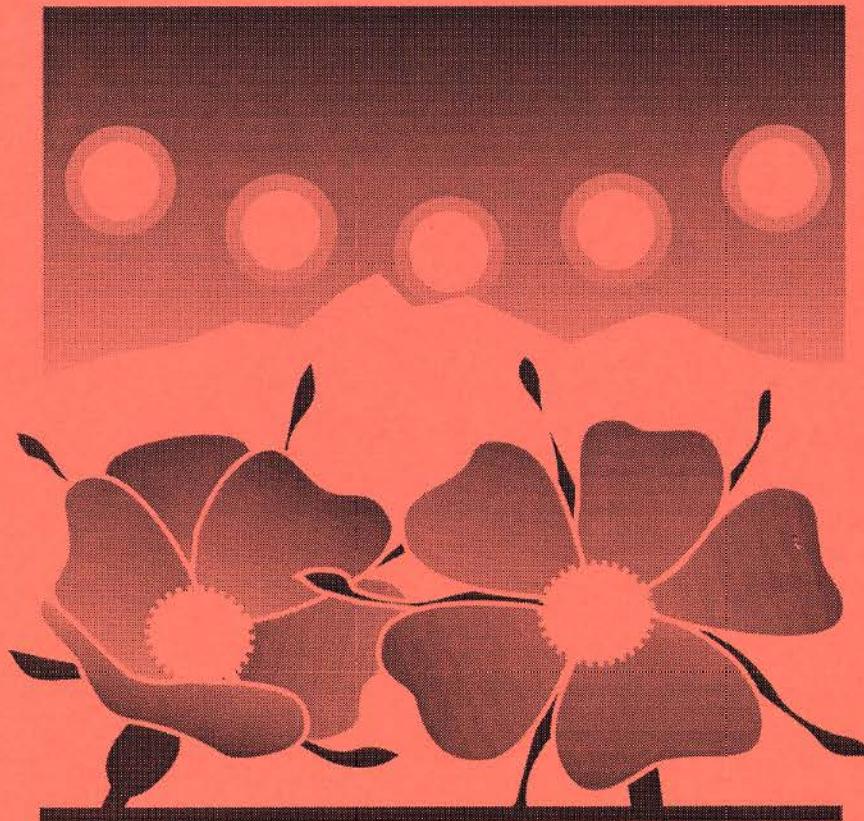


Annual Flowering Plant Evaluations 2002



**GEORGESON
BOTANICAL GARDEN**

by

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Introduction

Each year approximately 300 annual flowering plants are included in the tests at the Georgeson Botanical Garden. Cultivars are tested for three years, not necessarily consecutively. Fin.1 three-year average performance is outlined in Table 4.

The annual flower trials were planted from 29 May through 6 June, 2002 in the Perennial Landscape and All American Selections Display Garden of the Georgeson Botanical Garden (64° 51'N, 147° 52'W). Fairbanks silt loam soil was fertilized with 10-20-20S (4 lbs per 100 sq. ft., 195 g per sq meter) on 29 May. Flowers were grown as seedling transplants and were hardened off outdoors for one week prior to transplanting.

All cultivars were planted according to recommended commercial spacing guide lines in unreplicated beds. Plant numbers varied according to plot size. The granular herbicide Preen® (Trifluralin), was applied on 10 June to all plots. Plots were irrigated as needed throughout the summer. A fungicide treatment (Topsin M®, Thiophanate-methyl) was applied on 21 June and 16 July to inhibit the growth of *Sclerotinia* cottony rot.

Plot evaluations began immediately after planting and continued weekly through September. They consisted of flowering dates and occurrence of disease, insect pests, seed pods, off-type plants, and other deformities. From 25 July to 31 Aug., each cultivar was measured for plant height and flower size, rated for performance of flowers and foliage, and evaluated for fragrance and potential use

as cut flowers or in dried arrangements. Frost tolerance was noted one week after the first frost on 2 September.

Weather data were compiled annually from a U.S. Weather Service station, elevation 475ft (145m), located approximately 350ft (107m) west of the Garden. The last spring frost was 12 May (29°F, -1.7°C). (Table 1). Thaw degree day accumulation was below the previous ten-year average of 3278 degree days. The frost free season was five days longer than the previous ten year average.

The weather statistics describe a fairly typical growing season for Fairbanks, but the overall growth of the Garden was nothing to brag about. In June, we can usually expect temperatures to soar into the 80s or 90s (F), but high temperatures only reached into the 70s. Many farms and gardens throughout the Tanana Valley were injured severely by a frost on 21 June, and record low temperatures were recorded on 4 July. The Garden did not experience a frost, but the cold temperatures were sufficient to delay growth on many annual flowers. By the beginning of July, most of the early-season annual flowers have filled in the beds and are in full bloom. This season, many plants looked like they had just been transplanted at the end of June. Most petunias still sported only one bloom on a tiny clump of foliage, and heat-loving plants such as portulaca were a total failure. The average weather data does not show major changes from seasonal averages, but temperatures were just enough cooler in June to make a big difference in early-season growth. Most plants recovered sufficiently for a more normal growing season through September.

Table 1. Previous ten year weather data plus 2002

Season	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Average temperature:											
May	40.6	51.9	52.0	52.3	44.1	47.8	49	46	44	45	50.4
June	59.1	60.5	57.0	58.5	57.3	61.0	57.8	61	59	56.5	57.6
July	63.0	64.5	62.0	61.9	61.9	63.8	62.2	61	59	60.5	61.3
Aug.	55.9	55.5	51.0	55.6	52.1	57.1	52.4	57.5	51.5	57	53.9
Sept.	31.4	42.5	43.0	50.6	41.2	49.6	45.8	45	41	48.5	46.6
Maximum temperature	90	91	89	85	82	87	87	91	83	95	85
Growing season:											
Last frost	June 7	May 1	May 6	May 22	June 5	May 25	May 13	May 29	May 15	May 13	May 12
First frost	Sep 5	Sept. 1	Aug 23	Sep 4	Aug 27	Aug 19	Sept. 13	Sep 11	Sep 16	Sep 24	Sep 2
Frost free days	90	123	109	105	83	86	123	105	124	134	113
Thaw degree days	2568.0	3547.5	3476.3	3676.5	2810.5	3655.5	3277.5	3383	2943	3439	2980.0
Rainfall	8.78	6.67	7.21	10.15	8.73	5.86	9.87	8.66	8.55	5.80	9.35
Previous winter season:											
Minimum temperature	-35	-52	-37	-48	-48	-54	-48	-54	-50	-27	-36.3
Snowfall	103.8	131.7	36.3	69	47.8	8.4	30.6	31.6	62.2	39.9	39.7

Table 2. Weather Data for 2000 - 2002

	May			June			July			August			September		
	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
Average daily max. °F	55	55	64	73	64	69	69	70	73	60	67	64	50	61	57
Monthly high temp. °F	64	69	85	83	95	77	81	82	83	79	77	85	56	68	67
Average daily min. °F	33	35	37	45	49	46	48	51	50	43	47	44	32	36	36
Monthly low temp. °F	21	20	18	39	41	33	37	40	36	35	40	34	16	29	28
Rainfall (inches)	0.81	0.03	0.48	0.92	0.41	1.30	2.03	3.35	2.71	3.33	1.70	3.71	1.46	0.31	1.15

Georgeson Botanical Garden Map- 2002

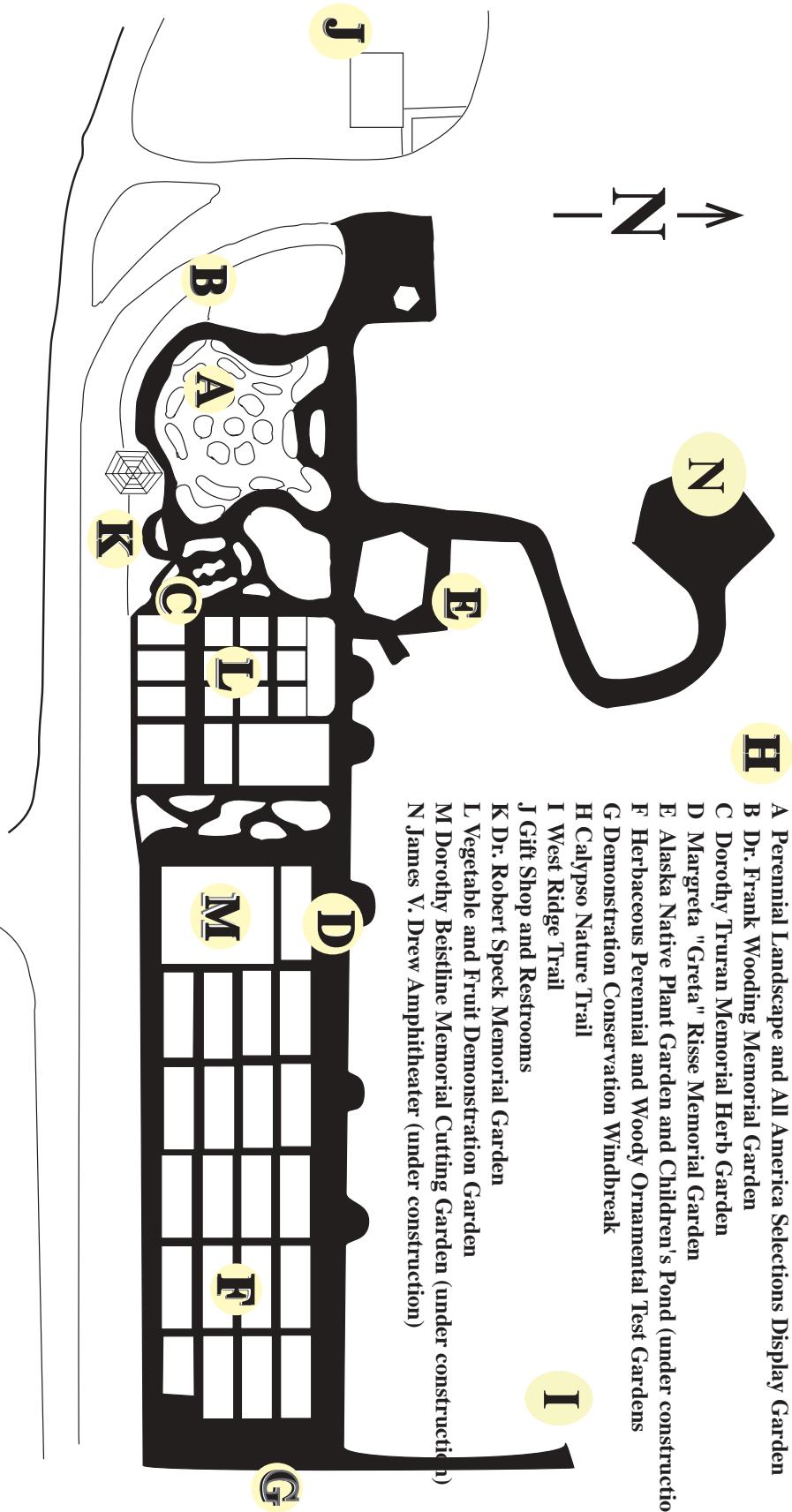


Table 3. Results of tested cultivars for 2002.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y			Frost tolerance	
			min	max	min	max	Jun	Jul	Aug		
African Lion's Tail		orange	48	60	3	3½				+	+
Agastache	Apricot Sprite	light orange	10½	24	2¼x1	9x3	✿	✿	✿	-	-
Ageratum	Golden Jubilee	purple flowers, yellow foliage	14½	20	¼x¼	3½x¾	✿	✿	✿	+	+
Ageratum	Blue Bouquet	lavender blue	10	24	¼	2	✿	✿	✿	-	-
Ageratum	Blue Horizon	lavender	9½	19½	¼	2	✿	✿	✿	-	-
Ageratum	Hawaii Shell Pink	pink, rose	3	5½	¼	1½	✿	✿	✿	-	-
Ageratum	Red Sea	reddish purple buds opening to lavender	9	17	¼	1½	✿	✿	✿	-	-
Ageratum	Southern Cross	light lavender blue	9	14	¼	¼	✿	✿	✿	-	-
Ageratum	Weisser Schmitt	white	13	21	½	2	✿	✿	✿	-	-
Ageratum (Lonas)	Goldrush	gold	4	8	¼	1	✿	✿	✿	-	-
Alyssum	Aphrodite Mix	purple, rosy purple, cream, white	½	4	¼	¼	✿	✿	✿	-	-
Alyssum	Carpet of Snow	white	8	19	1x1	2¾x1	✿	✿	✿	+	+
Asclepias	Wonderland Lavender	lavender	1	4	¼	1	✿	✿	✿	+	+
Aster	Ice Ballet	cream	22	25	¼	¼	✿	✿	✿	+	+
Aster	Lilliput Blue Moon	2-toned purple/lavender	10	20	1	2	✿	✿	✿	-	-
Aster	Pompon Splendid	rose, purple, purple with white centers	4	15	1½	2½	✿	✿	✿	-	-
Aster, Annual	Mixed	pink, purple with yellow centers	7	23	2	3½	✿	✿	✿	-	-
Aster, Annual	Single California Giant Finest Mixed	pink, purple with yellow centers	5	17	3	4½	✿	✿	✿	-	-
Aster, Annual	Tiger Paws Mixed	red, purple, burgundy, pink, yellow, white	13	24	2	3	✿	✿	✿	+	+
Aster, Annual Garden	Astoria Deep Blue	lavender with yellow centers	12	25	2½	3½	✿	✿	✿	-	-
Bidens	Golden Goddess	yellow with yellow centers	8½	30	¾	1¼	✿	✿	✿	+	-
Blue woodruff		blue	5	13	¼	1	✿	✿	✿	-	-
Bupleurum	Green Gold	golden yellow	11	26	¾	1¾	✿	✿	✿	-	-
Calendula	Buttermilk Baby	yellow with brown centers	5	17½	1	2¼	✿	✿	✿	+	+

^w if the plant is uniform in height, the height is recorded under max only.^x if flower size is uniform, size occurs in max only; sizes with an x like 12x3 indicates a spike flower type with the height x width.^y ♦ indicates just starting to bloom, ♦ indicates 50% bloom, and ♦ indicates full bloom.

		Plant ratings ^z			Recommended for				Comments
quantity	Flower quality	Foliage	Overall	Fragrance	Cutting	Drying			
3	3	3	3	n	y	y		Very tall plant for background plantings, interesting monarda-like blooms in tight clusters around the stem, late but nice	
3	2	2	2	n	y			Not the most showy Agastache but interesting color, flowers are tiny, needs mass planting and close spacing for show, Floroselect Quality Mark Selections flower award 2003	
3	3	2	3	y	y			Tall, erect stems for cutting, small flower clusters, holds up well in cold wet weather, large bushy plants	
3	3	3	3	n	y	y		Uneven flower height, excellent color, attracts insects, great mounds of color	
4	4	4	4	y	y	y		Interesting bicolor appearance, buds are dark rose pink, flowers fade to white, lots of brown centers after cold wet weather, needs close spacing for best carpet effect	
4	3	3	3	sl	y	y		Outstanding color contrast, new buds are a dark reddish purple, color becomes lavender in full bloom, variable flower height	
4	4	4	4	sl	y	y		Compact plants, flowers are interesting two-tone color as they mature, forms brown centers in rainy weather, uneven plant height	5
4	3	3	3	n	y	y		Variable height, nice contrast of white flowers against green foliage, excellent bushy growth, covered with flowers, some brown flowers in cold wet weather	
3	3	3	3	n	n			Very attractive jewel-like flowers, looks like tiny gold pin cushions, sparse in June, needs close spacing for best cover	
1	1	1	1	y	n	n		Very poor establishment in this cold wet summer, few plants survived and they grew poorly, better in other years, the purple colored plants are more vigorous than other colors	
4	3	3	3	y	n			Uneven plant height late in season, looks ragged, excellent fragrance, holds up well in cold wet weather	
4	4	4	4	y	n			Very attractive color, spreads and fills in well, nice uniform carpet, dwarf and very uniform habit	
1	1	2	1	y				Just beginning to bloom 1 Sept, tall unbranching upright stems	
3	3	3	3	n	y	y		Interesting 2-toned petals, abundant clusters of purple flowers, stems length great for cutting	
3	3	3	3	n	y			Blooms late but worth the wait, outstanding tight flower heads look like mums, holds up well in cold wet weather	
3	3	3	3	n	y			Nice daisy-like flowers excellent for cutting, petals become curled and splotchy following cold rains, excellent flower color contrast	
3	3	3	3	n	y			Excellent full blooms, highly recommended for cutting, big poofs of petals opening to yellow centers, needs deadheading after cold wet weather, interspecies cross between spider asters and giant Creo types	
3	3	3	3	n	y			Great daisy-like flowers with interesting color contrast in flowers, excellent cut flower	
3	3	2	3	n	y			Does not hold up well in cold weather	
4	4	4	4	y	y			Holds up well in cold wet weather, nice full open airy plant, great for fillers or background, billow of yellow color, will self sow in the garden	
3	3	3	3	n	n			Tiny clusters cover the thin stems early in season, finished early, best planted as early season color that is filled in with something else later in season.	
4	3	3	3	n	y			Nice early, unusual golden color, bushy plant, goes to seed by 1 Sept	
3	3	3	3	sl	n			Compact plant covered with blooms, needs deadheading for best show, shortest calendula this season, nice color	

^z 0=dead; 1=poor, diseased, rotten or not showy; 2=fair, other cultivars of its kind have been better; 3=good, worth growing, nice ornamental; 4=outstanding quality, the best of its kind grown in the garden.

Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y			Frost tolerance	
			min	max	min	max	Jun	Jul	Aug	Sep	foliage
Calendula	Calypso Orange/ Black Center	yellow-orange with dark brown centers	16	10	1½	2½	✿	✿	✿	✿	y
Calendula	Flashback	top of petals orange, bottoms, dark red	8	22	1	2	✿	✿	✿	✿	+
Calendula	Geisha Girl	orange with bronze tips, dark red centers	16	27	1¼	3	✿	✿	✿	✿	+
Calendula	Pacific Beauty Mixed	orange, yellow with dark red centers	11	25	1	3	✿	✿	✿	✿	+
California Poppy	Champagne & Roses	dark rose outside, rose, light pink, creamy yellow inside, some all yellow	7	34½	¾	2¾	✿	✿	✿	✿	-
California Poppy	Thai Silk Lemon Bush	mix of lemon and creamy yellow	6	12	1¼	2	✿	✿	✿	✿	+
Candytuft	Brilliant Mixture	white, rose, pink	4	10	½	1½	✿	✿	✿	✿	-
Candytuft	Flash Mixed	pink, white, rose	scarlet	48	1	1½	✿	✿	✿	✿	-
Cardinal Climber	Can Can Scarlet	scarlet	10	16	1½	2¼	✿	✿	✿	✿	+
Carnation	Clove Drops Midget Mix	red, yellow, pink, white purple, pink, white, rose	6	8	2	2½	✿	✿	✿	✿	+
Centaurea	The Bride	white	3	8	1	1½	✿	✿	✿	✿	+
Centaurea	Bouquet Gold	-	-	-	-	-	✿	✿	✿	✿	-
Chinese Vine	Mystery Rose	rosy pink	90	96	1	1	✿	✿	✿	✿	-
Forget-me-not	Polar Star	white and yellow with brown centers	12	27	2	4	✿	✿	✿	✿	+
Chrysanthemum multicaule	Yellow Buttons	yellow	4	17	¼	1	✿	✿	✿	✿	-
Cleome	Queen Mix	rose, pink, burgundy, white	36	46	1	1½	✿	✿	✿	✿	-
Cleome	Solo	white petals, red sepals	12	18	¼	1	✿	✿	✿	✿	-
Cleome	Sparkler Blush Coneflower, Branched	pink, white, rose yellow	27	29	5x3½ 2½	6x4 3	✿	✿	✿	✿	-
Coreopsis	Mardi Gras	gold with red centers	6	15	1½	1	✿	✿	✿	✿	-
Coreopsis	Seashells	gold with red centers	6	19	1	1½	✿	✿	✿	✿	-

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quantity	quality	Flower	Plant ratings ^z				Comments
			Foliage	Overall	Fragrance	Cutting	
3	2	2	2	y	y		Needs deadheading, small flowers, not the best calendula but colorful
3	3	3	3	n	y	y	Lots of small blooms all season, interesting contrast between top and bottom of petals, needs deadheading for full color, will self sow in the garden
3	3	3	3	n	y		Very nice contrast of orange petals with dark brown centers, abundant blooms, needs deadheading
3	3	3	3	n	y		Reliable, nice color, abundant blooms, needs deadheading
4	4	4	4	n	y		Gorgeous color, fluted petals, closes up in cold weather, many double flowers, floppy stems but fills in well
3	3	3	3	n	y		Mostly double flowers, floppy stems, outstanding contrast with bluegreen foliage
2	2	2	2	n	n	n	Needs serious deadheading to keep blooms all season, not deadheaded this year so plant died out quickly, seed pods are not attractive
2	2	2	2	n	n		Needs significant deadheading early in season to keep blooms, not deadheaded this year so poor performance, nice color mix early
1	1	2	1	n	n		Interesting tiny morning glory-like blooms early in season, not a vigorous climber, few blooms late in season, not showy
3	3	3	3	y	y		Late but very nice double blooms, strong upright stems, brilliant color, grey-green foliage. All America Selections flower award 2003
1	1	1	1	y	n		Poor establishment in cold weather, spread poorly, few flowers, probably better in containers
2	3	2	2	sl	n		Declines in August, early flowers are abundant and colorful but does not recover well from deadheading
2	2	2	2	y	y		Not the best Centaurea, nice flowers but overall effect is ragged and floppy, not showy, needs deadheading, flowers are sparse
1	1	1	1				Died shortly after planting in cold wet season
3	3	4	3	n	n		Outstanding vine, grows as fast as scarlet runner bean and has beautiful dark green dissected foliage, feathery tendrils, very ornamental
4	4	4	4	n	y		One of the best of its type tested in the garden, strong upright stems loaded with flowers, wonderful contrast between flowers and foliage, attracts bees
3	3	3	3	y	y		Large attractive flowers on rangy floppy stems, definitely needs lots of space to spread out
4	4	4	4	n	y		Outstanding mounds of electric yellow color, well worth growing as edging
3	3	3	3	n	y		Excellent mid to late season color, great color mix
3	1	2	1	n	n		Unattractive flowers, tiny and not showy
2	2	2	2	sl	y		Shorter than most cleomes, poor germination, late to bloom, not showy
1	1	3	1	n	y		Big bushy plant, few flowers, not at all showy, great if you want a green bush
4	3	3	3	y	y		Clouds of color, nice filler or in mass plantings, no maintenance needed
3	3	3	3	sl	y		Big bushy plant covered with tiny flowers, great as filler

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Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y			Frost tolerance		
			min	max	min	max	Jun	Jul	Aug	Sep	foliage	flowers
Cosmos	Campus Apricot	pale pink	20	24	2	2½	✿	✿	✿	✿	-	-
Cosmos	Candy Stripe	pink with magenta edges, yellow centers	22	29	1	3	✿	✿	✿	✿	-	-
Cosmos	Daydream	light pink	20	26	2	2½	✿	✿	✿	✿	-	-
Cosmos	Dazzler	magenta with yellow centers	24	25	1½	3½	✿	✿	✿	✿	-	-
Cosmos	Early Summer Mix	magenta, pink	18	30	1½	4	✿	✿	✿	✿	-	-
Cosmos	Early Vega	pink, white, magenta	18	26	2½	4	✿	✿	✿	✿	-	-
Cosmos	Fairy Mix	pink, white, magenta	16	22	2	4	✿	✿	✿	✿	-	-
Cosmos	Gazebo Mixed	pink, white, magenta	18	24	1½	3½	✿	✿	✿	✿	-	-
Cosmos	Gazebo White	white	16	25	1½	4½	✿	✿	✿	✿	-	-
Cosmos	Picotee	pink with magenta edges, yellow centers	27	31	2	3	✿	✿	✿	✿	-	-
Cosmos	Pied Piper Red	carmine	20	27	2	3	✿	✿	✿	✿	-	-
Cosmos	Psyche Mix	magenta, pink	26	33	2	4½	✿	✿	✿	✿	-	-
Cosmos	Purity	white	30	36	2	2½	✿	✿	✿	✿	-	-
Cosmos	Sea Shells	white, pink, magenta	19	23	2	3	✿	✿	✿	✿	-	-
Cosmos	Sensation Mix	pink, white, rose, carmine	25	28	2	3½	✿	✿	✿	✿	-	-
Cosmos	Sensation Radiance	pink with magenta near center, yellow centers	24	30	2	3	✿	✿	✿	✿	-	-
Cosmos	Sensations Mix	rose, white, pink, magenta with yellow centers	25	28	2	3½	✿	✿	✿	✿	-	-
Cosmos	Sonata Mix	pink, some double	20	21	1½	2	✿	✿	✿	✿	-	-
Cosmos	Sonata Pink Blush	pink with magenta near center, yellow centers	19	22	2	4	✿	✿	✿	✿	-	-
Cosmos	Sweet Dreams	light pink with deep rose centers	18	24	2	3	✿	✿	✿	✿	-	-
Cosmos	Unique Mix	magenta, pink	24	35	2	4	✿	✿	✿	✿	-	-
Cosmos	Versailles Mixed Colors	white, pink, rose, carmine	15	28½	2	3½	✿	✿	✿	✿	-	-
Cosmos	Yellow Garden	yellow, white, pink	30	48	1½	3	✿	✿	✿	✿	-	-
Dahlberg Daisy	Bishop's Children	gold with gold centers red, dark orange, yellow, deep rose with yellow centers	4½	8½	¼	¾	✿	✿	✿	✿	-	-
Dahlia	Figaro	yellow, rose, white, lt orange, pink	9	14	1½	3½	✿	✿	✿	✿	-	-
Dahlia	Harlequin Mixed Colors	white, yellow, red, rose, purple	4	17	2	3½	✿	✿	✿	✿	-	-
Dahlia	Symphony Silk	red, cream, yellow with yellow centers	30	36	2	2½	✿	✿	✿	✿	-	-
Dianthus	Amazon Neon	red, purplish pink mix	14	20	½	1	✿	✿	✿	✿	+	+

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	Flower quantity	Foliage quality	Overall	Plant ratings ^z			Comments
				Fragrance	Cutting	Drying	
2	3	3	3	n	y	n	Interesting striped petals, not as many blooms as other cosmos
2	3	3	3	n	y	n	Large bush covered with flowers nearly all summer
3	3	3	3	n	y	n	Needs deadheading late in season, tolerates cold wet weather, abundant blooms, great filler
3	3	3	3	n	y	n	Interesting and attractive flowers, smaller flowers than most
4	4	4	4	n	y	n	Weak stems, floppy, interesting tubular flowers, tolerates cold wet weather, benefits from dark photo period pretreatment in greenhouse
3	3	3	3	n	y	n	tubular petals, not as floriferous as other cosmos, smaller flowers but interesting double petals
2	3	3	2	n	y		Very nice mix of colors, reliable large flowers, benefits from dark treatment
-	3	3	3	n	y		Excellent flowers and foliage tall stems for cuttings, tolerates cold wet weather, needs deadheading, flowers earlier with dark photoperiod treatment
3	3	3	3	n	y		Very nice mounds of flowers and foliage, attractive color mix
3	3	3	3	n	y		Beautiful flowers with two-toned petals, weak stems, not as upright as other cosmos
3	3	3	3	n	y		Double petals, not as vigorous as other cosmos, nice small flowers
3	3	3	3	n	y		Very nice mix of colors, late to bloom without dark pretreatment, best mixed cosmos
1	1	3	1	sl	y		Will now flower without dark pretreatment in greenhouse, huge mounds of foliage and just a few blooms even with pretreatment
4	4	4	4	sl	n		Clouds of yellow
1	1	1	1	y	y	n	Burgundy foliage, did not bloom this season until very late, poor showing in cold wet summer
3	2	2	2	y			Good mix of colors, abundant flowers but many blooms hidden by foliage
3	3	3	3	n	y		Many two-tone solid and bicolor flowers, flowers seem to sit on top of mounds of foliage
1	1	3	1	y			Very late to bloom, not much show this season
4	4	4	4	sl	y	y	Outstanding huge balls of color, unusual mix of flower colors, vibrant, All America Selections flower award 2003, definitely worth trying

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Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y			Frost tolerance		
			min	max	min	max	Jun	Jul	Aug	Sep	foliage flowers	
Dianthus	Bouquet Purple	purplish pink	11	14	1	1 1/4	*	✿	✿	✿	+	+
Dianthus	First Love	white with rose markings, light pink, rose	4	13	1 1/2	1	*	✿	✿	✿	+	+
Dianthus	Floral Lace Salmon	salmon pink with white edges	2	9	1 1/8	1 3/4	*	✿	✿	✿	-	-
Drumstick Flower	Goldstick	gold	17	36	3/4	1 1/4	*	✿	✿	✿	+	+
English Daisy	Lipstick	white with rosy red tips and yellow centers	3	10	3/4	2 1/4	*	✿	✿	✿	+	+
Everlasting	Ebony 'N Ivory	white with black and yellow centers	5	19	1	2	*	✿	✿	✿	+	+
Everlasting	Ebony Rouge	pink, rose, white with yellow centers	5	16	1/2	2	*	✿	✿	✿	y	y
Gaillardia	Sundance Bicolor	yellow and red	8	17 1/2	1	2 1/2	*	✿	✿	✿	-	-
Gazania	Daybreak Mix	yellow, orange, cream with orange or yellow centers	8	13	1 1/4	3 1/4	*	✿	✿	✿	+	-
Gazania	Daybreak Orange	creamy white	6	9	2 1/4	3 1/2	*	✿	✿	✿	+	+
Gazania	Sunshine Cream	cream, yellow, pink, orange, red	8	12	2 1/2	3	*	✿	✿	✿	+	+
Gazania	Tiger Stripe Mix	cream with rose stripes/yellow with red stripes	8	10	2	3	*	✿	✿	✿	-	-
Gazania	Tiger Stripe Mix	orange, cream, yellow, gold with mahogany stripes	5	13	2 1/2	3	*	✿	✿	✿	+	+
Geranium	Black Magic Rose	pink	9	14	2 1/4	3 1/2	*	✿	✿	✿	+	+
Geranium	Maverick Violet	violet rose with dark rose markings	6 1/2	12	2	4 1/2	*	✿	✿	✿	+	+
Geranium	Orange Appeal	orange	8	13	1 1/2	3 1/2	*	✿	✿	✿	+	+
Godetia	Amethyst Glow	purplish pink	14	25	1	1 3/4	*	✿	✿	✿	+	+
Godetia	Thoroughly Modern Millie	pink with rose centers, rose with pink centers, white with pink centers, peach	2	19	1 1/2	2 1/2	*	✿	✿	✿	-	-
Godetia, Monterey	Lady in Blue	rose	8	16	3/4	2	*	✿	✿	✿	-	-
Gomphrena	Gnome Mixture	-	-	-	-	-						
Heteropappus	Blue Knoll	blue	-	-	-	-	*	+	+	-	-	
Hyacinth bean												
Impatiens, Garden	Dazzler® Pink Deep	pink with rose markings	48	70	3/4	1	*	✿	✿	✿	-	-
Impatiens, Garden	Dazzler Pink Improved	pink with rose centers	3	5	1 1/4	1 1/4	*	✿	✿	✿	-	-

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	Flower quantity	Foliage quality	Overall	Plant ratings ^z			Comments
				Fragrance	Cutting	Drying	
3	3	3	3	n	+	y	Bright vibrant color, outstanding even in rainy cold weather, excellent stem length for cutting
2	2	2	2	y	y	y	Nice tall plant for cutting, variable flower height, beautiful mix of colors, did not fill in well this cold season, better dianthus available
2	2	2	2	n	n	n	Some plants with solid colors, most with white or faded pink edges, needs deadheading, poor show late in the season, did not fill in well
3	3	4	3	sl	y	y	Unusual mounds of grasslike silvery foliage with tall sparse leafless stems topped with bright yellow balls, a real conversation piece in the garden but should be planted as background with other yellow flowers
3	3	3	3	n	n	n	Outstanding mounds of green foliage topped with abundant daisy-like flowers, beautiful contrast in flowers with red tipped petals
3	3	3	3	n	y	y	Full of flowers, excellent contrast between white flowers and black centers, nice long stems for cutting
2	2	2	2	y	y	y	Abundant small blooms on stiff stems, very attractive, tends to become floppy in late season
4	3	3	3	n	y	y	Mid sized mounds jammed with flowers, interesting flower color, blooms all season, All America Selections flower award 2003
4	4	4	4	n	n	n	Closes up in cloudy weather, beautiful show when open, holds up well in cold wet weather, great color mix
3	3	3	3	n	n	n	Attractive color, closes up in cloudy weather, best planted in south-facing beds
3	3	3	3	n	n	n	Closes up in cloudy weather, gorgeous in full sun
4	3	3	3	n	n	n	Attractive striped petals, closes up in cloudy weather, gorgeous in full sun
4	4	4	4	n	n	n	Outstanding edging plant with dramatic striping, closes up in evenings and in cold wet weather, choked with blooms when open
3	3	4	3	n	n	n	Excellent contrast between pink flowers and leaves that are chocolate colored with green edges and veins, fills in beds well, one of the best geraniums in ground beds, some deadheading needed, All America Selections Flower Award Winner 2002
3	2	3	3	n	n	n	Fills in bed nicely, needs deadheading especially after long periods of cold wet weather
3	3	3	3	n	n	n	Bright flower colors contrast nicely with even green foliage, needs deadheading
2	2	2	2	y	n	n	Susceptible to disease from the beginning of the summer, poor flower development, ragged stems, few survive to end of summer
3	3	2	3	n	y	y	Late to bloom but worth the wait, some stems and leaves develop unattractive red coloration in cold weather, excellent stem length for cut flowers
1	1	1	1	1	n	n	Very poor survival after planting, not showy
1	1	1	1	1	n	n	Did not become established early in season, died out before mid June
1	1	3	1	1	n	n	No flowers all season, buds showed some color 1 Sept., nice foliage but not worth growing
2	2	2	2	2	n	n	Not vigorous in cold wet summer, better vines available
2	2	2	2	n	n	n	Nice large flowers, fills in better than most impatiens
							Nice flower size, fill in well for impatiens

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Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y				Frost tolerance flowers
			min	max	min	max	Jun	Jul	Aug	Sep	
Impatiens, Garden Joseph's Coat	Dazzler Star Mix	white with pink, red, lavender	3	5	1	1 1/2	✿	✿	✿	✿	-
Larkspur	Purple Knight	burgundy foliage	-	-	-	-	✿	✿	✿	✿	-
Larkspur	Snow Cloud	white	13	19	1/4	1	✿	✿	✿	✿	-
Larkspur	White King	white	17	20	2x1	4x1	✿	✿	✿	✿	-
Lavatera	Easter Parade		-	-	-	-	✿	✿	✿	✿	-
Lavatera	Ruby Regis	pink with dark red veins	9	32	2	4	✿	✿	✿	✿	+
Linaria	Silver Cup	rose					✿	✿	✿	✿	+
Love-in-a-mist	Fantasy Mix	lavender, purple, white, yellow, pink, rose	4	10 1/2	1x 1/4	2x1	✿	✿	✿	✿	+
Marigold, African	Miss Jekyll Blue	yellow, pink, rose blue	15	23	1	1 1/2	✿	✿	✿	✿	-
Marigold, African	Atlantis Mix	yellow and yellow-orange mix	5	9	1 1/4	3 1/2	✿	✿	✿	✿	-
Marigold, African	Discovery Orange	yellow-orange	6	9 1/2	1 3/4	3 3/4	✿	✿	✿	✿	-
Marigold, African	Gold n' Vanilla	yellow, cream, orange mix	6	15	1 1/2	4	✿	✿	✿	✿	-
Marigold, African	Inca II Primrose	light yellow	4	11	2 1/2	4	✿	✿	✿	✿	-
Marigold, African	Mesa Gold	gold	8	8	1 1/2	4.0	✿	✿	✿	✿	-
Marigold, African	Mesa Yellow	yellow	3	9	1 1/4	3 1/2	✿	✿	✿	✿	-
Marigold, African	Pesche's Gold	gold, yellow with yellow centers	12	19	1	3	✿	✿	✿	✿	-
Marigold, African	Sweet Cream	creamy white	13	19	2	3 1/2	✿	✿	✿	✿	-
Marigold, French	Bonanza Bee	gold with red markings	3 1/2	8	1	2 1/2	✿	✿	✿	✿	-
Marigold, French	Bonanza Gold	gold with red markings	4	7 1/2	1 1/2	2 1/2	✿	✿	✿	✿	-
Marigold, French	Improved						✿	✿	✿	✿	-
Marigold, French	Bonanza Harmony	orange with red markings	5 1/2	8 1/2	1	2 1/4	✿	✿	✿	✿	-
Marigold, French	Bonanza Mix	gold, yellow, orange, orange with red markings	4	10	1	2	✿	✿	✿	✿	-
Marigold, French	Bonanza Orange	orange	6	8	1 1/4	3	✿	✿	✿	✿	-
Marigold, French	Bonanza Yellow	yellow	4	12 1/2	1 1/4	2 1/2	✿	✿	✿	✿	-
Marigold, French	China Cat Mix	gold with yellow markings, yellow with gold markings	10	31	1 1/2	2 1/2	✿	✿	✿	✿	+
Marigold, French	Durango Bolero	yellow with gold markings, gold with red markings	5	8 1/2	1 1/2	3	✿	✿	✿	✿	+
Marigold, French	Durango Gold	gold	6	11	1 1/2	3	✿	✿	✿	✿	-
Marigold, French	Durango Mix	yellow, orange, gold, orange with red markings, yellow with red markings	6	12 1/2	2	3	✿	✿	✿	✿	+
Marigold, French	Durango Red	mostly red with orange markings	8	10	1 1/4	2 1/2	✿	✿	✿	✿	-
Marigold, French	Durango Tangerine	orange	6	10	1 1/2	2 1/2	✿	✿	✿	✿	-
Marigold, French	Durango Yellow	yellow	4	12	1 1/2	3	✿	✿	✿	✿	-

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quantity	quality	Flower	Plant ratings ^z				Comments
			Foliage	Overall	Fragrance	Recommended for	
					Cutting	Drying	
1	1	1	1	1	n	n	No flowers, purple foliage, did not grow well all summer, never spread, one upright sprig to show for the season
1	1	1	1	1	n	y	Floppy stems, weak, not much of a show, possibly because plants were started too early in greenhouse, plants disappeared by mid season
1	1	1	1	1	sl	y	Floppy stems, disappeared late in season, try direct seed rather than transplants
1	1	1	1	1	n	y	Poor seed germination, plants never became established, died early in season
3	3	3	3	3	n	y	Bloomed well all season, only Lavatera in trials to grow well, showy all season
1	1	1	1	1	n	y	Plants died early in season following prolonged cold wet weather
4	4	4	4	4	n	y	Abundant carpet of color, very nice mix of colors, looks great after cold wet weather
2	2	2	2	2	n	n	Blooms early then dwindle, entire plant overwhelmed by neighbors
4	3	3	3	3	y	n	Nice mix of colors, abundant fully double blooms, huge balls of color, needs deadheading, does poorly in cold wet weather
3	2	3	3	3	y	n	Heads rot and turn brown in rain, needs late season deadheading, excellent flower size, brilliant color
3	3	3	3	3	y	y	Interesting mix of colors, needs deadheading late in season to remove rotten flowers
3	3	3	3	3	y	n	Attractive color, needs deadheading for best show
3	4	3	3	3	sl	n	Large flowers on stubby plants, incredibly even height, needs deadheading after cold wet weather
3	2	3	3	3	y	n	Huge flower balls on short stubby stems, needs deadheading to remove rotten flowers, nice flower color contrast with foliage
4	4	4	4	4	y	y	Very interesting flowers with frilly edges, abundant blooms, nice big full plant
3	3	3	3	3	y	y	Older flowers turn brown in centers in wet weather, needs deadheading, best cream color, excellent contrast between flowers and dark green foliage
3	2	3	3	3	n	n	Nice compact plant covered with blooms, uniform size, needs deadheading after cold wet weather
3	3	3	3	3	sl	n	Beautiful large flowers, variable plant height, not uniform, abundant blooms
4	4	4	4	4	y	n	Rich flower color, excellent contrast
3	3	3	3	3	n	y	Mixed plants yields uneven height and growth patterns, not attractive as a mix
4	4	4	4	4	y	n	Brilliant colors, carpets of color, needs deadheading, great show
3	3	3	3	3	n	y	Very bright mounds of electric color, nice uniform height, needs deadheading especially after cold wet weather
4	4	4	4	4	y	y	Attractive big mounds covered with blooms, some double, others single, needs no maintenance, great filler
3	3	3	3	3	y	n	Interesting markings on petals, needs deadheading in mid season for full color
3	3	3	3	3	y	y	Nice large flower heads, brilliant colors in early and mid season, does not hold up well in cold wet weather, needs deadheading
2	2	2	2	y	n	y	Unattractive mix of different-sized plants, not the best mix
3	3	3	3	y	n	y	Attractive dark red color, needs deadheading for best color
3	3	3	3	y	n	y	A few mixed colors, very bright, needs deadheading for best color
3	3	3	3	y	n	y	Very nice color display, bright vibrant even color for mass plantings

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Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y				Frost tolerance flowers
			min	max	min	max	Jun	Jul	Aug	Sep	
Marigold, French	Honeycomb	orange with red markings	4	14	1 3/4	2 1/2	* *	* *	* *	* *	- -
Marigold, French	Juliette	gold with red markings	8	16	1 1/2	2 1/2	* *	* *	* *	* *	- -
Marigold, French	La Bamba	yellow with light orange stripes	8	29	3/4	2	* *	* *	* *	* *	- -
Marigold, French	Moonlight	creamy yellow	11	20	1 1/4	2 1/2	* *	* *	* *	* *	- -
Marigold, French	Mr. Majestic	yellow with mahogany strips, mahogany with yellow stripes, yellow, mahogany	7	15	1	1 3/4	* *	* *	* *	* *	- -
Marigold, Signet Millet, Ornamental	Luna Yellow	yellow with mahogany with yellow stripes, yellow, mahogany	15	24	1/2	1	* *	* *	* *	* *	- -
Mimulus	Purple Majesty	yellow with mahogany with yellow stripes, yellow, mahogany	30	-	-	-	* *	* *	* *	* *	- -
Nasturtium	Alaska Salmon	yellow with red spots, red, orange	2	4	1	1 1/2	* *	* *	* *	* *	- -
Nasturtium	Orange	yellow with red spots, red, orange	12	18	2	2 1/2	* *	* *	* *	* *	- -
Nasturtium	Golden Gleam	gold	12	19	2	2 1/2	* *	* *	* *	* *	- -
Nasturtium	Peach Melba	yellow with orange throat	12	28	2	2 1/2	* *	* *	* *	* *	- -
Nasturtium	Superior Wina	yellow with orange throat	12	18	1 1/2	2	* *	* *	* *	* *	- -
Nasturtium	Primrose Jewel	yellow with orange marking in center	10	16	2	2 1/2	* *	* *	* *	* *	- -
Nasturtium	Cream	yellow with orange marking in center	12	18	1 1/2	2	* *	* *	* *	* *	- -
Nasturtium	Tip Top Mahogany	dark orange	12	16	2	2 1/2	* *	* *	* *	* *	- -
Nemesia	Blue and White	blue and white bicolor	4	8 1/2	1/4	1/4	* *	* *	* *	* *	- -
Nemesia	Tapestry	white, red, lavender, gold, pink, rose with dark throat	4	13	1/2	1	* *	* *	* *	* *	- -
Nemophila	Pale Face	white with dark spots	4	7	1/8	1/4	* *	* *	* *	* *	- -
Nicotiana	Fragrant Cloud	white	22	35	1 1/4	3	* *	* *	* *	* *	- -
Nicotiana (alata)	Avalon Bright Pink	pink with rose markings	7	12	1 1/4	2 1/4	* *	* *	* *	* *	+ +
Nicotiana (alata)	Hummingbird Mix	red, pink, white, rose	10	16	1	2 1/2	* *	* *	* *	* *	- -
Nicotiana (alata)	Lime Green	greenish yellow	10	25	3x2	4x4	* *	* *	* *	* *	+ +
Nicotiana (alata)	Saratoga Deep Rose	rose	9	13	1 1/4	2	* *	* *	* *	* *	- -
Nicotiana	Langsdorffii	greenish yellow	18	26	1	1 1/2	* *	* *	* *	* *	+ +
Nicotiana	sylvestris	white	36	60	3/4	1	* *	* *	* *	* *	+ +
Nicotiana (x sanderae)	Merlin Peach	pale peachy pink	9	13	2	2 1/2	* *	* *	* *	* *	+ +

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quantity	Flower quality	Foliage	Overall	Plant ratings ^z			Comments
				Fragrance	Cutting	Drying	
4	4	3	4	y	n	y	Elegant blooms, interesting patterns on flower petals, one of the best French marigolds
3	3	3	3	y	y	y	French, carnation-flowered type, nice large flowers, holds up better than most marigolds in cold wet weather, needs some deadheading
4	4	4	4	n	y	y	Big flouncy plants covered with blooms, excellent flower display even after wet cold weather, fills in bed very well and crowds out neighbors, interesting striped petals
3	4	4	4	n	y	y	Interesting large flowers with fluted edges on petals, large yellow centers, a very different kind of marigold, needs deadheading especially after cold wet weather, excellent flower color
4	3	3	3	sl	n	y	Excellent bushy plant covered with small blooms, interesting pattern ranging from pure colors to stripes and splotches of yellow and mahogany, holds up better than most marigolds in cold wet weather
4	3	3	3	y	n	y	Great mounds of bright color, reliable, attractive all season, needs some deadheading for full season color
2	2	2	2	n	n	n	Poor growth even in raised bed, plants remained short and never bloomed, purple foliage not attractive
3	3	4	3	n	y		Few plant survived after transplanting, huge flowers on tiny plants for those that survived, may be herbicide damage, worth testing in other areas
4	4	3	4	y	y		Attractive white speckled foliage typical of Alaska cultivar, not really salmon color, mostly orange
3	3	3	3	n	y		Giant mounds of foliage and flowers, many flowers hidden beneath the foliage but still a great display, holds up well in cold wet weather
4	4	4	4	n	y		Attractive color, fills in well
2	3	3	3	n	y		Plenty of flowers above foliage, very showy, excellent color, some double flowers
3	3	3	3	n	y		Fills in well, many blooms hidden by foliage
1	1	1	1	n	n		Pale foliage (called golden green in catalogs), nice flowers but many hidden by foliage
1	1	1	1	n	n		Very poor establishment in cold wet summer, just a few good plants that performed well, nice bicolor flowers, compact plants don't fill in well, needs close spacing for best results
1	1	1	1	n			Susceptible to Sclerotinia cottony rot, did not survive well after transplanting in this cold wet summer, many dead plants, poor showing this season, has done much better in other years
2	3	3	3	n	n		Poor survival after planting in cold wet weather, plants grew well later in season, delicate flowers on tiny mounds
4	4	4	4	sl	y		Nice tall stems covered with trumpet-line blooms, great for backgrounds and borders
3	2	2	2	n	n		Interesting light pink color, All America Selections bedding plant winner 2001, variable plant height, covered with blooms, needs deadheading late in season
3	3	3	3	n	n		Uneven height, packed with flowers, spotty flowering late in season
4	3	3	3	sl	y		Excellent color, abundant blooms
3	2	3	3	n	n		Interesting uniform color, very uniform plant height, packed with flowers, not very attractive late in the season, needs deadheading
4	3	3	3	y	y		Excellent color, abundant blooms
3	3	3	3	sl	y		Attracts insects on foliage, nice growth but 'Only the Lonely' cultivar is better
1	1	1	1	sl	n		Unusual flower color, plants don't fill in as well as other nicotianas, nice large blooms, poor establishment in cold wet weather, mixed with N. sylvestris

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Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y			Frost tolerance	
			min	max	min	max	Jun	Jul	Aug	Sep	foliage flowers
Pansy	Baby Bingo Autumn Blaze Mix	yellow and maroon with maroon face, yellow, maroon with yellow markings	4	13	1½	2½	✿	✿	✿	✿	+
Pansy	Bingo Clear White	white with yellow spot in center	5½	10	1	2¾	✿	✿	✿	✿	+
Pansy	Can Can F1	lavender, purple, white with dark face	5½	10	1	2	✿	✿	✿	✿	+
Pansy	Contessa Ruffled Mix	cream, yellow, lavender, rose with dark face	3	9	1	2½	✿	✿	✿	✿	+
Pansy	Copperfield Mix	mostly dark rose with dark face, some cream/red, yellow/red	4½	11	1	2½	✿	✿	✿	✿	+
Pansy	Fana Mixed Colors	cream, yellow, purple, burnt orange, white with purple or dark red face	5	17	1	2¾	✿	✿	✿	✿	+
Pansy	Giant Forerunner Mixture	blue, white, yellow, orange, rose, purple some with dark face	3	15½	1½	3	✿	✿	✿	✿	+
Pansy	Jema Mix	cream, yellow, purple, blue with dark red face	4½	11	¾	3	✿	✿	✿	✿	+
Pansy	Jewel Yellow Sundae	bright yellow burgundy with yellow centers	3	10	¾	1	✿	✿	✿	✿	+
Pansy	Luna	yellow, clear face	6	15	½	3	✿	✿	✿	✿	+
Pansy	Pandora's Box	rose, lavender and yellow with dark centers	3	15	½	2	✿	✿	✿	✿	+
Pansy	Sorrento Sunset	rose, cream, dark rose with yellow centers	6	12	½	2½	✿	✿	✿	✿	+
Pansy	Ultima Morpho	lavender blue/yellow with dark blue markings	4	14	1	2	✿	✿	✿	✿	+
Penstemon	Sensation Mix	rose, cream, lavender, burgundy with white throats	18	24	1	1½	✿	✿	✿	✿	+
Petunia	Aladdin Nautical Mix	white, pink, purple, light blue	3	16	¼	4	✿	✿	✿	✿	+
Petunia	Blue Wave	deep velvety purple	1	7	½	2½	✿	✿	✿	✿	+
Petunia	Celebrity Watercolors	pastel blues pinks, ivory, red, rose	6	19	2	2½	✿	✿	✿	✿	-
Petunia	Double Cascade Mix	pink, rose, white	8	14	3	4½	✿	✿	✿	✿	+
Petunia	Double Cascade	very pale orchid pink	4½	12½	½	4	✿	✿	✿	✿	+
Petunia	Orchid Mist	pink with dark pink veins	9	14	½	3½	✿	✿	✿	✿	+
Petunia	Double Cascade	Pink Soft	6	12	2	2½	✿	✿	✿	✿	+
Petunia	Dreams Mix Patriot	white, purple, red									+

^w if the plant is uniform in height, the height is recorded under max only.

^x if flower size is uniform, size occurs in max only; sizes with an x like 12x3 indicates a spike flower type with the height x width.

^y * indicates just starting to bloom, ♀ indicates 50% bloom, and ☺ indicates full bloom.

quantity	Flower quality	Plant ratings ^z			Recommended for			Comments
		Foliage	Overall	Fragrance	Cutting	Drying		
4	4	3	4	y	y	y	Unusual and interesting flower colors, needs deadheading after cold wet weather	
4	4	4	4	y	y	y	Very nice large flowers, clear white petals, excellent vibrant color all season	
3	2	2	2	n	y	y	Nice ruffled edges with dark faces, first hybrid ruffled pansy, needs deadheading following prolonged rains to remove splotchy flowers	
3	3	3	3	y	y	y	Holds up well in cold wet weather, very nice ruffled edges	
4	3	3	3	n	y	y	Interesting color, bright vivid colors, abundant blooms cover mounds of foliage	
3	3	3	3	y	y	y	Large flowers, some with dark faces, some clear, needs deadheading especially after prolonged cold wet weather	
3	3	3	3	y	y	y	Mix of all kinds of colors, will work with just about any color scheme, nice big flowers	
2	2	3	2	sl	y	y	Lots of spotting on petals and foliage, not the most attractive pansy	
4	4	4	4	sl	y	y	Eyepopping mounds of brilliant yellow	
3	3	3	3	y	y	y	Velvety flowers with bright yellow center spots, needs deadheading especially after cold wet weather, flowers are ragged and splotchy in prolonged rain	
4	3	3	3	n	y	y	Reliable color all season, very nice color, no maintenance needed	
4	4	4	4	y	y	y	Great mounds of color nearly all season, very reliable, unusual and attractive color	
3	2	3	3	n	y	y	Attractive flower color, flowers look ragged following rain, not the best in cold wet weather	
4	4	4	4	y	y	y	All America Selections 2002, outstanding color, interesting two toned effect with blue on top petals and bright yellow beneath, striking dark blue markings, needs deadheading, abundant blooms, looks ratty after periods of cold wet weather	
2	3	3	3	n	y	y	Holds up well in cold wet weather, beautiful foxglove-like flowers, very nice mix of colors, early growth is floppy but late-season stems are upright	
3	3	3	3	n	n	n	Excellent color mix, forms nice mounds covered with blooms all season	
4	4	4	4	sl	n	n	Outstanding carpet of velvety flowers, spreads well, All America Selections flower award winner 2003	
3	3	3	3	sl	n	n	Holds up well in cold wet weather, one of the best petunias this season, little damage from Sclerotinia cottony rot	
3	3	3	3	sl	n	n	Splotchy petals after rain, susceptible to Sclerotinia cottony rot, large double flowers most spectacular early in season	
3	3	3	3	sl	n	n	Very large flowers, attractive blooms, needs deadheading, susceptible to Sclerotinia cottony rot	
3	3	2	3	n	n	n	Nice bushy plants with huge flowers, best display early to mid season, holds up better than most petunias in cold wet weather, susceptible to Sclerotinia cottony rot	
3	3	3	3	n	n	n	Attractive mix of colors, needs deadheading to maintain all season color	

Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y				Frost tolerance	foliage flowers
			min	max	min	max	Jun	Jul	Aug	Sep		
Petunia	Dreams White	white	6	14	1 3/4	3	✿	✿	✿	✿	-	-
Petunia	Fantasy Mix Ball	red, purple, pink, lavender, white, rose	3	4 1/2	3/4	1 3/4	✿	✿	✿	✿	+	-
Petunia	Frillytunia Rose	deep rose pink	3	13	2 1/4	2 1/2	✿	✿	✿	✿	+	+
Petunia	Madness Clear Mix	purple, rose, pink, white,	4	13	1 1/2	3 1/2	✿	✿	✿	✿	+	+
Petunia	Madness Double Pink rose	magenta, coral	8	13	2	3	✿	✿	✿	✿	-	-
Petunia	Madness Double Salmon	pink with rose throat and veins	8	11	2	2 1/2	✿	✿	✿	✿	-	-
Petunia	Madness Double Sheer Improved	dusky rose with dark red markings	5	12	1 1/2	3	✿	✿	✿	✿	+	+
Petunia	Madness Magenta	magenta	6	13	2	3	✿	✿	✿	✿	-	-
Petunia	Madness Mix Merlot	red, burgundy, pink, white, rose	4	9	2	2 1/2	✿	✿	✿	✿	+	+
Petunia	Madness Waterfall Mix	magenta, pink, purple, white	3	13	1 1/2	3	✿	✿	✿	✿	+	+
Petunia	Merlin Blue Morn	purple with light purple throat	8	17	1 1/2	3	✿	✿	✿	✿	+	+
Petunia	Old Glory	white, purple, red	2	11	1 1/2	3	✿	✿	✿	✿	-	-
Petunia	Stars & Stripes	red w/white stripe, purple, white, purple w/white stripe	5	13 1/2	3	3 3/4	✿	✿	✿	✿	+	+
Petunia	Tidal Wave Silver	silvery lavender with purple veins and throat	4	11	1 1/2	3	✿	✿	✿	✿	-	-
Petunia	Ultra Salmon Morn	salmon pink with cream throat	6	15	1 1/2	3 1/2	✿	✿	✿	✿	+	+
Petunia	Wave Lavender	purplish pink	2	5 1/2	1	2 1/2	✿	✿	✿	✿	+	+
Petunia	Yellow Magic	yellow	6	12	2	3	✿	✿	✿	✿	-	-
Phlox, Garden	21st Century Mix	red, white, purple, lavender	2	6	1		✿	✿	✿	✿	+	+
Phlox, Hybrid	Patriot	pink, white, rose, lavender, red	5	7	1/4	3/4	✿	✿	✿	✿	+	+
Portulaca	Mount Hampden		1	5	3/4	1 1/2	✿	✿	✿	✿	-	-
Portulaca	Margarita Rosita	rose	2	2 1/2	1	1 1/2	✿	✿	✿	✿	-	-
Portulaca	Sundial Peach	peach										
Rudbeckia	Cherokee Sunset	gold, gold streaked with mahogany, mahogany with mahogany centers	13	28	3	6	✿	✿	✿	✿	+	+
Rudbeckia	Chim Chimine™	mahogany, gold with mahogany centers	6	27	3	6	✿	✿	✿	✿	+	+
Rudbeckia	Double Gold	gold with brown centers	10	31	3 1/2	5	✿	✿	✿	✿	+	+
Rudbeckia	Irish Eyes	gold with green centers	7	32	3 1/2	6	✿	✿	✿	✿	+	+
Rudbeckia	Prairie Sun	gold fading to yellow at tips, green centers	10	25	3	6 1/2	✿	✿	✿	✿	+	+

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quantity	Flower quality	Plant ratings ^z				Comments
		Foliage	Overall	Fragrance	Cutting	
2	2	2	2	n	n	Susceptible to Sclerotinia cottony rot, poor survival through season, nice color early, splotchy ragged flowers in cold wet weather
3	3	3	3	y	n	Early in season plant is small mound, more flowers than plant, slow to fill out bed, variable height, abundant petite flowers cover the mounds, needs deadheading
3	3	3	3	y	n	Very ornamental frilly-edged blooms, strong vibrant rose color
3	3	3	3	sl	n	Upright and spreading stems, fills in well, nice mix of colors
3	3	3	3	sl	n	Large double-petaled flowers, best in mid season
2	3	2	2	sl	n	Excellent early in season, but needs deadheading, watersoaked and ratty in cold wet weather, establishes poorly in cold weather
3	3	3	3	sl	n	Nice double flowers early in season, needs deadheading, susceptible to Sclerotinia cottony rot, has more flowers than most doubles late in season
3	3	3	3	y	n	Excellent electric blooms early in season, susceptible to Sclerotinia cottony rot if not treated
3	3	3	3	y	n	Susceptible to Sclerotinia cottony rot, splotchy flowers after rains, nice mix of pink colors
3	3	3	3	sl	n	Nice color mix, fills in well
3	3	3	3	sl	n	Poor seed germination, outstanding flower color, fills in well forming mounds of color, All America Selections flower award 2003
3	3	3	3	y	n	Plants fill in well, nice mix of colors, purple flowers most fragrant
3	3	3	3	y	n	Nice mix of colors with some striped flowers, fills in well
4	4	3	3	sl	n	Outstanding mounds of color, fills in the entire bed and beyond
3	2	2	2	sl	n	Very nice color, blooms well all season, splotchy flowers after rain, needs deadheading
3	3	3	3	sl	n	Spreads well, forms short carpet of color, best blooms in mid to late summer
4	4	3	4	sl	n	Excellent 2-toned yellow flowers, excellent contrast with green foliage, great upright flowers, nice show
1	2	1	1	n	n	poor quality, little spread
1	1	1	1	n	n	Outstanding small mounds of semi-double flowers in some years but not this one, poor survival after planting and very poor show in this cold season
1	1	1	1	n	n	Grew poorly in this cold summer, did not spread, few flowers, All America Selections Winner 2001
1	1	1	1	n	n	Poor growth this season, nice semi-double flowers, needs deadheading for best all-season color, best grown on warm sites, perhaps raised beds or containers
3	3	3	3	n	y	Interesting rich colors, mostly mahogany, some fully double and semi-double flowers, most singles, All America Selections 2002
2	2	3	2	n	y	Unusual linear petals on some flowers, nice mix of golds and mahogany, excellent for cutting, not the most showy rudbeckia
3	4	3	3	n	y	Unusual double flowers, interesting contrast to usual rudbeckias, very attractive
4	3	3	3	n	y	Very nice green centers, flowers smaller than other rudbeckias but very ornamental
3	3	3	3	n	y	Interesting two-toned petals and green centers, abundant blooms

^z 0=dead; 1=poor, diseased, rotten or not showy; 2=fair, other cultivars of its kind have been better; 3=good, worth growing, nice ornamental; 4=outstanding quality, the best of its kind grown in the garden.

Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y			Frost tolerance	
			min	max	min	max	Jun	Jul	Aug	Sep	Foliage
Rudbeckia	Sonora	gold with brown markings, brown centers	8	25	3	4½	✿	✿	✿	✿	+
Rudbeckia	Spotlight	gold with brown centers, brown spot on petals	5	8½	1¼	3¾	✿	✿	✿	✿	-
Rudbeckia	Sputnik (Kelvedon Star)	royal blue	18	26	2½	4	✿	✿	✿	✿	-
Salvia	Victoria	pink, purple bracts	20	29	3x1	7x1	✿	✿	✿	✿	+
Salvia (horminum)	Claryssa Mix	silver and lavender bicolor	10	17	3½x1	3½x3	✿	✿	✿	✿	+
Salvia, Mealy-cup	Strata	silver and lavender bicolor	11	18	6x1	12x1	✿	✿	✿	✿	+
Salvia, Scarlet	Blue Ribbon	lavender	6	10½	1½x1½	5½x2	✿	✿	✿	✿	-
Salvia, Scarlet	Empire Orange	dark orange bracts with light orange to white flowers	4	12	5x2	6x3	✿	✿	✿	✿	-
Salvia (viridis)	Bicolor	pink, lavender, white bracts	7	12	3x1½	4x1½	✿	✿	✿	✿	+
Sanvitalia	Marble Arch Mix	Irish Eyes	2	7½	½	1	✿	✿	✿	✿	+
Sanvitalia	Orange Sprite	yellow with green centers	10	10	¼	½	✿	✿	✿	✿	-
Scabiosa	Ace of Spades	orange with chocolate centers	2	10	½	½	✿	✿	✿	✿	-
Scabiosa	Salmon Queen	burgundy with light spots	8	24	1	2½	✿	✿	✿	✿	+
Shasta Daisy	Alaska	salmon pink	10	24	¾	2½	✿	✿	✿	✿	+
Shasta Daisy	Crazy Daisy	white with yellow centers	18	31	2	4	✿	✿	✿	✿	+
Shasta Daisy	Polaris	white with yellow centers	17	27	2¾	5	✿	✿	✿	✿	+
Shasta Daisy	Silver Princess	white with yellow centers	21	32	¾	4½	✿	✿	✿	✿	+
Snapdragon	Double Azalea	white with yellow centers	12	31	3	5	✿	✿	✿	✿	+
Snapdragon	Apricot	apricot/light orange	13	24	6x4	16x4	✿	✿	✿	✿	-
Snapdragon	Double Azalea Pink	pink	19	30	6x2	8½x2	✿	✿	✿	✿	+
Snapdragon	Dwarf Kim Mix	yellow, red, pink, lavender, rose	5½	11	1½x¾	4½x2½	✿	✿	✿	✿	+
Snapdragon	Floral Showers Purple	deep purplish rose	5	10	1x1	2x1½	✿	✿	✿	✿	+
Snapdragon	Freesong White	white with yellow lip	9	29½	3x1½	12x3	✿	✿	✿	✿	+
Snapdragon	Frosted Sunset	pink with yellow throat	13½	19	1x1	5x2	✿	✿	✿	✿	+
Snapdragon	Liberty	red, cherry, orange, rose, yellow, lavender, white	14	26	2½x1½	9x3	✿	✿	✿	✿	+
Snapdragon	Madame Butterfly	pink, yellow, rose, red, white	12	19	3x2	6x3	✿	✿	✿	✿	+
Snapdragon	Ribbon Yellow	yellow	13	25	13x3	9x3½	✿	✿	✿	✿	-

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		Plant ratings ^z				Recommended for			Comments	
quantity	Flower quality	Foliage	Overall	Fragrance	Cutting	Drying				
4	3	3	3	n	y	y	Interesting burgundy patterns on petals, nice addition to line of good rudbeckias			
2	2	1	2	n	n	y	Poor survival after planting, does not fill in bed, needs close spacing, catalogs show interesting brown spot on each petal but did not occur on all plants, uneven quality			
3	3	3	3	n	y	n	Interesting mahogany markings on petals, reliable, full of blooms			
3	3	3	3	n	y	y	Holds up well in cold wet weather, excellent filler or background plant, nice stem length for cutting			
3	3	3	3	n	y	y	Poor seed germination, upright stems, great mix of colors but better when planted as single color, i.e. 'Claryssa Pink'			
3	3	3	3	n	n	Interesting silver and lavender spikes, great stems for cutting, also dries well, not as showy as solid color salvias such as Victoria			21	
3	3	3	3	n	n	Very nice color, flowers turn brown when old, needs deadheading Susceptible to Sclerotinia cottony rot, needs deadheading, interesting bicolor flowers, one of the nicer salvias for this area				
2	2	3	2	n	y	y	Shorter than other salvias of this type and not as showy, white-bracted plants perform poorly, give mix a ragged appearance			
4	4	4	4	n	n	Tolerates cold wet weather, unusual greenish centers on flowers, nice mounding plant, little maintenance needed, nice mounds of color nearly all season				
3	3	3	3	n	y	y	Rich velvety appearance, lavender anthers give pin cushion look, elegant			
3	3	3	3	y	y	Holds up well in cold wet weather, floppy stems, late to bloom but very nice "pin cushions", young flowers dark pink, older ones fade to light pink				
4	4	4	4	n	y	Still the best shasta daisy, robust plants covered with blooms in mid season, excellent for cutting				
3	3	3	3	n	y	Overwhelmed by neighboring plants, not much of a show, interesting abundant linear petals, petals become brown-tipped in cold wet weather, unusual mix of doubles and crinkled petals, lots of variability in flower form				
1	3	3	2	y	y	One of the best Shasta types in other years, excellent tall, straight stems for cutting, very large flowers, this year very late with lots of buds but few flowers				
4	2	2	2	n	y	Odd mixture of stem heights, ragged appearance, outstanding individual flowers				
3	3	3	3	n	y	Some lodging of stems, outstanding double, open flowers, attractive large flowers				
2	3	3	3	y	y	Interesting open butterfly-type flowers with ruffled edges, very ornamental but floppy stems, needs support for best display				
3	3	3	3	n	n	Nice carpet of color, needs deadheading for continuous color				
3	3	3	3	n	n	Excellent carpet of color nearly all season, needs deadheading for best display, more red than purple				
3	3	3	3	n	y	Variable flower height, nice clear white color, shorter than other snapdragon cultivars				
3	3	3	3	n	y	Interesting 2-toned flower color, medium sized snap, abundant blooms				
3	3	3	3	n	y	Strong, straight stems, good for cutting				
3	3	3	3	n	y	Ruffled petals, good color mix				
3	3	3	3	n	y	Needs deadheading, nice straight stems for cutting, excellent color, poor growth in cold wet weather				

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Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y				Frost tolerance
			min	max	min	max	Jun	Jul	Aug	Sep	
Snapdragon	Rocket Mix F1	pink, red, yellow, orange, white, orchid	21	36	3x2	7x3	✿	✿	✿	✿	+
Snapdragon	Solstice Hybrid Mix	orange, pink, white	10	18	2x2½	7x2½	✿	✿	✿	✿	+
Snapdragon	Sonnet Mix	yellow, orange, rose, pink, white with yellow lip	12	26	4x2	14x3½	✿	✿	✿	✿	+
Snapdragon, Dwarf	Sonnet White	white	12	26	4x2	14x3½	✿	✿	✿	✿	+
Spilanthes, Eyeball Plant	Improved										+
Statice	Summer Skies	lavender	3	9	⅓	⅓	✿	✿	✿	✿	-
Strawflower	Peek-A-Boo	yellow with red centers	3	8	¼	½	✿	✿	✿	✿	-
Sunflower	Pastel Shades Mix	pink, lavender, white, rose red, orange, yellow, burgundy	13	26	1½x⅓	2¾x1	✿	✿	✿	✿	+
Sunflower	Salsa Mix		15	37	1	2	✿	✿	✿	✿	+
Sunflower	Bohemian Rhapsody	gold streaked with mahogany, chocolate centers	24	48	2½	6	✿	✿	✿	✿	-
Sunflower	Chianti	gold with brown centers	48	60	4	6½	✿	✿	✿	✿	-
Sunflower	Dorado	golden orange with black center	24	28	4	6	✿	✿	✿	✿	-
Sunflower	Ikarus	yellow with chocolate centers	38	48	4	6	✿	✿	✿	✿	-
Sunflower	Infrared Hybrid	mostly dark red with chocolate centers	40	60	4½	7	✿	✿	✿	✿	-
Sunflower	Lemon Flair	yellow with brown centers	34	37½	3½	7½	✿	✿	✿	✿	-
Sunflower	Park's Velvet Tapestry	yellow, mahogany, dk red with brown centers	60	70	4½	7	✿	✿	✿	✿	-
Sunflower	Ring of Fire	yellow with dark red ring, brown centers	19	46	3½	5½	✿	✿	✿	✿	-
Sunflower	Starburst Aura	gold	35½	40	4½	7½	✿	✿	✿	✿	-
Sunflower	Sundown	gold, mahogany	40	50	4½	6	✿	✿	✿	✿	-
Sunflower	Tiger's Eye Mix	gold with reddish brown markings, mahogany	55	60	4	7	✿	✿	✿	✿	-
Sunflower	Vanilla Ice	light yellow with dark brown centers	55	60	4	5	✿	✿	✿	✿	-
Sweet Mace											
Tidy-tips	orange		7	12	¼	1	✿	✿	+	+	
Verbena (bonariensis)	white and yellow		9	20	¾	1½	✿	✿	+	+	
Verbena, Garden	Verbena bonariensis	lavender	24	35	½	1	✿	✿	+	+	
Verbena, Garden	Crystal Ball Mix	pink, lavender, rose, white, red, purple, peach	9½	12	1¼	2	✿	✿	+	+	
Verbena, Garden	Liberty for All	red with white eye. lavender, white	5	9½	1	2½	✿	✿	+	+	
Verbena, Garden	Quartz Blue	purple with lavender centers	3½	10	1	2	✿	✿	+	+	

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quantity	quality	Foliage	Overall	Plant ratings ^z			Comments
				Flower	Fragrance	Cutting	
3	3	3	3	n	y		Holds up well in cold wet weather, excellent mix of colors, nice stem length for cutting, some lodging
3	3	3	3	n	y	n	Attractive mix of colors, needs deadheading for best color
3	3	3	3	n	y		Nice mix of colors, strong upright stems for cutting
3	3	3	3	n	y		Needs deadheading to extend bloom time
4	3	3	3	sl	n		Similar to Linaria in growth and form, fills in well to form nice lavender ground cover, also makes nice filler in containers
3	3	3	3	n	n		Very unusual flower, looks like eyeballs on a stick, plant has red stems and reddish foliage, would be outstanding in a children's garden, fills in well, great for front of beds
3	3	3	3	n	y		Very nice mix of pastel shades, good strong stems for cutting, vibrant colors
4	4	4	4	n	y		Holds up well in cold wet weather, nice tall straight stems, excellent for cutting, the best showiest strawflower in the Garden
3	3	3	3	n	y	n	Shorter than expected, nice medium sized flower heads
3	3	3	3	n	y		Medium sized heads, declines by mid August, nice small sunflower
3	3	3	3	n	y	n	Excellent long-blooming medium-sized sunflower perfect for cutting, many flowers per stem, great background plant
4	3	3	3	n	y	y	Small flowers, finished by mid August, nice rich colors
3	3	3	3	n	y		Interesting feathery heads, plant declines by mid August, small heads, good for cutting
3	3	3	3	n	y		Attracts bees, nice mix of flower colors, good size for floral designs
3	3	3	3	n	y	y	Interesting bicolor blooms, All America Selections winner 2001, short plant with multiple flower heads per stem
3	3	3	3	n	y		Short plant with multiple branches of small feathery flowers, needs some deadheading after cold wet weather
3	3	3	3	n	y		Nice rich colors, medium sized multiple heads
3	3	3	3	n	y		Weak stems needs staking, interesting color mix of flowers, some all ray flowers, others with brown stripe patterns on ray flowers
3	3	3	3	n	y		Poor seed germination, very nice yellow color, flowers small but abundant, rays larger than disk
3	3	3	3	n	y		Attractive orange color, medium-sized plants topped with clusters of tiny flowers, good filler or accent for edging
2	2	2	2	n	y	y	Nice early but died out by mid August, not sure if it was cold weather or disease
4	4	4	4	n	y	y	Tall open spreading stems with small clusters of lavender flowers, good filler or background plant
3	3	3	3	y	y		Similar to Quartz Mix, very nice color mix, needs deadheading in late summer
3	3	3	3	n	n		Attractive mix of colors, fills in well, needs deadheading for best color
3	3	3	3	sl	y		Nice two-toned flowers, needs deadheading, not "blue"

^z 0=dead; 1=poor, diseased, rotten or not showy; 2=fair, other cultivars of its kind have been better; 3=good, worth growing, nice ornamental; 4=outstanding quality, the best of its kind grown in the garden.

Table 3. Results of tested cultivars for 2002, cont.

Name	Cultivar	Flower color	Height (in) ^w		Flower size (in) ^x		Flowering period ^y				Frost tolerance flowers
			min	max	min	max	Jun	Jul	Aug	Sep	
Verbena, Garden	Quartz Burgundy	burgundy	3	6	1	1½	✿	✿	✿	✿	-
Verbena, Garden	Quartz Burgundy Eye	burgundy with white center	4	9	1	2	✿	✿	✿	✿	+
Verbena, Garden	Quartz Mix Waterfall	purple, lavender, cream, rosy purple	5	10	2	2½	✿	✿	✿	✿	+
Verbena, Garden	Quartz Red with Eye	cherry red with white centers	4½	11	1¼	2¼	✿	✿	✿	✿	+
Verbena, Garden	Quartz Rose	rose, some lavender	6	10½	1	2	✿	✿	✿	✿	+
Verbena, Garden	Quartz Scarlet	scarlet	5½	10	1	2	✿	✿	✿	✿	+
Verbena, Garden	Quartz White	white	6	10	1	2¼	✿	✿	✿	✿	+
Verbena, Garden	Tickled Pink	pink edges with cream centers	3	9	1¼	2¼	✿	✿	✿	✿	-
Verbena, Rose	Perfecta	hot pink	5½	15	¾	2¼	✿	✿	✿	✿	+
Verbena, Rose	Eye of the Tiger	yellow with brown markings	4	10	½	1½	✿	✿	✿	✿	+
Viola	Penny Porcelain	purple and lavender with cream centers	6	12	1	1¼	✿	✿	✿	✿	+
Viola	Sorbet Blueberry Cream	lavender blue and cream with dark blue markings and yellow center	3½	17	¾	1½	✿	✿	✿	✿	+
Zinnia, Garden	Benary's Giant Golden Yellow	golden yellow	13	26	3	4	✿	✿	✿	✿	-
Zinnia, Garden	Bright Jewels Mixture	magenta, white, pink, rose	7	16½	2¼	3	✿	✿	✿	✿	-
Zinnia, Garden	Park's Picks Mix	yellow, lilac, rose, light green, red, white, purple	17	27	½	4	✿	✿	✿	✿	-
Zinnia, Garden	Pink Ruffles	pink with yellow centers	12	25	1	2	✿	✿	✿	✿	-
Zinnia, Garden	Purple Dahlia	magenta	7	12	¼	¾	✿	✿	✿	✿	-
Zinnia (haageana)	Profusion Orange	dark orange and yellow-orange	6	13½	1	2½	✿	✿	✿	✿	-
Zinnia (haageana)	Profusion White	white with yellow centers	5	11½	1	2½	✿	✿	✿	✿	-
Zinnia Hybrid	Dreamland Coral	orange	6	13	½	¾	✿	✿	✿	✿	-
Zinnia, Mexican	Chippendale Daisy	orange and red mixed patterns	11	19	¾	2½	✿	✿	✿	✿	-
Zinnia (tenuifolia)	Red Spider	scarlet	7	32	½	½	✿	✿	✿	✿	-

^w if the plant is uniform in height, the height is recorded under max only.^x if flower size is uniform, size occurs in max only; sizes with an x like 12×3 indicates a spike flower type with the height x width.^y ♦ indicates just starting to bloom, ♦ indicates 50% bloom, and ♦ indicates full bloom.

		Plant ratings ^z				Comments
Flower quantity	Foliage quality	Overall	Fragrance	Cutting	Drying	
2	2	2	n	y		Excellent color, needs some deadheading
3	2	3	n	y		Small flower clusters, not the best showiest Verbena, needs deadheading
3	3	3	3	y	y	Very nice display, covered with flowers, needs deadheading to maintain flowers
4	4	4	4	n	y	Excellent flower size, great contrast with white "eyes" needs deadheading
3	3	3	3	n	y	Some mixed colors, mostly rose, needs deadheading
3	3	3	3	n	y	Outstanding, eye popping flowers cover the foliage, one of the best shows of color for verbenas, needs deadheading
3	3	3	y	y		Beautiful pure white flowers, nice contrast with dark green foliage, needs deadheading
3	3	3	sl	y		Interesting two-tone color, pink fading to cream, very pretty in full bloom, needs some deadheading in mid to late season, large flower clusters, fills in very well
4	4	4	4	n	y	Fills in well and blooms well all season, mounds are covered with color all season, no maintenance needed
3	3	3	n	y	y	Striking flowers with contrasting dark markings on yellow petals, plants remain small, need close spacing to fill in bed
4	4	4	y	y		Outstanding mounds of flowers, excellent after periods of cold wet weather, one of the best violas
4	4	4	n	y	y	Holds up well in cold wet weather, outstanding color, mounds of blooms
3	3	3	n	y	y	Uneven plant height, very attractive color, excellent flower size, great stem length for cutting, needs some deadheading
2	2	2	n	y		Some diseased foliage, nothing special
3	3	3	n	y	y	Fully double, dahlia form blooms, nice stiff stems for cutting
3	3	3	n	y		One orange-flowered plant, nice, compact flowers, needs closer spacing for full blooms
2	2	3	n	y	y	Sparse flowers, weak stems, nice flower color
3	3	3	n	n	y	Outstanding brilliant flowers, electric mounds that fill in bed well, very ornamental, deadheading needed in cold wet weather
2	1	1	n	n	y	Poor growth this year in cold wet weather, foliage severely spotted, needs deadheading, better in previous years
2	2	3	2	n	y	Outstanding flower color, plants are mounds of bright orange, interesting two-toned effect with dark orange older petals and tawny center petals, variable height, stems a little short on some plants for cutting, nice early but doesn't last through season
4	4	4	n	y	y	Abundant small flowers cover this plant, excellent color nearly all season, great filler or accent plant
2	2	2	n	y	y	Interesting flower shape, upward recurved petals, flowers are tiny for size of plant, not showy except in mass plantings

Table 4 Test results on completed cultivars

Name	Cultivar	Ave. ^a Overall Rating	Ave. ^a Foliage ht (in)	Ave. ^a Foliage Rating	Min flower ht (in)	Ave. ^a Max Flower ht (in)	Ave. ^a Min Flower ht (in)	Ave. ^a Max Flower Size (in)	Ave. ^a Ave. Flower Size (in)	Ave. ^a Flower Quality	Ave. ^a Flower Quantity
Ageratum	Blue Bouquet	3	19.5	3	10.7	29.3	.2	.9	3	3	3
Ageratum	Red Sea	3.3	12.5	3.3	9.7	18.3	.25	.7	3.3	2.7	2.7
Ageratum	Southern Cross	3.3	7	3.3	7	12.1	.3	.4	3.3	2.3	2.3
Ageratum	Weisser Schnitt	3	18.5	3	9.1	24.2	.3	.9	3	2.3	2.3
Ageratum (Lonas)	Goldrush	2.7	10	2.3	4	10	.6	1.1	3	3	3
Alyssum	Aphrodite Mix	2.	2.5	2.3	1.5	5.1	.2	.3	2.3	2.3	2.3
Aster	Carpet of Snow	3.3	12	3.3	3.6	8.3	1x1	1x2.8	3	3.7	3.7
Aster, Annual	Pompon Splendid	3.7	24	3.3	12.3	23.3	1.5	2.7	3.7	2.7	2.7
Aster, Annual	Single California	3	25	3	12.2	28	3.1	3.3	3	3.3	3.3
Aster, Annual	Tiger Paws Mixed	3.3	18	3.3	10	22.5	2.4	4.9	3.3	3.3	3.3
Calendula	Calypso Orange/ Champagne & Roses	2	2	11.3	12	1.8	2.6	2.7	2.7	2.7	2.7
California Poppy	Chilean Glory Vine	3.3	15	3.3	6	19.8	.9	2.2	3.3	2.7	2.7
Cleome	Queen Mix	3	30	3	70.1	72.4	1	1	3.3	3	3
Cosmos	Gazebo White	3.7	24	3.7	31	46	8.7	3.1	3	2	2
Cosmos	Pied Piper Red	2.7	30	3	20	33	1.7	2.9	3	1.3	1.3
Cosmos	Sensations Mix	3.3	33	3.3	20.7	33.2	2.3	4.1	3.3	2	2
Cosmos	Versailles Mixed	3.7	25	3.3	16.3	31.5	2.1	3.8	3.3	2.3	2.3
Cosmos	Yellow Garden	1	2	18.7	29.3	1.1	1.8	1	1	1	1
Dahlia	Figaro	2.7	2.7	10.7	14.7	2	4.2	2.7	3	3	3
Dianthus	Bouquet Purple	3.3	18	3	12.2	22	1	1.4	3.3	2.3	2.3
Drumstick Flower	Floral Lace Salmon	2.7	6	2.7	3.2	1.2	1.7	2.7	1.7	3.0	3.0
Gazania	Goldstick	2.8	20	3.2	19.7	36.1	.8	1.2	2.8	1.7	1.7
Impatiens, Garden	Daybreak Mix	4	14.8	3.7	9.3	14.3	1.9	3.3	4	4	4
Marigold, African	Dazzler® Pink Deep	2.3	2	2.3	2.3	4.7	1.2	1.8	2.3	2	2
Marigold, African	Atlantis Mix	3.3	9	3.3	6.3	11.8	2.1	4	3.3	3.3	3.3
Marigold, African	Discovery Orange	3.2	6.3	3.2	4.8	9.3	2.1	4.1	2.8	3	3
Marigold, African	Mesa Gold	3.3	4	3.3	6	8.5	2.2	3.9	3.7	3	3
Marigold, African	Mesa Yellow	3.2	5	3.2	4.2	9.7	1.9	3.8	2.8	3	3
Marigold, French	Sweet Cream	3.2	11	3.2	10.7	16.3	1.8	3.3	3.2	3	3
Nasturtium	Juliette	3	8	3	6	15	1.5	2.8	3	2	2
Nemesis	Strawberries and	2	21	2	6	11.3	1.3	1.7	2	1.3	1.3
Nicotiana (alata)	Tip Top Mahogany	2.7	15.5	2.7	7.8	13.8	1.8	2.4	3	2.7	2.7
Nicotiana (alata)	Tapestry	2.3	9	2.3	4.8	13.7	.6	.9	2.3	2.3	2.3
Nicotiana (alata)	Avalon Bright Pink	2.2	10	2.2	8.3	14.7	1.4	2.1	2.2	3.3	3.3
Nicotiana (alata)	Hummingbird Mix	3	11	2.7	10.3	18	1.3	2.1	3	2.3	2.3
Pansy	Saratoga Deep Rose	3.3	9.5	3	7.5	14	1.3	1.8	3	2.3	2.3
Pansy	Can Can F1	2.3	9.5	2.3	6.8	12.7	1.2	2.4	2.7	2	2
Pansy	Contessa Ruffled Mix	3.3	12	3	4.3	9	1.7	2.9	3.3	2.3	2.3
Pansy	Fama Mixed Colors	3.7	9.5	3.7	5.3	14.8	1.4	2.5	3.7	2.3	2.3
Penstemon	Sensation Mix	2.7	17	2.7	13.3	26.2	2.5x5	4x10	2.7	1.7	2.3
Petunia	Celebrity Watercolors	2.3	2.3	2.3	5.7	11	1.5	1.8	2	2	2.3

^a 0=dead, 1=poor, diseased, rotten or not showy; 2=fair; other cultivars of its kind have been better; 3=good, worth growing, nice ornamental; 4=outstanding quality, the best of its kind grown in the garden.

Table 4 Test results on completed cultivars, cont.

Name	Cultivar	Ave. ^z Overall Rating	Ave. ^z Foliage ht (in)	Ave. ^z Foliage Rating	Min flower ht (in)	Ave. ^z Flower ht (in)	Max Flower ht (in)	Ave. ^z Flower Size (in)	Ave. ^z Flower Size (in)	Ave. ^z Flower Quality
Petunia	Dreams White	2	9.5	1.7	6.3	13.3	.9	2.9	2.3	1.3
Petunia	Fantasy Mix Ball	2.7	5.3	3	4.2	10.3	.9	1.8	2.	2.3
Petunia	Madness Mix Merlot	3	13	2.7	5.	12.7	2.2	2.8	3.3	3.3
Phlox, Hybrid	Mount Hampden	2.3	4	2.3	4	8.3	.3	.8	2.5	2.3
Portulaca	Margarita Rosita	2.3	4	2.3	1.7	6	.8	1.8	2.3	1
Portulaca	Sundial Peach	2.3	3.8	2.3	2.3	5.8	1.1	1.9	2.3	1.3
Rudbeckia	Irish Eyes	3	16	3	10.7	33.8	3.8	6.3	3	3.3
Salvia	Victoria	3.3	15	3.3	17.7	28.7	1x3	1x6	3.3	3.3
Salvia, Scarlet	Empire Orange Bicolor	2	9	2	6.3	11	1.8x4.5	2x5	2.3	1.7
Sanvitalia	Irish Eyes	3.8	6.5	3.8	4	10.5	.7	1	3.8	2.7
Scabiosa	Salmon Queen	2.7	18	2.7	9.7	25.5	1.7	2.3	2.7	3
Snapdragon	Double Azalea Apricot	3.3	8	3.3	12	30.3	3x5	4x10	3.3	3.3
Snapdragon	Freesong White	3.2	12.5	3.2	11.7	25.8	1.4x2.5	2.8x9.8	3.2	1
Snapdragon	Ribbon Yellow	3	9	3	11.3	22.7	2.5x5.6	3x12.5	3	3
Snapdragon	Rocket Mix F1	3.2	24	3.3	15.5	32.3	2.3x4.5	3x11.2	3	3.3
Strawflower	Salsa Mix	4	33	3.7	21.5	44.3	1.3	2.5	4	4
Sunflower	Park's Velvet Tapestry	3	3	3	58.7	79	4.5	6.7	3	3
Sunflower	Ring of Fire	2.8	21	2.5	21.3	45.3	2.9	5.5	2.8	2
Sunflower	Tiger's Eye Mix	3	3	3	48.7	64.7	4.7	7.7	3	3
Sunflower	Vanilla Ice	3	3	3	49.7	58.3	3.3	4.4	3	3
Verbena, Garden	Quartz Burgundy	3.3	5	3.3	4	11.7	.6	.9	3.3	2
Verbena, Garden	Tickled Pink	3	7.5	3.3	5	9.7	.8	1.1	3.3	3
Viola	Sorbet Blueberry Cream	3.7	11	3.7	7.3	15.5	.9	1.4	3.7	2.7
Zinnia, Garden	Benary's Giant Golden Yellow	3	22	3	14	25.5	2.3	3.6	1	1
Zinnia, Garden	Park's Picks Mix	3	12	3	16.3	28.3	1.5	4	3	2
Zinnia (haageana)	Profusion Orange	2.3	9	2.3	3	9.2	.6	1.8	2.3	2.3

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