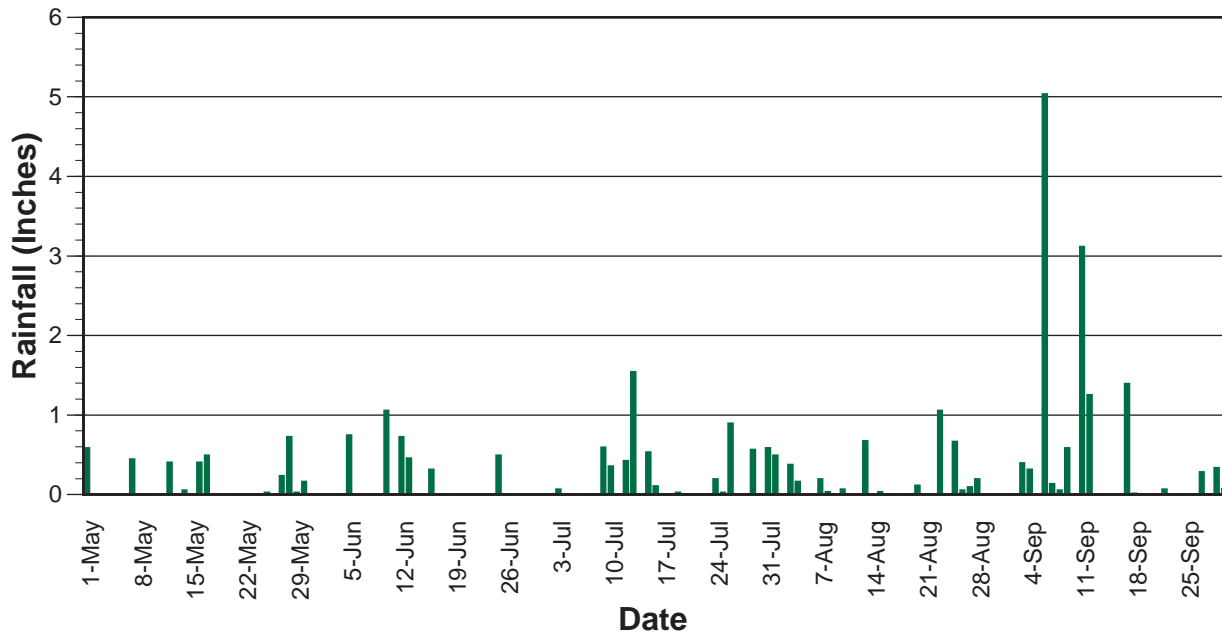


Figure 2. Rainfall received from May 1 through September 30, 1997.

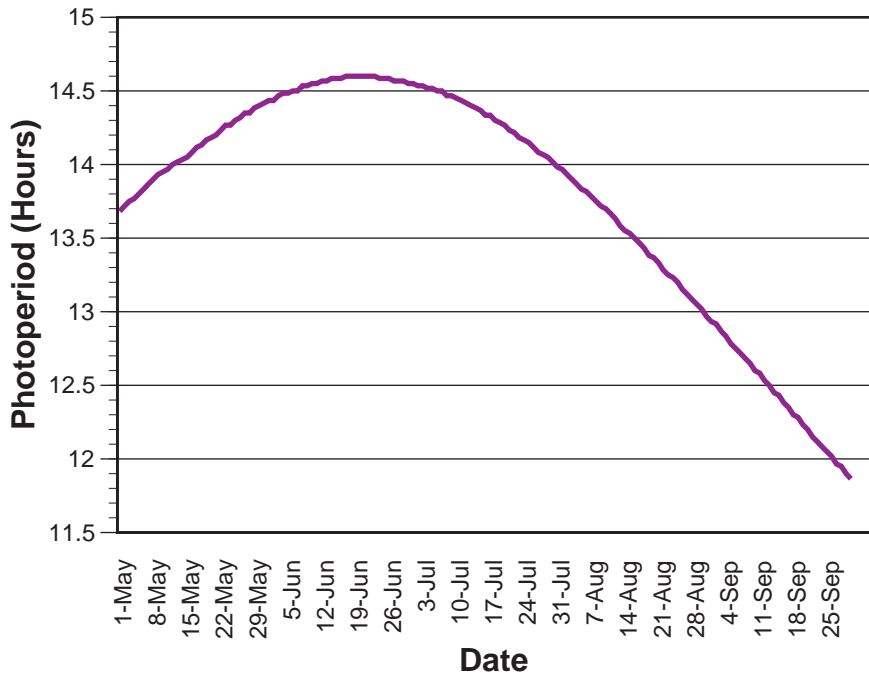


Figure 3. Photoperiod (sunrise to sunset) from May 1 through October 2.

1 and Figure 2) and much below of record 35.3 inches of rainfall during the 1996 season. May was much dryer than average; June and July rainfall was above average. August and September were well below average for rainfall.

Beds were pretreated with Basamid® for weed control prior to planting. Fertilizer was applied as a preplant incorporation and as dry applications during the bedding plant season. No insecticide applications were made during the evaluation in order to document major pest problems. No major pests were noted during the 1997 season, however the Japanese beetle population seems to increase every year in the gardens. Plant diseases were less prevalent in 1997 than in 1996 or 1995. The lack of rainfall may have accounted for the reduction in diseases such as *Rhizoctonia* that sometimes present a problem. The major disease problems included Botrytis blight and bacterial leaf spot on geraniums.

All plants were grown in full sun except for begonias, hypoestes, impatiens, New Guinea impatiens, setcreasea, and tuberous begonias; these were grown under 55% shade. When needed, water was applied using overhead irrigation.

Temperatures were cooler than normal during May and June and very close--slightly above in July and slightly below during August and September--to average for the remainder of the summer season (Table 1, Figure 1). Looking at the entire five month season, temperatures were moderate and averaged about 1.5% below normal (73 °F average daily temperature).

Rainfall received during the 5-month period (15.8 inches) was below our average of 21.2 inches (Table

Explanation of Cultivar Evaluations

Plants were given a visual rating by the same individual once a week beginning 4 June 1997, three weeks after planting through 19 weeks after planting; the final evaluation date was 24 September 1997. The rating was based on plant performance and appearance, including floriferousness, plant size and shape, and freedom from insect and disease problems. The rating scale used ranged from 1 (very poor) to 5 (excellent), with 0.5 unit increments; a 0 rating indicates all seven plants of the cultivar died. Weekly ratings were averaged (season average rating column in performance table) to provide an overall rating for the entire season. We used the seasonal average ratings to select the N.C. State Leaders of the Pack and the NCSU Exceptional Performance Winners. In addition to a numeric value indicating plant performance, a plus or minus value was given to indicate whether or not the plants were in flower. A dash after the numeric value in the performance table indicates that less than 50% of the plants were flowering that week. Average plant height and diameter data were taken for each cultivar during the last week of July, and this information (in inches) appears in the last two columns of the cultivar evaluation table. We believe that a mid-season plant size is a better representation of the plant appearance than end-of-season measurements, since many bedding plants decline in flowering and quality prior to the last week of evaluations.

The performance table is organized alphabetically by common names and in descending order within each species for overall seasonal average rating. A cultivar that received a seasonal average rating of 3.2 or above is considered an excellent choice for full-season (May through September) color. A seasonal average rating of 2.8 or above indicates the cultivar is a satisfactory choice for full-season color. A seasonal rating below 2.8 indicates the cultivar should not be used for full-season color, and the weekly ratings should be examined for peak performance periods. For example, a cultivar may have received an overall rating of 2.3, indicating it is not a good choice for full-season color, yet received weekly ratings of 2.8 and above during the spring/early summer. This suggests that the cultivar is a satisfactory choice for spring color, but not summer color. A decline during the summer indicates that a cultivar should be removed and replaced by a more heat and humidity tolerant selection for continuous bed color throughout the season.

Sources of Seeds and Plants

The following companies graciously sponsored the 1997 trial gardens. The companies are acknowledged in the ratings table and in the listings by the abbreviation that appears to the left of the company name. Appreciation is also given to Fafard, Inc. and to the North Carolina Commercial Flower Growers' Association for their contributions towards the trials.

- **AAS** All-America Selections, 1311 Butterfield Road, Suite 310, Downers Grove, IL 60515
- **BALL** Ball Seed Co., P.O. Box 335, West Chicago, IL 60185
- **BEN** Ernst Benary of America, Inc., 1444 Larson Street, Sycamore, IL 60178
- **BG** Bodger Seeds Ltd., 1800 North Tyler Avenue, Lompoc, CA 91733 3618
- **BWN** Berylwood Nursery, Inc., P.O. Box 2, Lexington, NC 27293-0002
- **DHN** Dæhnfeldt Inc., P.O. Box 947, Albany, OR 97321 98664
- **ECKE** Paul Ecke Ranch, P.O. Box 230488, Encinitas, CA 92023-0488
- **FIS** Fischer USA, Inc., 2955 Balmont Road Suite 110, Boulder, CO 80301
- **GOLD** Goldsmith Seeds, Inc., P.O. Box 1349, Gilroy, CA 95020
- **MI** Henry F. Michell Company, P.O. Box 60160, King of Prussia, PA 19406-0160
- **NCSU** Department of Horticultural Science, Box 7609, North Carolina State University
- **NOV** Novartis Flower Seeds, Inc., 5300 Katrine Avenue, Downers Grove, IL 60515-4095
- **OGL** Oglevee, Ltd., 152 Oglevee Lane, Connellsville, PA 15425
- **PA** PanAmerican Seed Co., P.O. Box 438, West Chicago, IL 60185
- **SAK** Sakata Seed America, Inc., 105 Boronda Road, Salinas, CA 93907

N.C. State Leaders of the Pack

The following were selected in 1997 on their ability to display attractive landscape color throughout the majority of the bedding plant season. At any one time, other species or entries may have made a better short-term showing, but the "Leaders of the Pack" were selected for consistent, dependable full-season performance as a source of color and beauty in the landscape. The cultivar source is shown in parenthesis.

Ageratum

'Blue Hawaii' (BG)

Begonia (Fibrous)

Mix: 'Partyfun Mix' (BEN)

Pink: 'Super Olympia Pink' (BEN), 'Ambassador Pink' (DHN), 'Victory Green Leaf Pink' (GOLD)

Red: 'Inferno Red' (DHN),

Rose: 'Eureka Bronze Rose' (NOV), 'Ambassador Rose Blush' (DHN), 'Ambassador Rose' (DHN)

White: 'Eureka Bronze White' (NOV), 'Inferno White' (DHN)

Begonia (Tuberous)

'Panorama Scarlet' (BEN)

Celosia

'Prestige Scarlet' (SAK)

Coleus

'Rose Trailer' (NCSU), 'Touchelay' (NCSU), 'Camellia' (NCSU), 'Alabama Sun' (BWN), 'El Brighto' (NCSU), 'Black Trailer' (NCSU)

Dianthus

'Floral Lace Picotee' (BALL), 'Floral Lace Light Pink' (BALL), 'Floral Lace Cherry' (BALL)

Geraniums From Cuttings

Coral: 'Lucille' (OGL)

Orange: 'Lollipop' (OGL)

Pink: 'Gypsy' (OGL), 'Melody' (OGL)

Red: 'Melody Red' (OGL), 'Sincerely Yours' (OGL), 'Tango' (FIS)

Salmon: 'Morning Mist' (OGL), 'Schoene Helena' (FIS)

White: 'Lotus' (FIS)

Geraniums From Seed

Coral: 'Pinto Coral' (NOV)

Red: 'Maverick Scarlet' (GOLD)

Impatiens

Blue/Violet: 'Dazzler Violet' (BALL), 'Super Elfin Violet Improved' (PA), 'Accent Violet' (GOLD)

Coral: 'Tempo Coral' (BG)

Mix: 'Carnival Mix' (DHN), 'Dazzler Merlot Mix' (BALL), 'Accent Peppermint Mix' (GOLD)

Orange: 'Tempo Orange' (BG)

Impatiens, continued

Pink: 'Carnival Pink' (DHN), 'Tempo Watermelon' (BG)

Red: 'Accent Cranberry Punch' (GOLD), 'Impulse Cranberry' (NOV), 'Accent Red' (GOLD)

Rose: 'Cajun Carmine' (NOV), 'Super Elfin Rose' (PA), 'Tempo Rose' (BG), 'Victorian Rose' (GOLD)

Salmon: 'Impulse Coral' (NOV), 'Accent Salmon' (GOLD)

White: 'Pride White' (SAK)

Lavender

'Lady' (AAS)

Marigold

Gold: 'Antigua Gold' (GOLD), 'Bounty Gold' (SAK)

Gold/Red: 'Hero Flame' (BG)

Red: '96BP03' (AAS), 'Safari Red' (BG)

Yellow: 'Bonanza Yellow Improved' (PA)

Narrow-Leaf Zinnia

'Crystal White' (AAS)

New Guinea Impatiens

Blue: 'Paradise Aruba' (ECKE)

Orange: 'Paradise Timor' (ECKE)

Orange/Red: 'Paradise Antigua' (ECKE), 'Pure Beauty Apollon' (ECKE)

Pink: 'Pure Beauty Jolana' (ECKE)

Red: 'Paradise Tarawa' (ECKE)

Salmon/White: 'Pure Beauty Melissa' (ECKE)

Nierembergia

'Purple Robe' (AAS)

Ornamental Pepper

'Velvet Elvis' (NCSU)

Osteospermum

'Sunscape Daisy Zimba' (ECKE)

Petunia

Blue/Purple: 'Purple Wave' (PA), 'Celebrity Lilac Morn' (BG), 'Plum Crazy Madness' (BALL)

Mix: 'Celebrity Watercolors Mix' (BG)

Pink: 'Pink Wave' (PA), 'Hurrah Pink' (NOV), 'Fantasy Pink' (GOLD), 'Fantasy Pink Morn' (GOLD), 'Eagle Pink' (SAK)

Petunia, continued

Red: 'Fantasy Crystal Red' (GOLD)

Rose: 'PrimeTime Rose' (GOLD)

White: 'Hurrah White' (NOV), 'White Madness' (BALL)

Yellow: 'Celebrity Chiffon Morn' (BG)

Plectranthus

'Silver' (BWN), 'Variegatus' (NCSU)

Salvia

Blue: 'Signum' (BG)

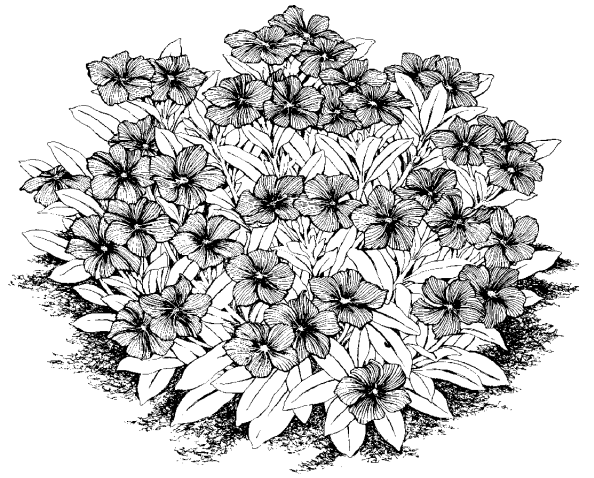
Purple: 'Salsa Light Purple' (GOLD)

Red: 'Red Vista' (PA)

Red/White: 'Salsa Scarlet Bicolor' (GOLD)

Rose: 'Salsa Rose' (GOLD)

White: 'Salsa White' (GLC)



Sweet Potato

'Sulfur' (NCSU), 'Pink Frost' (NCSU), 'Blackie' (NCSU)

Verbena

Blue/Purple: 'Imagination' (AAS)

Red: 'Quartz Scarlet' (PA)

Vinca

Blue/Purple: 'Blue Pearl' (PA), 'Grape Cooler' (PA), 'Heat Wave Grape' (BG)

Pink: 'Orchid Cooler' (PA), 'Blush Cooler' (PA), 'Icy Pink Cooler' (PA)

Rose: 'Rose Cooler' (PA)

Zinnia

'Profusion Orange' (AAS), 'Profusion Cherry' (AAS)

NCSU Exceptional Performance Winners

Each year, the best of the best, those cultivars that exemplify outstanding performance during the trials, will be recognized as Exceptional Performers. The winners are judged on full-season performance and are recommended as outstanding selections for our region. Growers, retailers and landscapers are encouraged to consider these cultivars first for their color needs. Only six cultivars were selected from over 450 entries in the 1997 trial garden. The seasonal average score and the source of the plants are given for each winner:

1997 Winners

- 1. *Begonia*, 'Ambassador Rose Blush' (4.6; Dæhnfeldt Inc.)**
- 2. *New Guinea Impatiens*, 'Paradise Aruba' (4.6; Paul Ecke Ranch) -- from cuttings**
- 3. *Sweet Potato*, 'Sulfur' (4.6; NC State University) -- from cuttings**
- 4. *Begonia*, 'Inferno Red' (4.5; Dæhnfeldt Inc.)**
- 5. *Begonia*, 'Eureka Bronze Rose' (4.5; Novartis Flower Seeds, Inc.)**
- 6. *Zinnia*, 'Profusion Orange' (4.5; Sakata Seed America, Inc.)**

1996 Winners

1. *Evolvulus* (*Evolvulus glomeratus grandiflorus*), 'Blue Daze' (4.8; Homewood Nursery) -- from cuttings
2. *Spur Flower* (*Plectranthus fosteri* 'marginatus'), (4.5; Homewood Nursery) -- from cuttings
3. *Mexican Heather* (*Cuphea hyssopifolia*), (4.4; Homewood Nursery) -- from cuttings
4. *Impatiens*, 'Accent Red' (4.3; Goldsmith Seeds, Inc.)
5. *Impatiens*, 'Super Elfin White Improved' (4.3; PanAmerican Seed Co.)
6. *Impatiens*, 'Super Elfin Melon' (4.3; PanAmerican Seed Co.)
7. *Vinca*, 'Peppermint Cooler' (4.3; PanAmerican Seed Co.)
8. *Vinca*, 'Icy Pink Cooler' (4.3; PanAmerican Seed Co.)

1995 Winners

1. *Petunia*, 'Purple Wave' (4.6; Homewood Nursery) -- from cuttings
2. *Petunia*, 'Purple Wave' (4.4; PanAmerican Seed Co.) -- from seed
3. *Verbena*, 'Homestead Purple' (4.4; Plant Delights Nursery) -- from cuttings
4. *Evolvulus* (*Evolvulus glomeratus grandiflorus*), 'Blue Daze' (4.4; Homewood Nursery) -- from cuttings

1994 Winners

1. *Salvia*, 'Cover Girl' (4.7; Ernst Benary of America, Inc.)
2. *Vinca*, 'Pretty In Rose' (4.6; Denholm Seeds)
3. *Salvia*, 'Lady In Red' (4.6)
4. *Hypoestes*, 'Pink Splash' (4.6; PanAmerican Seed Co.)
5. *Salvia*, 'Sizzler Lavender' (4.6; Clause Semences Professionnelles)
6. *Salvia*, 'Rhea' (4.6; Clause Semences Professionnelles)

1993 Winners

1. *Vinca*, 'Hot Streak Salmon' (4.8; G.S. Grimes Seeds)
2. *Impatiens*, 'Accent Lilac' (4.8; Goldsmith Seeds, Inc.)
3. *Begonia*, 'Stara Clear Rose' (4.8; Clause Semences Professionnelles)

1992 Winners

1. *Globe Amaranth*, 'Lavender Lady' (4.7)
2. *Evolvulus* (*Evolvulus glomeratus grandiflorus*), 'Blue Daze' (4.7; Homewood Nursery) -- from cuttings
3. *Mexican Heather* (*Cuphea hyssopifolia*) (4.6; Homewood Nursery) -- from cuttings
4. *Begonia*, 'All Round Greenleaved Pink' (4.6; Dæhnfeldt Inc.)

1991 Winners

1. *Evolvulus* (*Evolvulus glomeratus grandiflorus*), 'Blue Daze' (4.7; Homewood Nursery) -- from cuttings
2. *Mexican Heather* (*Cuphea hyssopifolia*) (4.7; Homewood Nursery) -- from cuttings
3. *Begonia*, 'All Round Greenleaved White' (4.5; Dæhnfeldt Inc.)
4. *Begonia*, 'Rio Pink' (4.5; Novartis Flower Seeds, Inc.)

1990 Winners

1. *Globe Amaranth*, 'Dwarf Buddy' (4.5)
2. *Vinca*, 'Grape Cooler' (4.5; PanAmerican Seed Co.)
3. *Impatiens*, 'Impulse Bright Eye' (4.4; Novartis Flower Seeds, Inc.)
4. *Celosia*, 'New Look' (4.4; Ernst Benary of America, Inc.)



Species Summaries

Ageratum

The ageratum entries did quite well during the entire season, and all three cultivars trialed rated at or above the 3.2 level indicative of full-season color. Usually, ageratum begins to decline in July with the onset of midsummer heat and thunderstorms, but this year was an exception. 'Blue Hawaii' topped the list of ageratum performers in our trials for the third year in a row.

Alyssum

Alyssum is an excellent early spring to early summer bedding plant for our area. However, as the weekly ratings indicate, plants do not hold up well once the heat of summer hits. Usually, alyssum plants will recover in autumn and once again flower as did 'Easter Bonnet Violet'.

Amaranthus

There is always room for new bedding plants and new sources of color for the annual garden. Amaranthus offers brilliantly colored foliage, but under our conditions, plants began to decline in appearance beginning in mid-July. Up to that point, they were very attractive.

Asclepias curassavica

Butterfly weed is a well-known flower in the Southeast, yet few are familiar with the close relative bloodflower (tropical butterfly weed). This orange/yellow-flowered plant reached a height of 3 feet and bloomed all summer long. It is easy to propagate from both seed and cuttings and is quite useful as a tall backdrop for the sun flower bed.

<u>Begonia Series Ratings</u>					
<u>Series</u>	<u>Number trialed</u>	<u>Source</u>	<u>Rating</u>	<u>Height (inches)</u>	<u>Diam. (inches)</u>
All Round	4	DHN	4.1	17	24
Ambassador	6	DHN	3.9	10.2	14.4
Eureka	6	NOV	4.2	10.5	15.7
Inferno	6	DHN	4.0	13.3	20.3
Senator	5	DHN	3.7	11.1	16.9
Super Olympia	5	BEN	3.9	12.6	16.6
Valentine	5	MI	3.5	11.6	14.9
Varsity	5	NOV	3.9	11.6	15.7
Victory	7	GOLD	3.7	10.1	14.1

Begonia

Fibrous-rooted begonias are traditionally our most dependable bedding plant. This year they lived up to their track record. We trialed 52 varieties as compared with only 24 in 1996 (there were 60 in 1995 and 44 in 1994). 'Eureka', a fairly compact begonia, was the best performing series followed closely by 'All Round' (a very large begonia) and 'Inferno' (moderately-sized plants). Series average ratings, mid-season heights and diameters are given above and highest rated cultivars of each leaf and flower color are listed below.

<u>Best Performing Begonia Cultivars</u>				
<u>Leaf Color</u>	<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Green	Mix	Partyfun Mix	BEN	4.3
	Pink	Super Olympia Pink	BEN	4.4
	Red	Inferno Red	DHN	4.5
	Red w/ White	Inferno Appleblossom	DHN	4.0
	Rose	Ambassador Rose Blush	DHN	4.6
	Scarlet	Eureka Scarlet	NOV	3.9
	White	Inferno White	DHN	4.3
	Bronze	Pink	Varsity Bronze Pink	NOV
Rose		Eureka Bronze Rose	NOV	4.5
Scarlet		Eureka Bronze Scarlet	NOV	4.1
White		Eureka Bronze White	NOV	4.4



Celosia

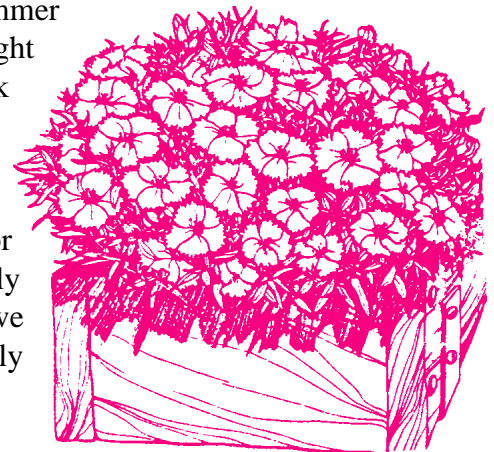
'Prestige Scarlet', a red plume-type celosia did very well all summer long. In past trials, celosia entries would cease flowering in September, but that was not the case this year.

Coleus

Call it coleus fever, one you should catch. There is a tremendous selection of vegetatively propagated coleus that hold up equally well in full sun as in heavy shade. We trialed 35 varieties; just a portion of what is in the trade. As a species, coleus averaged 3.7 for the entire trial, a very impressive rating. Only four of the cultivars rated below 3.2, the cut off for excellent full-season color. The major problem with evaluating coleus in a trial is describing the color scheme. How do you categorize leaf colors and shades that are as subtle as coleus? The top performing cultivars in our trials were 'Rose Trailer' (small rose and burgundy leaves with narrow green margins; margins are crenate; leaves are broadly ovate; trailing growth habit) and 'Touchelay' (ovate leaves that are rose, dark olive, and have yellow centers; margins have narrow green margins and are crenate; growth habit is upright). Most of the varieties were free from flowers until the end of July (denoted by a dash after the weekly rating number). Some such as 'Gay's Delight' and 'Ducksfoot' did not flower the entire season. The lack of flowering is desirable, as flower stalks are unattractive and should be removed from plants. If you have not seen the "new age" coleus, you are missing out on spectacular landscape color for sun and shade.

Dianthus

The dianthus performed well once again this year. It appears that the newer cultivars are more heat tolerant and can offer some color during the summer months. 'Floral Lace Picotee', 'Floral Lace Cherry' and 'Floral Lace Light Pink' were attractive enough to warrant notation as a Leader of the Pack for 1997.



Gazania

Gazanias have historically performed poorly in our trials. One major reason is that they appear to be a favorite food of rabbits that occasionally graze through the beds. We fence in our gazania selections (actually, we fence out the rabbits), however, none of the plants flowered consistently during the summer season, and all plants had died by mid-August.

Geraniums from Cuttings

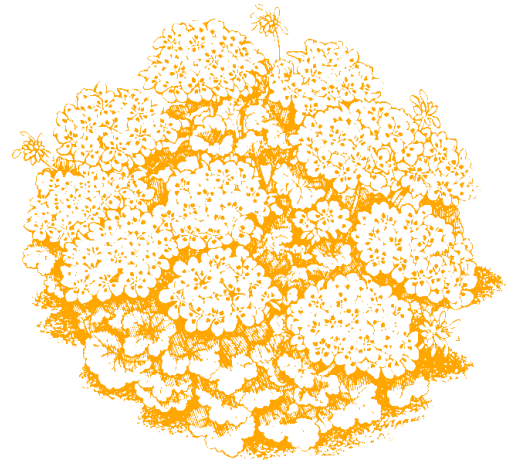
There were 22 cultivars of geraniums grown from cuttings in our 1997 trials. We did encounter some bacterial leaf spot starting in late July. There are many advances being made by breeders of cutting geraniums with respect to flower color and plant compactness. However, geraniums (from seed or cuttings) are still a labor-intensive bedding plant in our area requiring continuous dead heading to reduce Botrytis and to maintain flowering. The best performing cultivars of each flower color are given below.

Best Performing Cultivars of Geraniums from Cuttings

<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Orange	Lollipop	OGL	3.4
Pink	Gypsy	OGL	4.1
Red	Melody Red	OGL	4.1
	Sincerely Yours	OGL	4.1
Salmon	Lucille	OGL	4.4
White	Lotus	FIS	3.5

Geraniums from Seed

There were 14 cultivars of seed geraniums in the 1997 trials and the highest rated of each flower color is listed below. For the first time in six years, Pinto (avg. = 2.8; ht. = 9.6"; diam. = 14.3") was not the highest rated series of seed geraniums; Maverick was (avg. = 2.9; ht. = 9.8"; diam. = 16.5").



Best Performing Cultivars of Geranium from Seed			
<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Pink	97BP02	AAS	2.8
	Maverick Pink	GOLD	2.8
Red	Maverick Scarlet	GOLD	3.4
Salmon	Pinto Coral	NOV	3.4

Gypsophila

The novel small-flowering 'Garden Bride' and 'Gypsy' were very attractive until early August, similar to performance last two years. They are an interesting addition to the early summer bedding plant array, but will not supply full-season color.

Hypoestes

Polka dot plants have been gaining more attention as bedding plants. Hypoestes are grown for their attractive foliage and not the small, inconspicuous flowers. Plants of 'Confetti Mix' stayed compact and are a useful source of color for the shade bed.

Impatiens Series Ratings					
<u>Series</u>	<u>Number trialed</u>	<u>Source</u>	<u>Rating</u>	<u>Height (inches)</u>	<u>Diam. (inches)</u>
Accent	12	GOLD	3.8	15.3	23.8
Cajun	4	NOV	3.9	17.5	24
Carnival	11	DHN	3.7	16.5	23.8
Dazzler	15	BALL	3.6	14.2	23.6
Impulse	4	NOV	3.8	15.8	24
Pride	4	SAK	3.9	16.8	24
Super Elfin	9	PA	3.7	12.8	23.1
Tempo	18	BG	3.7	14.6	23.7

Impatiens

The number of impatiens cultivars continues to increase. In 1994, we trialed 38 cultivars. That number has increased each year, and in 1997 we trialed 85 varieties! Impatiens rank very highly as a bedding plant choice with consumers and its not surprising when you look at their landscape performance. All but one of the

Best Performing Cultivars of Impatiens			
<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Blue/Violet	Dazzler Violet	BALL	3.8
	Super Elfin Violet Impr.	PA	3.8
Mix	Carnival Mix	DHN	4.1
	Dazzler Merlot Mix	BALL	4.1
	Accent Peppermint Mix	GOLD	4.1
Orange	Tempo Orange	BG	4.2
	Carnival Pink	DHN	4.2
Pink	Tempo Watermelon	BG	4.2
	97BP03	AAS	4.2
	Accent Cranberry Punch	GOLD	4.3
Red	Impulse Cranberry	NOV	4.3
	Cajun Carmine	NOV	4.2
Rose	Super Elfin Rose	PA	4.2
Salmon	Tempo Coral	BG	4.1
White	Pride White	SAK	4.2

cultivars we tested in 1997 were acceptable choices for full-season color (rated 2.8). All but seven (92%) were considered excellent choices for full season color (rated 3.2). The series ratings (with at least three entries per series) are listed above. The Cajun (known as a compact pak plant yet the largest in our trials once planted outdoors) and Pride (new from Sakata) series were rated highest. There was actually very little difference between series performance this year (note the range was 3.6 to 3.9). About the only noticeable growth habit difference is the relative compactness of Super Elfin as compared to the rest.

Lavender

This All American Selection would perform better in our trials if we had a perennial situation. The plants are attractive when planted, and they began to flower by mid-June and continued through the remainder of the summer.

Lisianthus

The lone lisianthus entry, 'Heidi Mix', did not fare well in our trials. Plants were only in flower for about 6 weeks and began to die by early August. An earlier sowing date (transplanting larger plants into the trials) may help in future success with lisianthus.

Marigold

Marigolds continue in their popularity, and we trialed 31 entries in 1997. Plants were most attractive during early and mid-season, with peak blooming occurring during late July and throughout August. Dead heading (removal of spent inflorescences) is an essential labor input to

maintain attractive marigolds in the landscape. Gardeners and landscapers alike will be rewarded with more attractive flowering if they make the effort to remove dead flowers all season long. Series ratings and highest

ranked cultivars for each flower color are listed above and to the left. There was little difference among the averages of the seven series tested this year, but some size differences were noted (Little Hero and Bounty were the smallest; Bonanza the largest series). Hero was the highest ranked series of marigold in 1997.

<u>Series</u>	<u>Number trialed</u>	<u>Source</u>	<u>Rating</u>	<u>Height (inches)</u>	<u>Diam. (inches)</u>
Antigua	4	GOLD	3.0	11.8	15.5
Bonanza	3	PA	3.1	14.5	22
Bounty	3	SAK	3.1	10.8	17.5
Disco	3	BG	2.4	11.8	17
Hero	5	BG	3.2	14.2	19
Little Hero	4	BG	2.9	10	15.9
Safari	6	BG	3.2	12.2	18.8

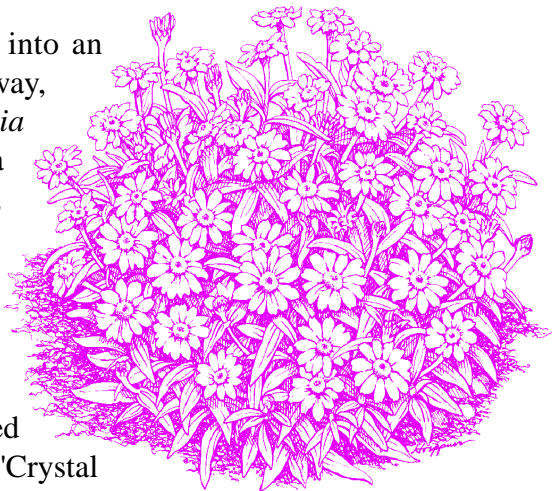
<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Gold	Antigua Gold	GOLD	3.4
Gold w/ Red	Hero Flame	BG	3.3
Orange	Hero Orange	BG	3.2
Red	96BP03	AAS	3.9
Yellow	Bonanza Yellow Impr.	PA	3.3
Yellow w/ Red	Hero Bee	BG	3.2

Melampodium

'Derby' did not fair well and plants began to die by early August. The problem appeared to be a root rot of some type, but we were unable to diagnose the cause of plant loss.

Narrow-Leaf Zinnia

Zinnia angustifolia (synonym is *Z. linearis*) is evolving into an important bedding plant for the Southeast. To help it along its way, we have separated this species out from garden zinnias, *Zinnia violacea* (synonym is *Z. elegans*), and are evaluating them as a separate species. These plants form attractive domes of white, yellow and orange. They are tolerant of powdery mildew and rarely show symptoms. Although the flowers are smaller than garden zinnias, the color impact of plants is just as great if not greater due to the large number of flowers open at any given time. We have trialed narrow-leaf zinnias in extremely wet summers, dry summers, and "normal" summers and they performed well under all conditions. This year, the All-America Selection 'Crystal White' was excellent, and the seasonal average was 3.6.



New Guinea Impatiens

The flower and leaf color diversity of this species warrant a complete trial by itself. We only looked at 21 cultivars (18 from cuttings and three from seed) and they all performed very well. Due to the diverse color range, it isn't possible to list the best of each color. New Guineas continue to grow in their popularity and in use. They do require faithful watering in the landscape for best flowering and overall plant appearance.

Nicotiana

The flowering tobacco flowered earlier and longer this year as compared to the past five years. The last time nicotiana has been rated above 2.8 was in 1991, and 'Prelude Lime' rated 3.0 this year. Still, nicotiana does not appear to be a reliable source of full season color for North Carolina.

Nierembergia

'Mont Blanc' is a previous AAS and Fleuroselect Award Winner that survived our early and midsummer conditions quite well (up to mid-August). The white flowers and compact growth habit make nierembergia a good choice for a bed border plant, especially for a partially shaded location. 'Purple Robe' and '973P06' out performed 'Mont Blanc' in our trials. Here is another bedding plant that is under utilized in our Southern landscape. Our major problem with nierembergia is poor germination and seedling production. They require more attention than most bedding plant seedlings.

Ornamental Pepper

Not all bedding plants need showy flowers to be an attractive source of color, and ornamental peppers definitely do not have showy flowers. Our lone entry, 'Velvet Elvis' was a seedling selection from our pepper program here at NC State University. The foliage has attractive shades of green, white, and purple; fruit are multiple colors as well. Though not a major bedding plant, ornamental peppers warrant use and attention as novelties in the landscape.

Osteospermum

Sparkler Daisy, *Osteospermum ecklonis*, is a relatively new bedding plant for our trials. This year we examined selections from cuttings as well as from seed. Overall, plants tended to flower best during cooler weather. Some of the plants died during the summer, perhaps from the high temperatures and high humidity plus rainfall. Two of the three cutting selections from Ecke, 'Sunscape Daisy Zimba' and 'Sunscape Daisy Lusaka' seemed to hold up much better than the other varieties. However, even these plants did not flower as much during midsummer as they did earlier in the season.

Pentas

Pentas has much potential as a flowering potted plant; and perhaps as a bedding plant also. Although the plants failed to flower until early July, they were very attractive during the second half of the summer.

Petunia

Petunias continue to perform well for us. There were 99 varieties trialed in 1997; that's 21% of our trials! The highest rated cultivars are listed on the next page by flower color. Last year's difficulties with Hurricane Fran affected the ratings of many plants including petunias. This year's ratings are closer to "normal". Over 77% (77 out of 99) of the petunias averaged at or above the 2.8 demarcation for acceptable full season color; 29% rated as excellent choices for full season color. 'Purple Wave' was our highest rated petunia cultivar in 1997 and averaged 4.1 for the season.



Best Performing Petunia Cultivars

<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Blue	Purple Wave	PA	4.1
Mix	Celebrity Watercolors Mix	BG	3.3
Pink	Pink Wave	PA	3.9
	Hurrah Pink	NOV	3.8
Red	Fantasy Crystal Red	GOLD	3.2
Rose	PrimeTime Rose	GOLD	3.5
Salmon	Hurrah Salmon	NOV	3.1
White	Hurrah White	NOV	3.4
Yellow	Celebrity Chiffon Morn	AAS	3.5

Of these 29 best performing cultivars listed (rated at or above 3.2), 14 were multiflora types, eight were grandifloras, two were floribundas, and five were millifloras. The petunia series ratings are given below. Hurrah and Fantasy were the top performing series, with Eagle and PrimeTime close behind. In terms of major size differences, Fantasy plants were definitely more compact than the remaining series.

Phlox

Phlox requires more moderate temperatures than offered in Raleigh. All of the plants had died by late July.

Plectranthus

Both species of plectranthus that we tested were excellent sources of full-season vegetative color. *Plectranthus amboinicus* 'variegatus' is more compact (12" height) and has light green foliage with white margins. The larger leafed *Plectranthus argentatus* (silver plectranthus) has gray-silver foliage and a more upright (24" height) growth habit. Both are good contrast plants for flowering plants, especially pinks and blues.

Petunia Series Ratings

<u>Series</u>	<u>Number trialed</u>	<u>Source</u>	<u>Rating</u>	<u>Height (inches)</u>	<u>Diam. (inches)</u>
Aladdin	14	BG	2.8	11	24
Carpet	7	BG	2.9	12.4	24
Celebrity	24	BG	3.0	13.3	24
Dreams	9	PA	3.0	11.2	24
Eagle	4	SAK	3.1	10.8	24
Fantasy	9	GOLD	3.2	10.3	16.2
Hurrah	6	NOV	3.2	12.5	20
Madness	6	BALL	3.0	12.8	24
PrimeTime	5	GOLD	3.1	13.6	24
Storm	4	GOLD	3.0	11.9	24
Ultra	6	GOLD	2.9	12.2	24

Portulaca

Portulaca flowered very well throughout most of the season. As is usual with portulaca, flowering and overall plant appearance declined beginning in early August. Still, moss rose is a dependable low-growing early summer annual for our area.

Rudbeckia

'Indian Summer' was slow to flower, but once flowering began in late June, the plants were attractive until mid-September. 'Sonora' began flowering earlier, but plants stopped growing and flowering in early August and were dead by late August.

Salvia

This year we planted 13 cultivars--11 *Salvia splendens*, and two *S. farinacea*. By far the toughest species for our region is *Salvia farinacea*, but it does not have the vivid red color found with *S.*

Best Performing Salvia Cultivars

<u>Flower Color</u>	<u>Cultivar</u>	<u>Species</u>	<u>Source</u>	<u>Rating</u>
Blue	Signum	<i>farinacea</i>	BG	3.9
Purple	Salsa Light Purple	<i>splendens</i>	GOLD	3.6
Red	Red Vista	<i>splendens</i>	PA	4.1
White	Salsa White	<i>splendens</i>	GOLD	3.4

splendens. The best salvia in 1997 was 'Red Vista', a compact grower that was covered with flowers all season long. The new Salsa series offers a wide array of inflorescence colors and as with other salvia, flowering can be maintained all summer long when spent flower heads are constantly removed.

Setcreasea

This purple-leaved trailing plant is *Tradescantia pallida* (synonym *Setcreasea pallida*) and is being used more and more in the landscape due to its durability in both full sun and shade (we grew it both in full sun as well as in 55% shade last year and it did well in both). The dark foliage offers a nice contrast to light flowers, such as white impatiens and begonias.

Sunflower

Neither sunflower did well in our trials. By mid-July, plants had quit flowering; by late August, all plants were dead. Sunflowers seem too short-lived for a source of full-season color in the landscape. They may be best used as accent color that is removed after the flowering period is over.

Sweet Potato

A few years ago, 'Blackie' was introduced and evaluated as a potential bedding plant. Its dark purple foliage and rapid growth habit made it popular with landscapers and gardeners who had large areas they wished covered in color quickly. Last year we also planted 'Sulfur', which has brilliant lime green / chartreuse foliage and the same rapid growth habit. This year we also tried 'Pink Frost', a slower growing tricolor (green, white and pink on the leaves). All three are good choices for sites requiring rapid growth.

Tithonia

Tithonia rotundifolia or Mexican sunflower is a native of Mexico and Central America that has bright orange flowers most of the growing season. Unfortunately, our plants were severely injured by powdery mildew starting in late July and plant quality declined rapidly thereafter; they never recovered completely.

Trachelium

Throatwort is perhaps best known as a garden cut flower, but 'Passion In Violet' is a good compact variety for use as a bedding plant. Plants did not flower until early July and were covered with blue flower heads until the end of the trials.

Tritoma

Tritoma or red hot poker (*Kniphofia uvaria*) is a perennial in our area, but was submitted as an annual bedding plant. The plants were quite compact and during the three weeks they were in flower (mid-July through early August), they were very attractive. Unfortunately, they offered little color the remainder of the season.

Tuberous Begonia

In past years, the tuberous begonia selections have done very well, once up to size. This year, we planted out more mature plants and they performed much better than in past years. 'Panorama Scarlet' was exceptional. They are best used as a patio plant, window box plant, hanging basket, or filler for other planters that allow close-up viewing of their large, brilliantly colored flowers.

Verbascum

Verbascum or mullein was new in the 1997 trials. The flowers were borne on slender spikes and were interesting when open. Unfortunately, the flowering period was limited to only five weeks during July and August.

Verbena

There were eight varieties of verbena tested in 1997, and four of them rated at or above the 3.2 demarcation as an excellent choice for full-season color. Viewing these plants in the landscape confirms that verbenas deserve much more attention in the color bed, even when grown as annuals.

Vinca

Vinca continues to be a top-performing bedding plant for our hot, humid conditions. Each year the color selection increases, and there were 18 entries in 1997. All but three were rated at or above the 3.2 level for excellent full season color. Of the two series in the trial, Cooler was much showier, exhibiting more flowers than Heat Wave throughout the summer. The best cultivars in each color are listed below.

Zinnia

The two garden zinnia cultivars in the 1997 trials were a pleasant surprise. Both 'Profusion Cherry' and 'Profusion Orange' were remarkably resistant to mildew, and plants flowered all summer long. The compact growth habit in combination with continuous flowering makes these zinnias worth trying in the landscape.

Best Performing Vinca Cultivars

<u>Flower Color</u>	<u>Cultivar</u>	<u>Source</u>	<u>Rating</u>
Blue/Purple	Blue Pearl	PA	3.7
Pink	Orchid Cooler	PA	3.6
	Blush Cooler	PA	3.6
	Icy Pink Cooler	PA	3.6
Red/Rose	Rose Cooler	PA	3.8

Vinca Series Ratings

<u>Series</u>	<u>Number trialed</u>	<u>Source</u>	<u>Rating</u>	<u>Height (inches)</u>	<u>Diam. (inches)</u>
Cooler	8	PA	3.5	11.2	21.6
Heat Wave	6	BG	3.1	11.3	21



Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter	
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39			
Ageratum	Blue Hawaii	BG	3.4	3	3	3	3.5	3.5	3.5	4	3.5	3.5	3.5	3	3	3.5	3.5	3.5	3.5	3.5	6.5	17.5	
Ageratum	White Hawaii	BG	3.2	3	3	3	3.5	3.5	3.5	3.5	3	3	3	3	3	3	3	3.5	3.5	3.5	8	18.5	
Ageratum	Royal Hawaii	BG	3.1	3	3	3	3	3	3	3.5	3	3.5	3	3.5	3	3	3	3	3.5	3.5	5	13.5	
Alyssum	Easter Bonnet Violet	AAS	2.6	3	2.5	2.5	2-	2-	2-	2.5	2.5	2.5	2.5	2.5	2.5	3	3.5	3	3	3	3.5	10	
Alyssum	97BP01	AAS	2.2	3	2.5	2.5	2-	2-	1.5-	2.5	2.5	2	1.5-	1.5	1.5	2	2.5	2.5	3	2.5	3	11	
Alyssum	Wonderland Purple	AAS	2.0	3	3	3	2-	2-	2.5-	3	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	13	
Amaranthus	Tricolor Splendens Perfecta	SAK	1.9	3-	3-	3-	3-	3-	3-	3-	1.5-	1.5-	2-	1.5-	1.5-	1.5-	1-	0	0	0	28	8	
Amaranthus	Aurora	SAK	1.7	3-	3-	3-	3-	3-	3-	3-	1.5-	1.5-	1.5-	1-	1-	1-	.5	.5-	0	0	28	8	
Asclepias curassavica	Bloodflower	BWN	3.2	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	3	3	36	24	
Begonia	Ambassador Rose Blush	DHN	4.6	3.5	3.5	3.5	4	4.5	4.5	5	5	5	4.5	4.5	5	5	5	5	5	5	10	14	
Begonia	Inferno Red	DHN	4.5	3.5	3.5	4	4.5	4.5	5	5	5	5	5	5	5	5	4.5	4.5	4	4	17	23	
Begonia	Eureka Bronze Rose	NOV	4.5	3.5	3.5	3.5	3.5	4	4	4.5	4.5	5	5	5	5	5	5	5	5	5	11	14.5	
Begonia	Super Olympia Pink	BEN	4.4	3	3	3.5	3.5	4	4.5	5	5	5	5	5	5	5	5	4.5	4.5	4.5	12	17	
Begonia	Eureka Bronze White	NOV	4.4	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	5	5	5	5	5	5	4.5	4.5	14.5	20	
Begonia	Ambassador Rose	DHN	4.4	3.5	3.5	3.5	3.5	4	4	4.5	4.5	4.5	5	5	5	5	5	5	4.5	4.5	12	15	
Begonia	Ambassador Pink	DHN	4.4	3	3.5	3.5	4	4	4.5	4.5	4.5	4.5	5	5	5	5	5	4.5	4.5	4.5	10	15	
Begonia	Partyfun Mix	BEN	4.3	3	3.5	3.5	4	4	4.5	5	5	5	4.5	4	4	4.5	4.5	4.5	4.5	4.5	18	20	
Begonia	Inferno White	DHN	4.3	3	3	3	3.5	3.5	4.5	4.5	5	5	5	5	5	5	4.5	4.5	4.5	4	13.5	21	
Begonia	Victory Green Leaf Pink	GOLD	4.3	3.5	3.5	3.5	3.5	4	4	4	4	4.5	5	5	5	5	4.5	4.5	4.5	4	11	16	
Begonia	Varsity Bicolor	NOV	4.2	3	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	13.5	16	
Begonia	All Round Greenleaved White	DHN	4.2	3.5	3.5	3.5	3.5	4	4.5	5	5	5	4.5	4.5	4.5	4.5	4	4	4	3.5	19	24	
Begonia	Victory Green Leaf Bicolor	GOLD	4.2	3	3	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	5	5	5	5	4.5	4.5	10	14	
Begonia	All Round Darkleaved Rose	DHN	4.1	3	3	3.5	4	4	4	4	4.5	5	5	4.5	4.5	4.5	4.5	4.5	4.5	4	4	19.5	24
Begonia	Eureka Rose	NOV	4.1	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	5	5	9	13.5
Begonia	Eureka White	NOV	4.1	3.5	3.5	3.5	3.5	4	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	8	15.5	
Begonia	Eureka Bronze Scarlet	NOV	4.1	3	3.5	3.5	3.5	3.5	4	4	4.5	5	5	5	4.5	4.5	4.5	4.5	4.5	4	3.5	9	14.5
Begonia	Senator Rose	DHN	4.1	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	12	16.5	

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Begonia	Senator Scarlet	DHN	4.1	3.5	3.5	3.5	3.5	3.5	4	4	4	4.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	11	21
Begonia	Inferno Rose	DHN	4.1	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	4	3.5	3	14	22	
Begonia	All Round Greenleaved Pink	DHN	4.0	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	5	4.5	4.5	4	4	4	3.5	3.5	17.5	24	
Begonia	Inferno Appleblossom	DHN	4.0	3	3	3.5	3.5	3.5	4	4	4	4.5	4	4	4.5	4.5	4.5	4.5	4.5	13	20	
Begonia	All Round Greenleaved Dark Rose	DHN	4.0	3.5	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4	4	3.5	3.5	12	24	
Begonia	Varsity Bronze White	NOV	4.0	3	3	3.5	3.5	4	4	4	4	4	4.5	4	4	4.5	4.5	4.5	4.5	13	16.5	
Begonia	Super Olympia Red	BEN	4.0	3	3	3	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	13.5	18	
Begonia	Inferno Pink	DHN	3.9	3	3	3	3	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4	4	3.5	3.5	13.5	22	
Begonia	Eureka Scarlet	NOV	3.9	3	3	3	3	3	3.5	3.5	4	4.5	4.5	4	3.5	5	5	4.5	4.5	11.5	16	
Begonia	Varsity Bronze Rose	NOV	3.9	3	3	3	3	3.5	3	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	10.5	14	
Begonia	Super Olympia Rose	BEN	3.8	3	3	3	3	3	3.5	3.5	3.5	4	4	4.5	4.5	5	5	4.5	4	10.5	15	
Begonia	Varsity Bronze Pink	NOV	3.8	3	3	3.5	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4	4	3.5	3.5	10.5	15	
Begonia	Varsity Bronze Scarlet	NOV	3.8	3	3	3	3	3	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4	10.5	17	
Begonia	Valentine Candy	MI	3.8	3	3	3	3	3.5	3.5	3.5	3.5	4	4	4.5	4.5	4.5	4	4	4	11	15	
Begonia	Super Olympia White	BEN	3.7	3	3	3	3	3.5	4	4	4	4	4	4	4	4	4	4	4	12	17	
Begonia	Victory Green Leaf Scarlet	GOLD	3.7	3	3	3	3	3	3	3.5	4	4.5	4.5	4.5	4.5	4	4	4	4	9.5	15	
Begonia	Victory Green Leaf Rose	GOLD	3.7	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4	11.5	15.5	
Begonia	Valentine Rose	MI	3.7	3	3	3	3	3	3	3.5	4	4	4.5	4.5	4.5	4.5	4	4	3.5	3.5	11	15
Begonia	Ambassador Scarlet	DHN	3.6	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	3.5	3.5	3.5	10	13
Begonia	Valentine Hearts	MI	3.6	3	3	3	3	3	3	3	3	3.5	4.5	4.5	4.5	4.5	4	4	4	12	15	
Begonia	Super Olympia Mix	BEN	3.6	3	3	3	3.5	3.5	3.5	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	15	16	
Begonia	Senator White	DHN	3.5	3	3	3	3.5	3.5	3.5	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	14	19	
Begonia	Senator Dark Rose	DHN	3.5	3	3	3	3	3	3	3	3	3.5	4	4	4	4	4	4	4	9	14.5	
Begonia	Victory Bronze Leaf Pink	GOLD	3.5	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	10	14	
Begonia	Ambassador White	DHN	3.4	3	3	3	3	3	3.5	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	11	16	
Begonia	Alfa Mix	DHN	3.4	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	4	4	4	13	17	
Begonia	Victory Bronze Leaf White	GOLD	3.4	3	3	3	3	3	3	3	3	3	3.5	3	3.5	3.5	4	4	4	9	11.5	

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Begonia	Vodka	BEN	3.4	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	12	13
Begonia	Senator Pink	DHN	3.2	3	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	9.5	13.5
Begonia	Valentine Bouquet	MI	3.2	3	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	12	15.5
Begonia	Inferno Rose	DHN	3.2	2	2	2	2	2	2.5	3	3	3	4.5	4	4	4	4	4	4	4	9	14
Begonia	Victory Bronze Leaf Scarlet	GOLD	3.1	3	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3	3	3	3	3.5	10	13
Begonia	Ambassador Dark Rose	DHN	3.0	3	3	3	3.5	3	3	3	3	3	3	3	3	3	3	3	3	3	8	13.5
Begonia	Valentine Lace	MI	3.0	2	2	2	2	2	2.5	3	3	3.5	3	3.5	3.5	3.5	3.5	4	4	4	12	14
Celosia	Prestige Scarlet	SAK	3.4	3	3	3	3	3	3	3.5	4	4	4.5	4	4	3.5	3.5	3	3	3	16	24
Coleus	Rose Trailer	NCSU	4.4	3-	3-	3.5-	3.5-	4	4.5	5	5	5	5	5	5	4.5	4.5	4.5	4.5	4.5	6	24
Coleus	Touchelay	NCSU	4.4	2-	3-	3-	3.5-	3.5-	4.5-	4.5-	5-	5-	5-	5	5	5	5	5	5	5	26	24
Coleus	Camellia	NCSU	4.3	3-	3-	3.5-	3.5-	4	3.5-	4	4	4	5-	5-	5-	5-	5-	5	5	5	24	24
Coleus	Alabama Sunset	BWN	4.3	3-	3-	3-	3-	3-	4	4.5-	4.5-	4.5-	5	5	5	5	5	5	5	5	23.5	24
Coleus	El Brighto	NCSU	4.2	3-	3-	3.5-	3.5-	4	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5	4.5	4.5	4.5	4.5	4.5	26	24
Coleus	Black Trailer	NCSU	4.2	3-	3-	3-	3.5-	3.5-	4.5	5	5	5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	12	24
Coleus	Cranberry Salad	BWN	4.1	3-	3-	3-	3-	3-	3.5-	4	4.5-	4.5-	5	5	5	4.5	4.5	4.5	4.5	4.5	26	24
Coleus	Gay's Delight	BWN	4.1	3-	3-	3-	3-	3.5-	4	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	23	24
Coleus	Ducksfoot	NCSU	4.0	3-	3-	3-	3.5-	3.5-	3.5-	4	4	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5-	10	24
Coleus	Burgundy Sun	BWN	4.0	3-	3-	3.5-	3.5-	3.5-	4	4.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	24	24
Coleus	Olive	NCSU	3.9	3-	3-	3.5-	3.5-	4	4.5-	4.5	4.5	4.5	4.5	4.5	4	4	4	4	3.5	3.5	25	24
Coleus	Yellow In Sun	NCSU	3.9	2.5-	3-	3-	3-	3-	4	4.5-	4	4	4.5-	4.5-	4.5-	4.5-	4.5-	4	4	4	21	24
Coleus	New Brilliance	NCSU	3.8	3-	3-	3-	3.5-	3.5-	3.5-	3.5-	3.5-	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	26	23
Coleus	Red Coat	NCSU	3.8	3-	3-	3-	3-	3.5-	4	4.5-	4.5-	4.5-	4	4	4	4	4	4	4	4	23	24
Coleus	Unknown Purple	NCSU	3.8	3-	3-	3.5-	4	4	4.5-	5-	4.5-	4.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	33	24
Coleus	Red Mars	NCSU	3.7	3-	3-	3-	3-	3.5-	4	4.5-	4.5-	4.5-	4.5-	4	3.5-	3.5-	3.5-	3.5-	3.5-	3.5-	16.5	20
Coleus	Ducksfoot	NCSU	3.6	3-	3-	3.5-	3.5-	3.5-	3.5-	4	4	4	4	4	4	4	3.5-	3.5-	3.5-	3.5-	11	24
Coleus	Solar Sunrise	NCSU	3.6	2.5-	2.5-	3-	3-	3-	3.5-	4	4	4	4	4	4	4	4	4	4	4	23	24
Coleus	Gilbert	NCSU	3.6	3-	3-	3.5-	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	28	24

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Coleus	Unknown #1	NCSU	3.6	3-	3-	3.5-	4-	4-	4-	4.5-	4.5	4.5	3.5	3.5	3.5	3	3	3	3.5	3.5	30	24
Coleus	Black Magic	NCSU	3.6	3-	3-	3-	3-	3.5-	4-	4.5-	4-	4.5-	4-	3.5-	3.5-	3.5-	3.5-	3.5-	3.5-	3.5-	28	24
Coleus	Inky Fingers	NCSU	3.6	3-	3-	3-	3.5-	3.5-	4-	4-	4-	4-	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	20	24
Coleus	Glen Laky	NCSU	3.5	3-	3-	3-	3-	3.5-	4-	4.5-	3.5-	3.5-	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	25	24
Coleus	Gold Giant	NCSU	3.5	3-	2.5-	2-	2-	2-	2-	2.5-	3.5-	4-	4.5-	4.5-	4.5-	4.5-	4.5-	4.5	4.5	4.5	20	20
Coleus	Columbo	NCSU	3.5	3-	3-	3-	3-	3-	3.5-	3.5-	3.5-	3.5-	4	4	3.5	3.5	3.5	3.5	4	4	23	24
Coleus	Rosa	NCSU	3.5	2.5-	2.5-	2.5-	2.5-	3-	3.5-	3.5-	3.5-	3.5-	4-	4-	4-	4-	4-	4-	4-	4-	16	20
Coleus	Golden Girl	NCSU	3.4	3-	3-	3-	3-	3.5-	3.5-	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	30	24
Coleus	Blusher	NCSU	3.4	3-	3-	3-	3.5-	3.5-	4-	4.5-	4-	4-	3.5	3	3	3	3	3	3.5	3.5	23	24
Coleus	Butter Cream	NCSU	3.4	3-	3-	3-	3-	3-	3.5-	4-	3.5-	3.5-	3.5-	3.5-	3.5	3.5	3.5	3.5	3.5	3.5	24	24
Coleus	Unknown	NCSU	3.3	2-	2-	2-	3-	3-	3.5-	4.5-	4-	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	31	24
Coleus	Olympic Torch	NCSU	3.3	2-	2-	2-	2-	2-	3-	3.5-	4.5-	4.5	4.5	4	4	4	3.5	3.5	3.5	3	24	23
Coleus	Lime Queen	NCSU	3.1	2-	2-	2-	2-	2.5-	3-	4-	3.5-	3.5-	3.5-	3.5-	3.5	3.5	3.5	3.5	3.5	3.5	24	24
Coleus	Solar Shade	NCSU	2.9	2-	2-	1.5-	1.5-	1.5-	1.5-	2-	3-	3.5-	4-	4-	4	4	4	4	4	3.5	17	19
Coleus	Max Levering	NCSU	2.6	1.5-	1.5-	1.5-	1.5-	1.5-	1.5-	2-	2-	3-	3-	3.5-	3.5-	3.5-	3.5	3.5	3.5	3.5	12	14
Coleus	Burgundy Flame	NCSU	2.4	2-	2-	2-	2-	2-	2-	2-	2-	2-	2.5-	3-	3-	3-	3-	3-	3-	3-	13.5	13.5
Dianthus	Floral Lace Picotee	BALL	3.6	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	3.5	6	11.5
Dianthus	Floral Lace Cherry	BALL	3.6	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	3.5	8.5	12
Dianthus	Floral Lace Light Pink	BALL	3.6	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	3.5	3.5	3.5	3.5	6.5	10
Dianthus	Floral Lace Violet Picotee	BALL	3.5	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	3.5	4	3.5	3.5	3.5	7	12
Dianthus	Floral Lace Purple	BALL	3.4	3	3.5	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	3.5	3.5	3	7	10
Dianthus	Floral Lace True Rose	BALL	3.4	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	7	10
Dianthus	Floral Lace Violet	BALL	3.1	3	3	3	3	3.5	3	3	3	3	3.5	3	3	3	3.5	3	3	3	8	11
Dianthus	Rosemarie Fire	BG	2.8	3	3	3	3	3	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.5	7.5
Gazania	Red Stripe	PA	1.0	3	3-	3-	2-	2-	1-	1-	5-	5-	5	0	0	0	0	0	0	0	0	0
Geranium (Cuttings)	Lucille	OGL	4.4	3	3	3	3.5	4	4.5	5	5	5	5	5	5	5	5	4.5	4.5	4	10.5	22
Geranium (Cuttings)	Gypsy	OGL	4.1	3	3	3.5	3.5	4	4	4.5	5	5	4.5	4.5	4.5	4.5	4.5	4	4	4	10	15

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Geranium (Cuttings)	Melody Red	OGL	4.1	3	3	3.5	3.5	4	4.5	4.5	4.5	4.5	4	4	4.5	4.5	4.5	4.5	4.5	4.5	8	14
Geranium (Cuttings)	Sincerely Yours	OGL	4.1	3	3	3.5	3.5	4	4.5	4.5	4.5	4.5	4	4	4	4.5	4.5	4.5	4.5	4.5	9	15
Geranium (Cuttings)	Morning Mist	OGL	4.0	3	3	3.5	3.5	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	4	3.5	11	19
Geranium (Cuttings)	Tango	FIS	3.8	3	3	3.5	3.5	4	4	4	4	4	3.5	3.5	4	4	4	4	4	4	8.5	12
Geranium (Cuttings)	Schoene Helena	FIS	3.7	3	3	3.5	4	4	4	4.5	4.5	4	4	4	4	4	4	3	3	2.5	7.5	16
Geranium (Cuttings)	Evening Glow	OGL	3.6	3	3	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4	4	3	3	2.5	9	17
Geranium (Cuttings)	Lotus	FIS	3.5	3	3	3.5	3.5	3.5	3.5	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	7.5	15
Geranium (Cuttings)	Melody	OGL	3.5	3	3	3	3.5	3.5	4	4	4.5	3.5	3	3	3.5	3.5	3.5	3.5	3.5	3.5	8	13
Geranium (Cuttings)	Lollipop	OGL	3.4	3	3	3	3	3	3	3.5	3.5	3.5	4	4	4	4	4	3	3	2.5	9	15
Geranium (Cuttings)	North Star	OGL	3.3	3	3	3	3.5	3.5	3.5	3.5	4	3.5	3	3	3	3	3	3.5	3.5	3	9	15
Geranium (Cuttings)	Yours Truly	OGL	3.1	3	3	3	3	3.5	3.5	3.5	3.5	3	3	3	3	3	3	3	3	2.5	7.5	13.5
Geranium (Cuttings)	White Truffle	OGL	3.1	3	3	3	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3	3	3	9	13
Geranium (Cuttings)	Valentine	OGL	3.0	3	2.5	3	3	3	3	3	3.5	3.5	3	3	3	3	3	3	3	2.5	7	11
Geranium (Cuttings)	Omega	FIS	2.9	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.5	2.5	2	5.5	10.5
Geranium (Cuttings)	Alba	FIS	2.8	3	3	3	3	3	3	3.5	3.5	3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	6	12
Geranium (Cuttings)	Patriot Light Pink	OGL	2.8	3	3	3	3	3	3	3	3.5	3	2.5	2.5	3	2.5	2.5	2.5	2.5	2.5	9.5	18
Geranium (Cuttings)	Sweet Temptation	OGL	2.8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	7	11
Geranium (Cuttings)	Bubble Gum	OGL	2.8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	6	11
Geranium (Cuttings)	Samba	FIS	2.6	3	3	3	3	3	3	3	3	3	2.5	2.5	2.5	2	2	2	2	2	5	11
Geranium (Cuttings)	Sincerity	OGL	2.6	3	3	3	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2	2	1.5	7	9
Geranium (Cuttings)	Joy	FIS	2.4	3	3	3	3	3	3	3	3	3	2	2	2	2	2	1.5	1	1	7	12
Geranium (Seed)	Pinto Coral	NOV	3.4	3-	3-	3-	3	3	3.5	3.5	4.5	4.5	4	4	4	3.5	3	3	3	2.5	9	15
Geranium (Seed)	Maverick Scarlet	GOLD	3.4	3-	3-	3	3	3	3.5	4	4.5	4.5	4	3.5	3.5	3.5	3	3	3	2	10	15
Geranium (Seed)	Pinto Red	NOV	3.2	3-	3-	3	3	3	3.5	4	4.5	4.5	3.5	3.5	3.5	3	2.5	2.5-	2	2	11	14
Geranium (Seed)	Maverick Light Salmon	GOLD	3.2	3-	3	3	3	3	3.5	4	4.5	4.5	4	3.5	3.5	3	2.5	2.5-	2	1.5	9.5	17
Geranium (Seed)	Maverick Red	GOLD	3.1	3-	3-	3-	3	3	3	3.5	4	4	3.5	3.5	3.5	3	3	2	2	2	11	19
Geranium (Seed)	97BP02	AAS	2.8	3-	3	3	3	3	3.5	4	4	3.5	3	2.5	2.5	2	2	2	2	2	10	15.5

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter	
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39			
Geranium (Seed)	Maverick Pink	GOLD	2.8	3-	3-	3	3	3	3	3	3.5	4	3	3	2.5	2.5	2.5	2.5	2	2	2	8.5	15
Geranium (Seed)	Ringo 2000 Red	NOV	2.7	3	3	3	3	3	3	3	3.5	3.5	3.5	3	2.5	2	2	1.5	1.5	1.5	8.5	15	
Geranium (Seed)	Maverick Coral	GOLD	2.6	3	3	3	3	3	3.5	3.5	4	4	3	3	2.5	2	1.5	1-	1	1	10	16	
Geranium (Seed)	97BP02	AAS	2.6	3	3	3	3	3	3.5	3.5	4	3	3	2.5	2	2	2	1.5	1.5	1	9	16	
Geranium (Seed)	Dynamo Deep Scarlet	NOV	2.6	3	3	3	3	3	3	3.5	3.5	3	3	3	2.5	2.5	2	1.5-	1-	1.5-	8	12	
Geranium (Seed)	Pinto Pink	NOV	2.6	3-	3	3	3	3	3.5	4	4.5	2.5	2.5	2	2	1.5	1.5	1.5	1.5	1.5	9	15	
Geranium (Seed)	Maverick Star	GOLD	2.2	3-	3-	3	3	3	3.5	4	3.5	2	2	1.5	1.5	1	1	1	1	1	10	17	
Geranium (Seed)	Pinto White	NOV	1.9	3-	3	3	3	3	2.5	2.5	2.5	1.5	1.5	1	1	1	1	1	1	.5	.5	9.5	13
Gypsophila	Garden Bride	DHN	2.1	3	3	3	3	3	3	3	3	2.5	2	1.5	1	1	1	1	1	.5	.5	8	14
Gypsophila	Gypsy	AAS	2.0	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3	1.5	1	1	.5	.5	0	0	0	6.5	14	
Hypoestes	Confetti Mix	DHN	3.0	3-	3-	3-	3-	3-	3-	3-	3-	3-	3-	3-	3	3	3	3	3	3	9	18	
Impatiens	Accent Cranberry Punch	GOLD	4.3	3	3.5	3.5	3.5	4	4	4.5	4.5	5	5	5	5	5	5	4.5	4	4	15.5	24	
Impatiens	Impulse Cranberry	NOV	4.3	3.5	3.5	3.5	3.5	3.5	4	4.5	4.5	5	5	5	5	5	4.5	4.5	4	4	22	24	
Impatiens	Carnival Pink	DHN	4.2	3.5	3.5	3.5	4	4	4.5	4.5	5	5	4.5	4.5	4	4.5	4.5	4.5	4	4	20	24	
Impatiens	Cajun Carmine	NOV	4.2	3	3.5	3.5	4	4	4	4	4.5	5	5	5	5	5	4	3.5	3.5	13.5	24		
Impatiens	Tempo Orange	BG	4.2	3.5	3.5	3.5	4	4	4.5	4.5	4.5	5	4.5	4.5	4.5	4.5	4.5	4	4	4	15.5	24	
Impatiens	Super Elfin Rose	PA	4.2	3	3.5	3.5	4	4	4	4.5	4.5	5	4	4	4	5	5	5	4.5	4	17	24	
Impatiens	Tempo Watermelon	BG	4.2	3.5	3.5	3.5	4	4	4.5	5	4.5	5	4.5	4.5	4.5	4.5	4	4	4	3.5	13	24	
Impatiens	97BP03	AAS	4.2	3	3	3.5	4	4	4	4.5	4.5	5	4.5	4.5	4.5	4.5	4.5	4.5	4	4.5	21.5	24	
Impatiens	Pride White	SAK	4.1	3.5	3.5	3.5	4	4	4	4	4.5	5	4.5	4.5	4.5	4.5	4.5	4	4	4	18	24	
Impatiens	Tempo Rose	BG	4.1	3	3	3	4	4	4	4	4	4.5	4.5	5	5	5	4.5	4	4	4	12.5	23	
Impatiens	Victorian Rose	GOLD	4.1	3.5	3.5	3.5	4	4	4	4.5	5	5	4.5	4	4.5	4.5	4	4	4	4	17	24	
Impatiens	Carnival Mix	DHN	4.1	3.5	3.5	3.5	3.5	3.5	4	4.5	4.5	5	4.5	4.5	4.5	4.5	4.5	4	4	4	15.5	24	
Impatiens	Carnival Deep Rose	DHN	4.1	3.5	3.5	3.5	4	4	4	4	4.5	5	5	5	5	5	4.5	3.5	3	3	15	24	
Impatiens	Dazzler Merlot Mix	BALL	4.1	3	3	3.5	3.5	3.5	4	4	4.5	5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	14.5	24	
Impatiens	Dazzler Rose	BALL	4.1	3	3	3	3.5	3.5	4	4.5	4.5	5	4.5	4.5	4.5	4.5	5	4.5	4.5	4	13	22	
Impatiens	Accent Peppermint Mix	GOLD	4.1	3.5	3.5	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	14	24	

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Impatiens	Accent Deep Pink	AAS	4.1	3	3	3.5	4	3.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	19.5	24
Impatiens	Tempo Coral	BG	4.1	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	4	4	4	4	4	4.5	4.5	4.5	13.5	24
Impatiens	Accent Red	GOLD	4.1	3	3	3.5	3.5	3.5	4	4.5	4.5	5	5	5	5	5	4.5	3.5	3.5	3.5	15	24
Impatiens	Cajun Red	NOV	4.0	3	3	3	3.5	3.5	3.5	4	4	5	5	4.5	5	5	4.5	4.5	4	3.5	20	24
Impatiens	Pride Red	SAK	4.0	3	3	3.5	3.5	3.5	3.5	4	4	4	4.5	4.5	5	5	5	4.5	4	4	20	24
Impatiens	Carnival Red	DHN	4.0	3	3	3.5	3.5	3.5	3.5	3.5	4	5	5	5	4.5	4.5	4.5	4.5	4	3.5	20	24
Impatiens	Tempo Burgundy	BG	4.0	3	3	3	3.5	3.5	3.5	4	4	4	4.5	4.5	5	5	5	4.5	4	4	18	24
Impatiens	Dazzler Pink	BALL	4.0	3	3	3.5	4	4	4.5	4.5	5	5	3.5	4	4	4	4	4	4	4	14	24
Impatiens	Super Elfin Pink	AAS	3.9	3	3	3	3.5	3.5	3.5	4	4.5	5	4.5	4	3.5	4	4.5	4.5	4.5	4.5	14	24
Impatiens	Impulse Coral	NOV	3.9	3	3.5	3.5	4	4	4	4	4.5	5	4.5	4.5	4	4	4	3.5	3.5	3.5	14	24
Impatiens	Mosaic Rose	GOLD	3.9	3	3	3	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	4	4	16.5	24
Impatiens	Accent Salmon	GOLD	3.9	3	3	3.5	4	4	4	4	4.5	4.5	4.5	4	4	4	4	4	4	4	14.5	23
Impatiens	Carnival Deep Pink	DHN	3.9	3.5	3	3.5	4	4	4	4.5	5	5	4	4	4	4	3.5	3.5	3.5	3.5	20.5	24
Impatiens	Showstopper Cherry	BALL	3.9	3	3.5	3.5	3.5	3.5	3.5	4	4	4.5	4.5	4.5	4	4	4.5	4	4	3.5	14	22
Impatiens	Super Elfin Melon	PA	3.9	3.5	3.5	3.5	4	4	4	4	4	4	4	4	3.5	3.5	4	4.5	4	4	12	24
Impatiens	Tempo Punch	BG	3.9	3	3	3.5	3.5	3.5	4	4.5	4.5	5	4	4	4	4	4	4	3.5	3.5	16	24
Impatiens	Super Elfin Red Impr.	PA	3.9	3	3	3	3	3	3.5	4	4	4.5	5	4.5	4.5	5	4.5	4	3.5	3.5	15	17
Impatiens	Accent Rose	GOLD	3.9	3	3	3.5	3.5	3.5	3.5	3.5	4	4.5	4	4	4	4.5	4.5	4.5	4	4	17	24
Impatiens	Pride Salmon Orange	SAK	3.8	3	3	3	3.5	3.5	3.5	4	4.5	5	4.5	4.5	4	4	4	4	3.5	3.5	14.5	24
Impatiens	Tempo Pink Frost	BG	3.8	3.5	3.5	3.5	4	4	4	4	4.5	5	3.5	3.5	3.5	3.5	3.5	4	4	3.5	16	24
Impatiens	Tempo Red	BG	3.8	3	3	3.5	3.5	4	4	4	4	4.5	4.5	4	4	4	4	4	3.5	3.5	17.5	24
Impatiens	Dazzler Peacock Mix	BALL	3.8	3	3	3	3	3	3.5	4	4.5	5	4.5	4.5	4	4	4	4	4	4	15	24
Impatiens	Dazzler Violet	BALL	3.8	3	3	3	3	3.5	3.5	3.5	4	4	4.5	4.5	4.5	4.5	4.5	4	4	4	13	24
Impatiens	Carnival Rose	DHN	3.8	3.5	3.5	3.5	3.5	3.5	4	4.5	4.5	4	5	4.5	4.5	3.5	3.5	3	3	3	13	24
Impatiens	Cajun White	NOV	3.8	3	3	3.5	4	3.5	4	4	4	4	4	4	4	4	4	4	4	3.5	20.5	24
Impatiens	Tempo Pink	BG	3.8	3	3.5	3.5	3.5	3.5	4	3.5	4	4	4	3.5	3.5	4	4	4.5	4.5	4	18.5	24
Impatiens	Dazzler Apricot	BALL	3.8	3	3.5	3.5	4	4	4	4	4	4	4	4	4	4	4	3.5	3.5	3.5	13.5	24

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Impatiens	Super Elfin Violet Impr.	PA	3.8	3	3	3	3	3	3.5	3.5	4	4	4	4	4	4.5	4.5	4.5	4.5	4.5	11	24
Impatiens	Super Elfin Lipstick Impr.	PA	3.8	3	3	3.5	4	4	4	4.5	4.5	4.5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	12	24
Impatiens	Accent Bright Eye	GOLD	3.8	3	3	3.5	3.5	3.5	3.5	3.5	4	4.5	3.5	3.5	4	4.5	4.5	4.5	4	3.5	17	24
Impatiens	Carnival Metallic Deep Salmon	DHN	3.7	3.5	3.5	3.5	4	4	4	4.5	4.5	5	4	4	3.5	3.5	3	3	3	3	15.5	24
Impatiens	Accent Salmon Picotee	GOLD	3.7	3	3	3	3.5	3.5	4	4	4.5	4.5	4	4.5	4	4	3.5	3.5	3.5	3.5	13	24
Impatiens	Tempo Blush	BG	3.7	3	3	3.5	4	4	4	4	4	4	4	3.5	3.5	4	4	3.5	3.5	3.5	18	24
Impatiens	Tempo White	BG	3.7	3	3	3.5	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	4	15	24	
Impatiens	Accent Violet	GOLD	3.6	3	3	3	3	3	3.5	3.5	4	4	4	3.5	4	4	4.5	4	4	4	14	24
Impatiens	Dazzler Red Star	BALL	3.6	3	3	3.5	3.5	3.5	3.5	3	3.5	3.5	4.5	4	4	4	4	4	3.5	3.5	16	21
Impatiens	Super Elfin Sunrise	PA	3.6	3	3	3	3	3	3	3	3.5	3.5	4	4	4.5	4.5	4.5	4.5	4	3.5	12.5	24
Impatiens	Cajun Lilac	NOV	3.6	3	3	3.5	3.5	3.5	3.5	3.5	4	4.5	4	4	4	4	3.5	3.5	3	3	16	24
Impatiens	Tempo Deep Pink	BG	3.6	3.5	3.5	3.5	4	4	4	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	18.5	24
Impatiens	Impulse Salmon Orange	AAS	3.6	3	3	3	3.5	3.5	3.5	3.5	4	4.5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	13.5	24
Impatiens	Tempo Violet	BG	3.6	3	3	3	3	3.5	3.5	3.5	3.5	3.5	4	4	4.5	4	4	3.5	3.5	3.5	12.5	24
Impatiens	Dazzler White	BALL	3.6	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	15.5	24
Impatiens	Dazzler Deep Pink	BALL	3.5	3	3	3	3.5	3.5	3.5	4	4.5	4.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	12.5	24
Impatiens	Carousel Mix	PA	3.5	3	3	3	3	3.5	3.5	3.5	3.5	4	4	4	4	4	3.5	3.5	3.5	3.5	16	24
Impatiens	Impulse Violet	NOV	3.5	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	3.5	3.5	3	3.5	13.5	24
Impatiens	Dazzler Burgundy	BALL	3.5	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	12	24
Impatiens	Dazzler Salmon	AAS	3.5	3	3	3	3	3	3.5	3.5	3.5	3.5	4	4	3.5	3.5	3.5	4	3.5	4	13	24
Impatiens	Carnival Orange	DHN	3.5	3	3	3	3	3	3.5	4	4	4.5	3.5	4	3.5	3.5	3.5	3.5	3	3.5	14	24
Impatiens	Super Elfin White Impr.	PA	3.4	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	14.5	24
Impatiens	97BP04	AAS	3.4	3	3	3	3.5	3.5	3.5	3.5	3.5	4	4	3.5	3.5	3	3	3.5	3.5	3.5	13	24
Impatiens	Carnival Scarlet	DHN	3.4	3	3	3	3	3.5	3.5	3.5	3.5	4	3.5	3.5	4	4	3.5	3.5	3	3	15	24
Impatiens	Pride Violet	SAK	3.4	3	3	3	3	3	3	3	3.5	3.5	4.5	4.5	4	4	3.5	3	3	3	14.5	24
Impatiens	Accent Orange	GOLD	3.4	3	3	3	3.5	3.5	3.5	3.5	3.5	4	4	4	3.5	3.5	3	3	3	3	15.5	24
Impatiens	Dazzler Violet Star	BALL	3.4	3	3	3	3.5	3.5	4	4	4	4	3	3	3.5	3.5	3	3	3	3	15	24

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Impatiens	Tempo Peach Frost	BG	3.3	3	3.5	3.5	3.5	4	3.5	4	3.5	3.5	3.5	3	3	3	3	3	3	3	12	23
Impatiens	Accent Lilac	GOLD	3.3	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	4	4	3.5	3.5	11	22
Impatiens	Mosaic Lilac	GOLD	3.3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	3.5	3.5	3	3	3	14	23
Impatiens	Accent White	GOLD	3.3	3	3	3.5	3.5	3.5	3.5	3.5	3	3.5	3.5	3.5	3.5	3	3	3	3	3	18	24
Impatiens	Carnival Lilac	DHN	3.2	3	3	3.5	3.5	3.5	3.5	3.5	3.5	4	3.5	3	3	3.5	3	3	2.5	2.5	17	24
Impatiens	Dazzler Lilac Splash	BALL	3.2	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	13.5	23
Impatiens	Tempo Blue Satin	BG	3.2	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	3	11	24
Impatiens	Tempo Apricot	BG	3.1	3.5	3.5	3.5	3.5	3	3.5	3.5	3.5	3.5	3.5	3	3	3	2.5	2.5	2.5	2.5	11.5	24
Impatiens	Tempo Lavender	BG	3.1	3	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3	3	3	3	9	22
Impatiens	Dazzler Cranberry	BALL	3.1	3	3.5	3.5	3.5	3.5	3.5	3.5	3	3	4	3	3	3	2.5	2.5	2.5	2.5	18.5	24
Impatiens	Showstopper Lilac	BALL	3.1	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3	3	3	3	3	2.5	3	11	23
Impatiens	Dazzler Blush	BALL	3.0	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	2.5	2.5	2	2.5	2.5	13.5	24
Impatiens	Carnival White	DHN	2.8	3	3	3.5	4	4	4	3.5	3	3	3	2	2	2	2	2	2	2	16	22
Impatiens	Tempo Lilac	BG	2.8	3	3	3	3	3	3	3	3	3	3	2.5	3	3	2.5	2.5	2	2.5	15.5	23
Impatiens	Super Elfin Deep Pink	PA	2.7	3	2.5	3	3	3	3	3	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2	2	2	7.5	23
Lavender	Lady	AAS	3.2	3-	3-	3	3.5	3.5	3.5	3.5	3.5	4	4	4	3.5	3	2.5	2.5	2.5	2	8	11
Lisianthus	Heidi Mix	SAK	1.9	3-	3-	3-	3-	3	2.5	2	2	2	1.5	1.5	1-	1-	1-	1-	1-	1-	10	4
Marigold	96BP03	AAS	3.9	3	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4	3.5	3.5	3	4	11	15
Marigold	Antigua Gold	GOLD	3.4	3	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4	3	1.5	5	13	18
Marigold	Bounty Gold	SAK	3.3	3	3	3.5	3.5	3.5	3.5	4	4	4	3.5	4	4	4	4	3	1.5	5	9.5	17
Marigold	Hero Flame	BG	3.3	3	3.5	3.5	3.5	3.5	4	4	4	4.5	4	4	3.5	3	3	2.5	2	1	13	21
Marigold	Safari Red	BG	3.3	3	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	3.5	3	2.5	2	1.5	5	12	17
Marigold	Bonanza Yellow Impr.	PA	3.3	3	3	3.5	3.5	3.5	3.5	4	4	4	4	4	3.5	3	3	2.5	2.5	1.5	15	23
Marigold	Hero Yellow	BG	3.2	3	3	3	3.5	3.5	3.5	4	4	4	3.5	3.5	3	3	3	3	3	1.5	17	22
Marigold	Safari Queen	BG	3.2	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	3.5	3	2.5	2	1	13	20
Marigold	Safari Yellow	BG	3.2	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	3.5	3	1	5	12.5	17
Marigold	Hero Orange	BG	3.2	3	3.5	3.5	3.5	3.5	3.54	3.5	4	3.5	3.5	3.5	3.5	3.5	3	3	2	1	15.5	16.5

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																Height	Diameter		
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38			39	
Marigold	Hero Bee	BG	3.2	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	3.5	2.5	2.5	1.5	12.5	16.5	
Marigold	Bounty Yellow	SAK	3.2	3	3	3	3	3.5	4	4	4	4	4	4	4	3	3	2.5	1.5	5	13	19	
Marigold	Safari Bolero	BG	3.1	3	3.5	3.5	3.5	3.5	4	4.5	4	4	4.5	4	3	2.5	2	2	1.5	5	11.5	18	
Marigold	Hero Spry	BG	3.1	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	2.5	2	1.5	13	19	
Marigold	Safari Gold	BG	3.1	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	2.5	1.5	12	17	
Marigold	Antigua Orange	GOLD	3.0	3	3	3	3	3	3.5	3.5	3.5	4	4	3.5	3.5	3	3	2.5	1.5	5	11.5	15	
Marigold	Disco Orange	BG	3.0	3	3	3	3	3	3.5	3.5	4	4	3	3.5	3.5	3	2.5	2	2	1	14	19	
Marigold	Little Hero Orange	BG	3.0	3	3	3	3	3	3	3	3.5	3.5	3	3	3	3.5	3.5	3.5	2	1	9	13	
Marigold	Little Hero Yellow	BG	3.0	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	2.5	2	5	12	21	
Marigold	Bonanza Bee Impr.	PA	3.0	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	2.5	2.5	2.5	2	1	11.5	20
Marigold	Safari Tangerine	BG	2.9	3	3.5	3.5	4	4	4.5	4.5	3	3	2.5	2.5	2.5	2.5	2	2	2	5	12	24	
Marigold	Bonanza Orange Impr.	PA	2.9	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	2.5	2.5	2.5	2	1	17	23
Marigold	Discovery Orange	BG	2.9	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	2.5	1.5	1	0	12	16
Marigold	Little Hero Flame	BG	2.8	3	3	3	3	3	3	3	3	3	3	3	3.5	3.5	3	3	2.5	2	5	10	14.5
Marigold	Bounty Spry	SAK	2.7	3	3	3	3	3	3	3.5	3.5	3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1	10	16.5	
Marigold	Little Hero Fire	BG	2.7	3	3	3	3	3	3	3	3.5	3.5	3	3	3	2.5	2.5	2.5	1.5	5	9	15	
Marigold	Antigua Primrose	GOLD	2.7	3	3	3	3	3	3.5	4	3.5	3.5	3	3	3	2.5	2.5	1.5	5	0	11	14	
Marigold	Disco Yellow	BG	2.6	3	3.5	3.5	3.5	3.5	3.5	3.5	4	3.5	3	2.5	2.5	2.5	2	2	2	5	0	12.5	18
Marigold	Discovery Yellow	BG	2.6	3	3.5	3.5	3.5	3	3	3.5	4	3.5	3	3	2.5	2.5	2	1	0	0	10	14.5	
Marigold	Antigua Yellow	GOLD	2.5	3	3	3	3	3	3.5	3.5	3.5	3.5	3	2.5	2.5	2	2	1.5	5	0	11.5	15	
Marigold	Disco Flame	BG	1.5	3	3	3	3	3	3	2.5	2	1.5	1	1	0	0	0	0	0	0	9	14	
Melampodium	Derby	BEN	2.3	3	3	3	3	3	3.5	3.5	3	2	2.5	2	1.5	1.5	1.5	1.5	1	1	17	24	
Narrow-Leaf Zinnia	Crystal White	AAS	3.6	3	3	3.5	3.5	3.5	3.5	4	4	4	4.5	4	4	4	3.5	3.5	3.5	3	10	17	
New Guinea Impatiens	Paradise Aruba	ECKE	4.6	3.5	3.5	3.5	4	4.5	4.5	5	5	5	5	5	5	5	5	5	4.5	4.5	9	21	
New Guinea Impatiens	Paradise Antigua	ECKE	4.4	3.5	3.5	3.5	4	4	4.5	4.5	4.5	4.5	5	5	5	5	5	5	4.5	4.5	12.5	17.5	
New Guinea Impatiens	Pure Beauty Apollon	ECKE	4.4	3.5	3.5	3.5	4	4.5	4.5	5	5	5	4.5	4.5	5	5	4.5	4.5	4.5	4.5	13	23	
New Guinea Impatiens	Paradise Timor	ECKE	4.3	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	12.5	15	

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter	
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39			
New Guinea Impatiens	Pure Beauty Melissa	ECKE	4.2	3.5-	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	12	20
New Guinea Impatiens	Paradise Lavender Blue	ECKE	4.1	3.5-	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	3.5	8	12.5
New Guinea Impatiens	Pure Beauty Jolana	ECKE	4.0	3-	3.5-	3.5	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	4	3.5	9.5	15	
New Guinea Impatiens	Paradise Tarawa	ECKE	3.8	3-	3.5	3.5	3.5	4	4	4	4	4	4	4	4	4	4	4	3.5	4	9	15	
New Guinea Impatiens	Paradise Tonga	ECKE	3.8	3-	3-	3	3	3	3.5	4	4	4	4.5	4.5	4.5	4.5	4.5	4	4	4	4	10	18
New Guinea Impatiens	Paradise Samoa	ECKE	3.8	3.5-	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	4	4	3.5	3.5	3	2.5	8	14.5	
New Guinea Impatiens	Paradise Pascua	ECKE	3.8	3.5-	3.5	3.5	3.5	3.5	4	4	4	4	4.5	4.5	4	4	4	3.5	3	3.5	7	13	
New Guinea Impatiens	Pure Beauty Orange On White	ECKE	3.6	3-	3-	3	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4	3.5	9.5	16.5	
New Guinea Impatiens	Paradise Woya	ECKE	3.5	3.5-	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	3.5	3	3	3	7.5	11.5	
New Guinea Impatiens	97BP05	AAS	3.5	3-	3-	3	3	3.5	3.5	3.5	3.5	3.5	4	4	3.5	3.5	4	4	3.5	3.5	11	23	
New Guinea Impatiens	Pure Beauty Red On Pink	ECKE	3.5	3-	3-	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	3.5	8	13	
New Guinea Impatiens	Pure Beauty Marpesia	ECKE	3.4	3-	3.5-	3.5	3.5	3.5	4	4	4	4.5	3.5	3	3	3	3	3	3	3	13	19	
New Guinea Impatiens	Spectra Salmon Shade	AAS	3.2	3-	3-	3-	3-	3-	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	11	16	
New Guinea Impatiens	Paradise Deep Coral	ECKE	3.1	3-	3	3	3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3	3	3	6	11	
New Guinea Impatiens	Paradise True Red	ECKE	3.1	3.5	3.5	3.5	3.5	3.5	3	3	3	3	3	3	3	3	3	3	3	3	9	15	
New Guinea Impatiens	Spectra Borneo Mix	AAS	3.0	3	3	3.5	3.5	3	3	3	3	3	3	3	3	3	3	2.5	2.5	2.5	10.5	14	
New Guinea Impatiens	Paradise Orange	ECKE	2.7	3-	3-	3-	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	6	9.5	
Nicotiana	Prelude Lime	AAS	3.0	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	2.5	2	2	1.5	11	17	
Nicotiana	Starship Cherry Blossom	BALL	2.7	3	3	3	3	3	3.5	3.5	3.5	3.5	3	3	2.5	2	2	1.5	1.5	1	8.5	12	
Nicotiana	Havana Mix	DHN	1.8	2-	2-	2	2	2	2	2	2	2	2	2	2	2	2	1	.5	.5	9	10	
Nierembergia	Purple Robe	AAS	3.4	3-	3-	3-	2.5	3	3	3.5	3.5	3.5	4	4	4	3.5	3.5	3.5	3.5	3.5	5	16	
Nierembergia	97BP06	AAS	3.2	3	3	3	3	3	3.5	3.5	3	3.5	4	4	3.5	3.5	3	3	3	2.5	7	19	
Nierembergia	Mont Blanc	AAS	2.9	3	3	3	3	3	3.5	3.5	3.5	3.5	4	3.5	3	2	2	2	2	2	7	18.5	
Ornamental Pepper	Velvet Elvis	NCSU	3.5						3.5-	4-	4-	4-	4.5	4	4	3.5	3-	3-	2.5-	2.5-	11	13	
Osteospermum	Sunscape Daisy Zimba	ECKE	3.6	3.5	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5	4	4	3.5	3	3	3-	3	3	13.5	24	
Osteospermum	Sunscape Daisy Lusaka	ECKE	3.3	3.5	3.5	3.5	3.5-	3.5	4.5	4.5	4	4	3.5	3	2.5	2.5	2-	2.5-	2.5-	2.5	16	24	
Osteospermum	Sunscape Daisy Sonja	ECKE	2.9	3.5	3.5	3.5	3.5-	3	3.5	3.5	3.5	3.5	3	2.5	2.5	2-	2-	2-	2-	2-	15.5	24	

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Osteospermum	Osteospermum Mix	AAS	1.4	3-	3-	3-	3	2.5	2.5	2.5	2	1-	5-	0	0	0	0	0	0	9	12	
Pentas	New Look Red	BEN	2.9	2-	2-	2-	2-	2.5	2.5	3	3	3.5	3	3	3.5	3.5	3.5	3.5	3.5	3.5	7.5	10
Petunia	Purple Wave	PA	4.1	3.5	3.5	4	4.5	4.5	5	5	5	5	4.5	4.5	4.5	2	2	3.5	4	4.5	8	24
Petunia	Pink Wave	PA	3.9	3.5	3.5	4	4.5	4.5	5	5	5	5	4	4.5	4.5	2	2	3	3	3.5	10	24
Petunia	Hurrah Pink	NOV	3.8	3	3.5	4	4	4.5	4.5	5	4.5	4.5	4	4	4	2	2.5	3	3.5	4	12	24
Petunia	Fantasy Pink	GOLD	3.6	3	3	3.5	3.5	4	4.5	4.5	4.5	4.5	4.5	5	5	2	2	2.5	2.5	3	10	17
Petunia	Fantasy Pink Morn	GOLD	3.6	3	3	3	3.5	4	4.5	5	5	5	4.5	4.5	4.5	2	2	2.5	2.5	2.5	10.5	17
Petunia	Eagle Pink	SAK	3.6	3	3.5	3.5	4	4.5	4	4	3.5	3.5	3	3	3	3	3.5	3.5	4	4	13	24
Petunia	Celebrity Lilac Morn	BG	3.5	3	3.5	4	4	4	4	4.5	4	4	4	4	4	2	2	2.5	3	3.5	11	24
Petunia	Celebrity Chiffon Morn	AAS	3.5	3	3	3.5	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3	3	3.5	3.5	3.5	10.5	24
Petunia	PrimeTime Rose	GOLD	3.5	3	3.5	4	4.5	4.5	4	3.5	3.5	3.5	4	4	4	2	2	3	3	4	8	24
Petunia	Plum Crazy Madness	BALL	3.5	3	3.5	4	4.5	4.5	4	4	3	3.5	3.5	3.5	3.5	2	2	3	3.5	4	13	24
Petunia	Celebrity Pink Morn	BG	3.4	3	3	3	3.5	4	4	4.5	4	4	4	4	4	2	2	2.5	3	4	21	24
Petunia	Hurrah Pink Vein	NOV	3.4	3	3.5	4	3.5	3.5	3	3.5	3.5	3.5	3.5	3.5	3.5	2.5	3	3.5	3.5	4	14.5	24
Petunia	Hurrah White	NOV	3.4	3	3	3.5	3.5	3.5	3.5	3.5	3	3	3	3	3	3	3.5	4	4.5	4.5	13	24
Petunia	Eagle Pastel Pink	SAK	3.4	3	3	3.5	3.5	3.5	3.5	3.5	3	3	3.5	3.5	3.5	2.5	3.5	4	4	4	11	24
Petunia	Fantasy Carmine	GOLD	3.4	3	3	3	3.5	4.5	4	4.5	4.5	4	4	4	4	2	2	2	2.5	3	12	17.5
Petunia	Aladdin Lilac	BG	3.4	3	3	3.5	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	2	2	3	4	4.5	12	24
Petunia	Celebrity Neon	BG	3.4	3	3	3	3.5	4	4	4	3.5	3.5	3.5	3.5	3.5	2-	2.5	3	3.5	4	12.5	24
Petunia	Dreams Pink	PA	3.3	3	3	3	3.5	4	3.5	4	3.5	3.5	4.5	4.5	4.5	2	2	2.5	2.5	3	16	24
Petunia	Celebrity Watercolors Mix	BG	3.3	3	3	3	3	3	3.5	4	3.5	4.5	4	4	4	2	2	3	3	3.5	12	24
Petunia	Ultra Lilac	GOLD	3.3	3	3	3.5	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	2	2	3	3.5	4	13	24
Petunia	Celebrity Lilac	BG	3.3	3	3.5	3.5	3.5	4	4	4.5	4	4	3	3	3	2	2	2.5	3	3	11	24
Petunia	White Madness	BALL	3.3	3	3	4	4	4.5	4	4	3.5	3.5	3	3	3	2-	2-	2.5	3	3.5	14	24
Petunia	Fantasy Blue	GOLD	3.3	3.5	3.5	4	4.5	4.5	4	4.5	3.5	3.5	3	3	3	2	2	2	2	3	12	16
Petunia	Celebrity Burgundy	BG	3.2	3	3	3	3.5	3.5	3.5	4	4	4	3.5	3.5	3.5	2	2	2.5	3	3.5	15	24
Petunia	Dreams Rose	PA	3.2	3	3	3.5	4	4	3.5	3.5	3	3	3.5	3.5	3.5	2	2	3	3	3.5	11	24

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Petunia	Celebrity Pink	BG	3.2	3	3	3	3.5	3.5	4	4	3.5	3.5	3	3	3	2	2.5	3	3	3.5	13	24
Petunia	Dreams Burgundy	PA	3.2	3	3.5	3.5	3.5	3.5	4	4.5	4	4	3	3	3	2	2	2.5	2.5	2.5	10	24
Petunia	Fantasy Crystal Red	GOLD	3.2	3.5	3.5	3.5	4	4.5	4	4	3	3	3	3	2	2	2.5	2.5	3	9	16	
Petunia	Ultra Blue	GOLD	3.2	3	3.5	3.5	3.5	3.5	3.5	3.5	3	3.5	3.5	3.5	2	2	3	3	3	9.5	24	
Petunia	Sheer Madness	BALL	3.1	3	3	3.5	3.5	4	3.5	4	3.5	3.5	3	3.5	3.5	2	2	2.5	2.5	3	13.5	24
Petunia	Hurrah Salmon	NOV	3.1	3	3	3.5	3.5	4	3.5	3.5	3	3	3.5	3.5	3.5	2	2	2.5	2.5	3.5	11.5	24
Petunia	PrimeTime Lavender	GOLD	3.1	3	3.5	4	4	4.5	4.5	4	3	2.5	2	2	2	2	2	3	3.5	3.5	17	24
Petunia	Aladdin Sky Blue	BG	3.1	3	3	3.5	4	4	3.5	3.5	3	3	3	2.5	2.5	2	2	3	3.5	3.5	9	24
Petunia	Celebrity Orchid Ice	BG	3.1	3.5	3.5	3.5	3	3	2.5	3	3	3	3.5	3.5	3.5	2.5	2.5	2.5	3	3.5	14.5	24
Petunia	Celebrity Raspberry Ice	BG	3.1	3	3	3	3.5	4	3.5	4	3.5	3	3	3	3	2	2	2.5	3	3.5	16	24
Petunia	Pink Storm	GOLD	3.1	3.5	3.5	4	4.5	4.5	3.5	3.5	3	3	3.5	3.5	3.5	1.5	1.5	1.5	2	2.5	11	24
Petunia	PrimeTime Scarlet	GOLD	3.1	3	3	3.5	4	4	3.5	3.5	3	3.5	3	3	3	2	2	2.5	2.5	3	14.5	24
Petunia	White Storm	GOLD	3.1	3	3.5	4	4	3.5	3	3	2.5	2.5	2	2	2	3	3.5	3.5	3.5	3.5	14	24
Petunia	Celebrity Scarlet	BG	3.0	3	3.5	4	4	4	3.5	3.5	3	3.5	2.5	2.5	2.5	2	2	2.5	2.5	3	16	24
Petunia	Carpet Sky Blue	PA	3.0	3	3	3	3.5	3.5	3.5	4	3	3	3	3	3	2	2	3	3	3	12	24
Petunia	Carpet Rose	PA	3.0	3	3	3	3.5	3.5	3	3.5	3	3	4	4	4	2	2	2	2.5	2.5	8.5	24
Petunia	Fantasy Salmon	GOLD	3.0	3	3	3	3.5	3.5	3.5	3.5	3	3.5	4	4	4	2	1	2	2.5	2.5	9	17
Petunia	Ultra Pink	GOLD	3.0	3	3	3	3.5	4	3.5	3.5	3	3	3	3	3	2	2	2.5	3	3.5	12	24
Petunia	Celebrity Rose Star	BG	3.0	3	3.5	4	4	4	3	3	2.5	2.5	2.5	3	3	2	2	2.5	3	3.5	14	24
Petunia	Dreams Neon Rose	PA	3.0	3	3.5	3.5	4	4	3	3	3	3	3	3	3	2	2	2.5	2.5	3	6.5	24
Petunia	Carpet Pink	PA	3.0	3	3	3	3.5	3.5	3	3	3	3	3	3	3	2	2	3	3.5	3.5	13.5	24
Petunia	Fantasy Red	GOLD	3.0	3	3	3	3.5	4	4	4	3.5	3.5	3	3	3	2	2	2	2	2.5	9	14
Petunia	PrimeTime Light Blue	GOLD	3.0	3	3	3	3.5	4	4	4	3	3	3	3	3	1.5	1.5	2.5	3	3	14	24
Petunia	Hurrah Blue	NOV	3.0	3	3.5	3.5	3.5	3.5	3	3	3	3	3	3	3	2	2	2.5	3	3	12	24
Petunia	Celebrity Red Morn	BG	3.0	3	3.5	3.5	3.5	4	3.5	4	3	3	2.5	2.5	2.5	1	2	2.5	3	3.5	17	24
Petunia	Celebrity White	BG	3.0	3	3	3.5	3.5	3.5	3.5	3.5	3	3	2.5	2.5	2.5	2.5	2.5	2.5	3	3	13.5	24
Petunia	Lavender Storm	GOLD	3.0	3	3.5	4	4.5	4.5	3.5	3.5	3	3.5	3	3	3	2	1.5	2	1.5	1.5	13.5	24

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																Height	Diameter		
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38			39	
Petunia	Aladdin Cherry	BG	2.9	3	3	3	3	3	3.5	3.5	3	3	3	3	3	2.5	2.5	2.5	2.5	3	10.5	24	
Petunia	Carmine Madness	BALL	2.9	3	3.5	3.5	3.5	3.5	3	3	3	3	4.5	4.5	4.5	1	1	1.5	1.5	2.5	12	24	
Petunia	Dreams Appleblossom	PA	2.9	3	3.5	3.5	3.5	3.5	3	3	3	3	3	3.5	3.5	2.5	2	2	2	2.5	9	24	
Petunia	Carpet Bright Red	PA	2.9	3	3.5	3.5	3.5	4	3.5	3.5	3	3	2.5	2.5	2.5	2	2	2.5	2.5	3	11	24	
Petunia	Aladdin Pink	BG	2.9	3	3.5	3.5	3.5	3.5	3	3	2.5	2.5	2	2	2	3	3	3	3	3.5	10.5	24	
Petunia	Celebrity Summer Ice	BG	2.9	3.5	3.5	3.5	4	4	3.5	3.5	3	3	3.5	3	3	2	1.5	1.5	1.5	2	12	24	
Petunia	Dreams Salmon	PA	2.9	3.5	3.5	3.5	4	4	3.5	3.5	3	2.5	2.5	2.5	2.5	2	2	2	2	3	10.5	24	
Petunia	Fantasy Crystal Light Salmon	GOLD	2.9	3	3	3	3.5	3.5	4	4	3.5	3.5	3.5	3	3	2	2	1.5	1.5	2	9	19	
Petunia	Carpet Blue	PA	2.9	3	3	3.5	3	3	3.5	4	3	3	3	3	3	2	2	2	2.5	2.5	12	24	
Petunia	Royal Madness	BALL	2.9	3	3.5	3.5	3.5	4	3.5	3.5	3	3	2.5	2	2	2	2	2	2.5	3	13	24	
Petunia	Fantasy Ivory	GOLD	2.9	3	3	3	3.5	3.5	4	4	3.5	3	3	3	3	1.5-	1.5	2	2	2	12	12	
Petunia	Eagle Blue	SAK	2.8	3	3	3	3	3.5	3.5	4	3	3	3	3	3	2	2	2	2	2	9	24	
Petunia	Aladdin Blue Ice	BG	2.8	3	3	3	3	3	3	4	3.5	3.5	3	3	3	1.5	1.5	2	2.5	2.5	10	24	
Petunia	Aladdin Pink Morn	BG	2.8	3.5	3.5	4	3.5	3	2.5	2.5	2.5	2.5	2	2	2	2.5	3	3	3	3	9.5	24	
Petunia	Aladdin Red	BG	2.8	3	3	3.5	3.5	3	3.5	3.5	3	3	3	3	3	2	2	2	2	2	12	24	
Petunia	Ultra Scarlet	GOLD	2.8	3	3	3.5	3.5	4	3.5	3.5	2.5	2.5	2.5	2.5	2.5	2	2	2.5	2.5	2.5	13	24	
Petunia	Heavenly Lavender	AAS	2.8	3	3.5	3.5	4	3.5	3	3	3	2.5	2	2	2	2	2	2.5	3	3	15	24	
Petunia	Aladdin Blue	BG	2.8	3	3.5	3.5	3	3	3.5	4	3	3	2.5	2	2	2	2	2.5	2.5	2.5	10	24	
Petunia	Aladdin White	BG	2.8	3	3	3.5	4	4	3	3	2.5	2.5	2	2	2	3	2.5	2.5	2.5	2.5	12	24	
Petunia	Celebrity Peach Ice	BG	2.8	3	3.5	3.5	4	3.5	3	3	2.5	2.5	2.5	2.5	2.5	2	2	2	2.5	3	10.5	24	
Petunia	Celebrity Salmon	BG	2.8	3	3.5	3.5	4	4	3.5	3.5	3	3	3	3	3	2	1.5	1.5	1	1.5	13.5	24	
Petunia	Dreams White	PA	2.8	3	3	3.5	4	4	3.5	3.5	3	2.5	2	2	2	2	2	2.5	2.5	2.5	14	24	
Petunia	Aladdin Cherry Morn Mix	BG	2.8	3	3	3	3.5	3.5	3	3	3	3	2.5	2.5	2.5	2	2	2.5	2.5	2.5	11.5	24	
Petunia	Dreams Midnight	PA	2.8	3	3.5	3.5	3.5	3.5	3	3	3	3	3.5	3	3	2	2	1.5	1.5	1.5	11	24	
Petunia	PrimeTime Mid-Blue	GOLD	2.8	3.5	3.5	3.5	3.5	3.5	3	3	2.5	2.5	2	2	2	2	2	2.5	3	3	14.5	24	
Petunia	Aladdin Peach Morn	BG	2.7	3	3	3	3	3.5	3	3.5	3	3	3	3	3	2	2	1.5	1.5	2.5	11	24	
Petunia	Aladdin Nautical Mix	BG	2.7	3	3	3	3	3	3	3	3	3	3	3	2.5	2.5	2	2	2	2.5	3	12	24

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Petunia	Celebrity Blue Ice	BG	2.7	3	3	3	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	1.5	1	1	1	1	11	24
Petunia	Dreams Red	PA	2.7	3	3	3	3.5	3.5	3	3	3	3	3	2.5	2.5	2	2	2	2	2	13	24
Petunia	Ultra Sky Blue	GOLD	2.7	3	3.5	3.5	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2	2	2.5	2.5	2.5	12	24
Petunia	Salmon Storm	GOLD	2.7	3	3.5	4	4	4	3.5	3	2	2	2.5	2.5	2.5	2	1	2	2	2.5	9	24
Petunia	Celebrity Blue	BG	2.7	3	3	3.5	3.5	3	3	3	3	3	2	2	2	2	2	2.5	2.5	2.5	10.5	24
Petunia	Celebrity Strawberry Ice	BG	2.7	3	3	3	3	3	3.5	3	2.5	2.5	2.5	2.5	2.5	2	2	2	2.5	3	11.5	24
Petunia	Carpet White	PA	2.7	3	3	3	3.5	4	3.5	3.5	3	3	2	2	2	2-	2-	2	2	2	15	24
Petunia	Aladdin Salmon	BG	2.6	3	3	3	3	3.5	3	3.5	3	3	3	2.5	2.5	2	2	1.5	1.5	2	12	24
Petunia	Celebrity Red	BG	2.6	3	3.5	3.5	4	4	3.5	4	3.5	3.5	3	3	3	5	5	5	5	1	13	24
Petunia	Celebrity Sky Blue	BG	2.6	3	3	3.5	3.5	3.5	3	2.5	2.5	2.5	2	2	2	2	2	2	2.5	3	11	24
Petunia	Prism Sunshine	PA	2.6	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3	2.5	2.5	2.5	5-	5	1.5	2	2.5	15	24
Petunia	Double Madness Sheer	BALL	2.6	3	3	3	3	3	2.5	2.5	2.5	2.5	2.5	3	3	2	2	2	2	2.5	11.5	24
Petunia	Hurrah Rose Star	NOV	2.6	3	3	3.5	3.5	3.5	3	3	2.5	2.5	2.5	2.5	2.5	2	2	1.5	1.5	1.5	12	24
Petunia	Eagle Red Star	SAK	2.6	3	3	3	3	3	3	3	2.5	2.5	3	3	3	2	2	1.5	1.5	1.5	10	24
Petunia	Aladdin Burgundy	BG	2.6	3	3	3	3	3.5	3.5	3	2.5	2.5	2	2	2	2	2	2	2	2.5	12	24
Petunia	Carpet Butter Cream	BG	2.4	3	3	3	3	3	3	3.5	3.5	3	3	3	3	5-	5-	1	1	1	15	24
Petunia	Double Cascade Burgundy	PA	2.4	3	3	3	2.5	3	2.5	2.5	2.5	2	2	2	2	2	2	2	2	2	11	24
Petunia	Double Cascade Plum Vein	PA	2.4	3	3	2.5	2.5	3	2.5	2.5	2	2	2.5	2	2	2	2	2.5	2	2	10	24
Petunia	Ultra White	GOLD	2.3	3	3	3	3	3	2.5	2.5	2.5	2.5	2	2	2	1.5-	1.5	1.5	1.5	1.5	13.5	24
Petunia	Celebrity Yellow	BG	2.2	3	3	3	3	3.5	4	4	3	3	2.5	2.5	2.5	5-	0	0	0	0	16	24
Phlox	Crystal Red w/White	DHN	1.1	3	2.5	2.5	2.5	2	2	2	1.5-	5-	0	0	0	0	0	0	0	0	5	6
Phlox	Crystal Purple w/White	DHN	1.1	3	2.5	2.5	2.5	2	2	2	1-	5	0	0	0	0	0	0	0	0	6	10
<i>Plectranthus amboinicus</i>	Variegatus	NCSU	3.6	3-	3-	3-	3-	3-	3-	3.5-	3.5-	3.5-	4-	4-	4-	4-	4-	4-	4-	4	12	23
<i>Plectranthus argentatus</i>	Silver	BWN	3.9	3-	3.5-	3.5-	3.5-	4-	4-	4-	4.5-	4-	4.5	4	4	4	4	4	4	4	24	24
Portulaca	Sundial Mango	BG	2.3	3	3	3	3.5	4	4	4	3.5	3	2	1.5	1	1	5	5	5	5	6	21
Portulaca	Sundial Pink	BG	2.2	3	3	3	3.5	4	4	4	3.5	3	2	1.5	1	5	5	5	5	5	5	18
Portulaca	96BP05	AAS	2.2	3	3	3	3.5	4	4	4	3.5	3	2	1.5	1	5	5	5	5	5	6	21

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Portulaca	Sundial Fuchsia	BG	2.2	3	3	3	3	3.5	4	4	3.5	3	2	1.5	1	1	.5	.5	.5	.5	6	19
Portulaca	Sundial White	BG	2.1	3	3	3	3.5	3.5	3.5	3.5	3	3	2	1.5	1	.5	.5	.5	0	0	6	19
Portulaca	Sundial Orange	BG	2.0	3	3	3	3	3.5	3.5	3.5	3	2.5	2	1.5	1	1	.5	.5	0	0	5	19
Portulaca	Sundial Gold	BG	2.0	3	3	3	3	3	3	3	2.5	2.5	2	2	1	.5	.5	.5	.5	.5	6	19
Rudbeckia	Indian Summer	AAS	2.7	3-	3-	3-	3.5	3.5	4	4	3.5	3	2.5	2.5	2.5	2	1.5	1.5	1.5	1.5	12	14
Rudbeckia	Sonora	BEN	2.1	3.5-	3.5-	3.5	4	4	3.5	3.5	3	2.5	1.5	1.5	1-	5-	5-	0	0	0	10	9
Salvia	Red Vista	PA	4.1	3	3.5	3.5	3.5	4.5	4.5-	4.5	5	5	4.5	4.5	4.5	4.5	4.5	3.5	3.5	3.5	9.5	14
Salvia	Signum	BG	3.9	3	3.5	3.5	3.5	4	4.5	5	5	5	4.5	4	4	4	4	3.5	3	2.5	13	23
Salvia	Salsa Salmon Bicolor	GOLD	3.8	3	3	3	3.5	4	4.5-	4.5	4.5	4	4	4	4	4	4	4	3.5	3	10	15
Salvia	Salsa Light Purple	GOLD	3.6	3	3.5	3.5	3.5	4	4-	4.5	4.5	4.5	4	4	3.5	3	3.5	3	2.5	2.5	10.5	14
Salvia	Salsa Rose	GOLD	3.6	3	3	3.5	3.5	4	4-	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	10	15
Salvia	Salsa White	GOLD	3.4	3	3	3	3.5	3.5	3.5-	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	10.5	15
Salvia	Salsa Purple	GOLD	3.3	3	3	3	3	3.5	3.5-	4	4	4	3.5	3.5	3.5	3.5	3	3	3	2.5	8.5	12
Salvia	Salsa Rose Bicolor	GOLD	3.3	3	3	3	3	3.5	4-	4	3.5	3.5	3.5	3.5	3	3.5	3.5	3	3	2.5	10	15.5
Salvia	Salsa Scarlet	GOLD	3.3	3	3	3	3	3.5	3.5-	3.5	3.5	4	4	4	3	3	3	3	3	3	11	15
Salvia	Salsa Burgundy	GOLD	3.3	3	3	3.5	3.5	4	4-	4.5	4.5	4.5	4	4	3.5	2.5	2.5	2	2	1	9	14
Salvia	Salsa Scarlet Bicolor	GOLD	3.3	3	3	3.5	3.5	4	4-	4	3.5	3.5	4	3.5	3	3	3	2.5	2.5	2	10	14
Salvia	Strata	AAS	3.2	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3	2.5	2.5	11	15
Salvia	Salsa Salmon	GOLD	3.1	3	3	3	3	3.5	3.5-	3.5	4	4	3.5	3	3	3	3	3	2.5	2	8	13
Setcreasea		NCSU	3.1	3-	3-	3-	3-	3-	3-	3.5	3.5	3.5-	3-	3-	3	3	3	3	3	3	6	24
Sunflower	96F10	AAS	1.1	3-	3	3	2	2	1.5	1.5	1.5	5-	5	0	0	0	0	0	0	0	32	14.5
Sunflower	Del Sol	PA	0.6	2.5	2	1.5	1-	1-	5-	5-	5-	5-	0	0	0	0	0	0	0	0	24	5.5
Sweet Potato	Sulfur	NCSU	4.6	3-	3-	3.5-	4-	4.5-	4.5-	5-	5-	5-	5-	5-	5-	5-	5-	5-	5-	5-	15	24
Sweet Potato	Pink Frost	NCSU	4.1	3-	3-	3-	3-	3.5-	3.5-	4-	4-	4.5-	5-	5-	5-	4.5-	4.5-	4.5-	4.5-	4.5-	9	24
Sweet Potato	Blackie	NCSU	3.8	3-	3.5-	3.5-	3.5-	3.5-	3.5-	4-	4-	4-	4.5-	4.5-	4-	4-	4-	4-	4-	3.5-	14.5	24
Tithonia	Fiesta del Sol	AAS	2.7	3-	3-	3.5-	3.5	4	4	4	3	2.5	2.5	2	2	2	2	2	1.5	1.5	23.5	23
Trachelium	Passion in Violet	DHN	3.4	3-	3-	3-	3-	3-	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	11	10

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Tritoma	96F13	AAS	2.1	2.5-	2-	2-	2-	2-	2-	2-	2	2	2.5-	2.5-	2-	2-	2-	2-	2.5-	13	22	
Tuberous Begonia	Panorama Scarlet	BEN	3.7	3	3.5	3.5	3.5	3.5	4	4	4	4	3.5	3.5	3.5	4	4	4	4	10	15	
Tuberous Begonia	Charisma Pink	BEN	3.3	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3	3	3.5	3.5	3.5	3.5	9.5	12	
Tuberous Begonia	96F02	AAS	2.0	2-	2-	2-	2-	2-	2-	2-	2-	2	2	2	2	2	2	2	2	6	8	
Verbascum	Sunset Shades	PA	2.9	2.5-	2.5-	3-	3-	3.5	3.5	3.5	3.5	3	3-	3-	3	3-	2.5-	2-	2	7	17	
Verbena	Imagination	AAS	3.6	3	3	3.5	3.5	3.5	3.5	3.5-	3.5	4	4.5	4	4	4	3.5	3.5	3	3	6.5	24
Verbena	Quartz Scarlet	PA	3.4	3	3	3.5	3.5	3.5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3	3	3	2.5	9	24
Verbena	Heirloom Light Blue	NOV	3.3	3	3	3.5	3.5	3.5	4	4	3.5	3.5	4	4	3	3	2.5	2.5	3	2.5	7	21
Verbena	Quartz Mix	PA	3.3	3	3	3.5	3.5	3.5	4	4	4	4	3.5	3.5	3.5	3.5	2.5	2.5	2.5	1.5	7.5	21
Verbena	97BP08	AAS	2.9	3-	3-	3	3	3	3	3	3	3	3	3	3	2.5	2.5	2.5	2	6	15	
Verbena	Romance Violet w/Eye	AAS	2.9	3	3	3	3.5	3.5	4	4	3.5	3	3	2.5	2.5	2.5	2	2	2	1.5	5	15
Verbena	Novalis Deep Blue w/Eye	AAS	2.9	3	3	3	3	3	3.5	3.5	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2	8	14.5
Verbena	Heirloom Appleblossom	NOV	2.8	3-	3-	3	3	3	3.5	3.5	3	3	3	3	2.5	2.5	2.5	2.5	2	2	3.5	15.5
Vinca	Rose Cooler	PA	3.8	3-	3	3	3	3.5	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4	3	3	3	11.5	21
Vinca	Blue Pearl	PA	3.7	3	3	3.5	3.5	4	4.5	4.5	4	4.5	4.5	4.5	4	4	3.5	3	2.5	2.5	12	22
Vinca	Orchid Cooler	PA	3.6	3-	3-	3.5	3.5	3.5	4	4	4	4.5	4.5	4.5	4.5	4	3.5	3	2.5	2	11	22
Vinca	Blush Cooler	PA	3.6	3-	3	3.5	3.5	4	4.5	5	5	5	4	4	4	3.5	3	2.5	2	2	12	22
Vinca	Icy Pink Cooler	PA	3.6	3	3	3.5	3.5	4	4.5	5	5	4.5	4	3	3	3	3	3	3	3	10.5	24
Vinca	Raspberry Red Cooler	PA	3.6	3	3	3	3.5	3.5	4	4	3.5	3.5	3.5	4	4	4	4	3.5	3.5	3.5	12	19
Vinca	97BP09	AAS	3.5	3	3	3.5	3.5	3.5	3.5	3.5	3.5	4	4.5	4	3.5	3.5	3.5	3.5	3.5	3	11	24
Vinca	Grape Cooler	PA	3.5	3	3	3.5	3.5	4	4	4	4.5	4.5	4	4	4	3.5	3	2.5	2.5	2	10.5	23
Vinca	Heat Wave Grape	BG	3.5	3	3	3.5	3.5	4	4.5	4.5	4.5	4	4.5	4	3	3	3	2.5	2.5	2	8	24
Vinca	Pacifica Lilac	AAS	3.3	3	3	3	3.5	3.5	3.5	3.5	4	4.5	4	4	3.5	3	3	2.5	2.5	2.5	10.5	21
Vinca	Pink Cooler	PA	3.3	3	3	3	3.5	3.5	4	4.5	4.5	4	3.5	3.5	3	3	2.5	2.5	2.5	2.5	12	22
Vinca	Peppermint Impr.	PA	3.3	3	3	3	3.5	3.5	3.5	3.5	4	4	4	4	4	3.5	3	2	2	2	12.5	24
Vinca	Heat Wave Pink	BG	3.2	3	3	3.5	3.5	3.5	3.5	4	4	4	4	4	3.5	3	2.5	2	2	2	13	21
Vinca	Heat Wave Peppermint	BG	3.2	3	3	3.5	3.5	3.5	3.5	4	4	4.5	3.5	3	3	3	2.5	2.5	2.5	2.5	12	21

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24

Species	Cultivar	Source	Seasonal Average	Weekly ratings (week of the year) "-" indicates no flowering																	Height	Diameter
				23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Vinca	Strawberry Cooler	PA	3.2	3	3	3	3	3	3.5	4	4.5	4	4	3.5	3	3	2.5	2.5	2.5	2.5	10	20
Vinca	Heat Wave Orchid	BG	3.0	3	3	3.5	3	3.5	3.5	4	4	4	4.5	3.5	3	2.5	2	1.5	1.5	1.5	12	22
Vinca	Heat Wave Mix	BG	3.0	3	3	3	3.5	3.5	3.5	4	4	3.5	3.5	3	3	2.5	2.5	2	1.5	1.5	12	21
Vinca	Heat Wave White	BG	2.7	3	3	3	3	3	3	3.5	4	3.5	4	3	2.5	2	1.5	1.5	1.5	1.5	11	17
Zinnia	Profusion Orange	AAS	4.5	3	3.5	3.5	4	4.5	4.5	5	5	5	5	5	5	5	5	4.5	4.5	4	12	23
Zinnia	Profusion Cherry	AAS	3.7	3	3	3.5	3.5	4	4	4.5	4	4	4.5	4.5	4.5	4	4	3	2.5	2.5	13	21

Week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Date	6/4	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24