

Annual Flowering Plant Evaluations 2010

by:

Patricia S. Holloway
Grant E. M. Matheke
Katherine DiCristina
Etta Gardiner
and Judy Weber

volunteers:

Vicki Hill
Eileen Van Whye

student interns:

Dylan Bradley
Jackson Drew
Sarah Evridge
Riva Sazama
Shona Snater

Agricultural and Forestry Experiment Station

University of Alaska Fairbanks
AFES Publications Office
P.O. Box 757200
Fairbanks, AK 99775-7200
fynrpub@uaf.edu + www.uaf.edu/snras + http://snras.blogspot.com
907.474.6923 or 907.474.5042 + fax: 907.474.6184
Georgeson Botanical Garden: 907.474.7222
GBG website: http://georgesonbg.org

NOTE: Variety Trials circulars are published by the Alaska Agricultural and Forestry Experiment Station to provide information summarizing research, and are usually written for a specific lay audience. Variety trials often present information about ongoing or inconclusive applied research and experiments. They may consist of secondary information or be a bulletin or journal article summary.

To simplify terminology, we may use product or equipment trade names. We are not endorsing products or firms mentioned. Publication material may be reprinted provided no endorsement of a commercial product is stated or implied. Please credit the researchers involved, the University of Alaska Fairbanks, and the Agricultural and Forestry Experiment Station.

The University of Alaska Fairbanks is accredited by the Commission on Colleges and Universities of the Northwest Association of Schools and Colleges. UAF is an affirmative action/equal opportunity employer and educational institution.



Left to right: Dahlia 'Parkland rave'; Ornamental kales and giant cabbages; Morning glory 'Grandpa Ott's'.
Photos by Katie DiCristina and Riva Sazama



INTRODUCTION

Each year more than 300 annual flowering plants are grown in field trials at the Georgeson Botanical Garden. The annual flower trials were planted on 1 June, 2010 in the Annual Flower Display Garden of the Georgeson Botanical Garden (64° 51'N, 147° 52'W). The Fairbanks silt loam soils (pH 6.5) have been cultivated since 1910 and have been amended repeatedly with manure and more recently compost. The field beds were fertilized with 10-20-20S (4 lbs per 100 sq. ft., 195 g per sq meter). Baskets and containers were filled with equal parts Triple R brand composted soil mix (Risse Greenhouses) and Pro Mix Bedding plant soilless potting mix supplemented with Terra.Sorb water absorbing crystals. Flowers were grown as seedling transplants with the exception of sweet peas and scarlet runner beans that were direct seeded. Transplants were hardened off outdoors for one week prior to transplanting.

2

All cultivars in garden beds were planted according to recommended commercial spacing guidelines in unreplicated beds. Plant numbers varied according to plot size. The granular herbicide Preen (Trifluralin), was applied on 12 June to all plots. Plots were irrigated as needed throughout the summer.

Weather data were compiled annually from a U.S. Weather Service station, elevation 475ft (145m), located approximately 350ft (107m) west of the garden. 2010 was the fourth warmest growing season since 2000 (based on thaw degree days, Table 1). The growing season lasted 129 days (last frost May 17 – first frost September 21). The average temperature in May was the second warmest in the past ten years, reaching a high of 81 degrees on May 28. Temperatures and precipitation in June were close to normal. July temperatures were normal, however precipitation was 1.6” above average. August temperatures were 2.8 degrees above normal and reached a record breaking daily high on August 15. September averages were 2 degrees above normal for temperature and .21” less precipitation than normal. (Weather discussion is based on data from the Alaska Climate Research Center, University of Alaska Fairbanks and weather data from the U.S. Weather Station west of the garden. See tables 1 & 2.)

Plot evaluations began immediately after planting and continued weekly through September. They consisted of flowering dates, occurrence of disease, insect pests, and off-type plants (Table 3). Each cultivar was measured for plant height and flower size, rated for performance of flowers and foliage, and evaluated for fragrance and suitability as cut or dried flowers. Each cultivar grown in the garden beds is tested for at least three years depending on availability of seeds or plugs. Those that completed three years in trials in 2010 are listed in Table 4.

Table 1. Weather data from the U.S. Weather Service station located just west of the garden for years 2000 - 2010.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Average temperature (°F):											
May	44	45	50	44	52	56	50	50	47.8	50	52
June	59	57	58	61	66	67	59	60	58.2	58	59
July	59	61	61	61	65	63	62	64	58.9	65	61
August	52	57	54	55	62	58	55	60	52.6	53	59
September	41	49	47	41	38	46	50	47	45.5	47	46
Maximum temperature (°F):	83	95	85	82	90	85	80	84	84	90	91
Growing season:											
Last frost	May 15	May 13	May 12	May 24	May 8	May 5	June 4	May 13	May 30	May 17	May 14
First frost	Sept 16	Sept 24	Sept 2	Sept 13	Sept 4	Sept 2	Sept 25	Sept 22	Sept 21	Sept 20	Sept 21
Frost free days	124	134	113	112	119	120	112	132	113	125	129
Thaw degree days*	2943	3439	2980	3123	3751	3767	3523	3728	3185.5	3473	3606
Rainfall (inches)	8.55	5.8	9.35	9.91	5.6	10.59	7.86	11.32	8.96	6.4	8.35
Previous winter season:											
Minimum temperature (°F)	-50	-27	-36	-35	-45	-50	-49	-41.7	-46.1	-49.2	-41
Snowfall (inches)	62.2	39.9	39.7	33.2	51.7	70.9	51.8	25.2	46.9	68.6	25.4

* Thaw degree days = Cumulative (1 May - 30 Sep) average daily temperature minus 32 °F baseline.

The wet weather in July did induce an outbreak of *Sclerotinia* (cottony rot), which can be a problem in wetter years when no fungicide is applied. The fungus hit the petunias particularly hard, and many were removed from the garden early in the season to prevent further spread of the disease. Ornamentals that were not afflicted with *Sclerotinia* offered beautiful displays throughout the extended season. Overall, 2010 offered a long prolific season at the Garden and around much of the Tanana Valley.

Table 2. Weather data summaries for growing sesason years 2008-2010.

	MAY			JUNE			JULY			AUGUST			SEPTEMBER		
Temperature °F	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Average daily maximum	60	63	65	69	70	70	68	78	71	63	63	70	56	58	59
Monthly high	69	79	81	81	85	79	84	90	85	74	84	91	70	73	69
Average daily minimum	36	37	39	47	47	49	49	51	51	42	44	48	36	36	34
Monthly low	23	30	26	39	37	45	42	41	41	35	31	35	15	20	11
Rainfall (inches)	0.54	0.03	0.57	1.94	2.74	1.78	3.65	0.20	3.33	2.26	2.59	1.76	0.57	0.84	0.91

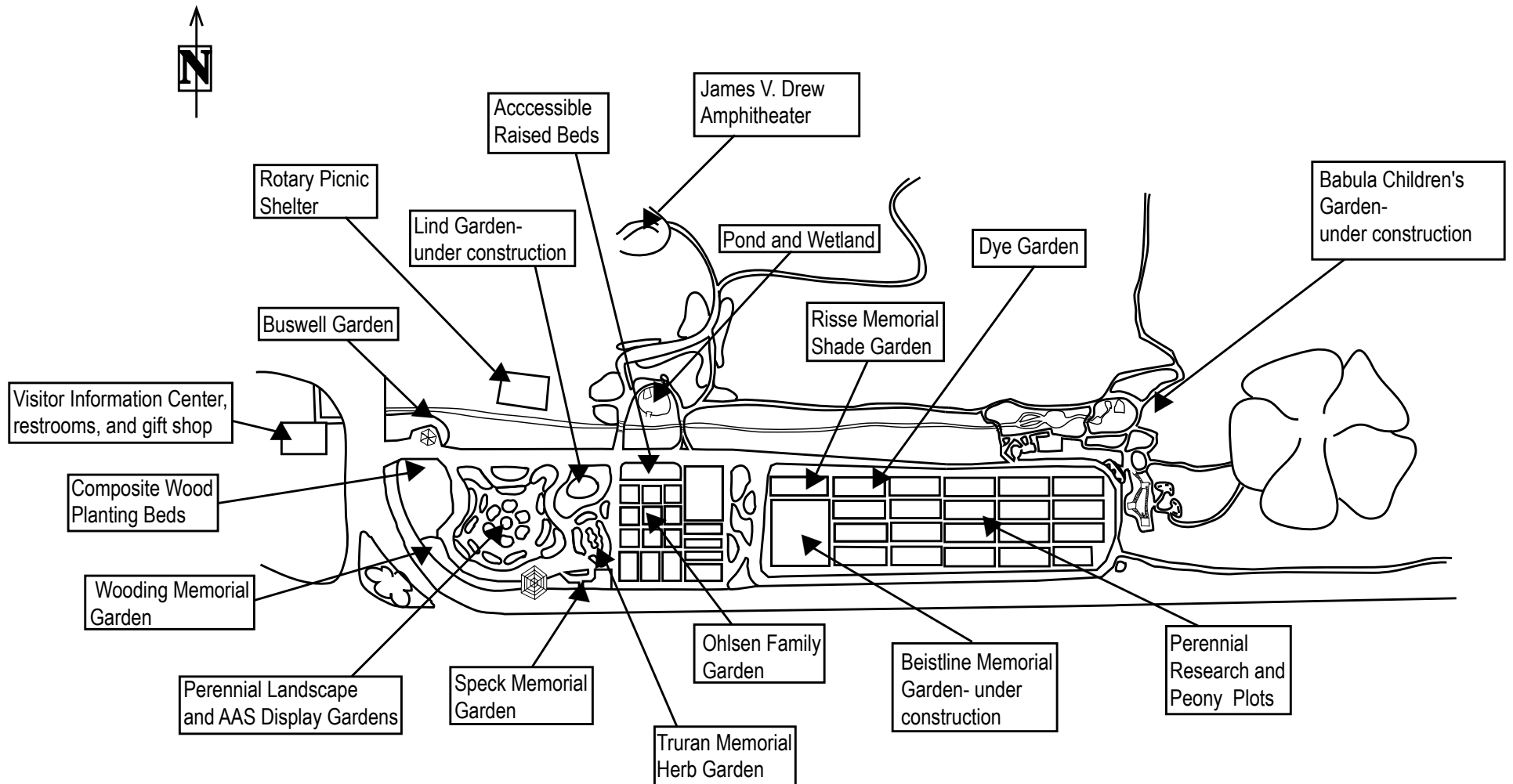


Table 3. Results of tested annual flower cultivars for 2010.

							Flowering Period ^y										
common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
African Daisy	Buff Beauty	apricot	21.5	12	2.5	1	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
African Lion's Tail*	Staircase		60	48													
Ageratum	Timeless Rose	rose, purple	28	7	1.25	.75	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Ageratum	Dondo Blue	lavender	27.5	7	1.5	.75	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Ageratum	Leda Bicolor	blue	11.5	5	2.25	.75	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Amaranth, Feathered*	Autumn Palette	orange	27	20	9.25	7.25			⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Amberboa		lavender	29	7	2.5	1.25			⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Sea Holly, Annual		lavender	27.5	16													
Aster, China	Matsumoto Red Stripe	maroon w/ white stripes	26.5	18	2.75	1				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Aster, China	Pink Tower	pink	25	18.5	4	1.25								*	*	⊗	⊗
Aster, China	Lemonetta	yellow	24	18	3.5	2.5						*	*	⊗	⊗	⊗	⊗
Bacopa	Blutopia	lavender blue	6	2	.5	.25	⊗	⊗	⊗	⊗	⊗			*	⊗	⊗	⊗
Balloon Cottonbush*		white	66	49	1.5	1							*				
Balsam	Camellia flowered Mixed Colors	rose, white, peach	37	19	2	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Basket Flower*		pink															
Begonia, Fibrous	Bada Bing™ Mix																
Begonia, Fibrous	Bada Boom™ Mix																
Bells of Ireland		green	17	10.5	13x2.5	4x1.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	*	*

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Plant Ratings ^z				Recommended For			Comments
Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
2	2	2	2	n			Small, bushy plant loaded with apricot blooms. Great display but closes up in cold, cloudy weather.
1	1	3	1				Poor germination this year and in 2009. The plants grew to very large size but no blooms.
4	4	4	4	n	y	y	Poor germination. Needed reseeding. Flowers are an interesting two-toned dusky rose with new flowers being dark, and fully open flowers paler and some nearly white. Some are also lavender.
3	3	3	3	sl	y	y	Poor germination in 2010. Nice cut flower but not as floriferous as other cultivars. Good blooms all summer.
2	3	2	3	sl	y	y	Short, compact plant loaded with blooms. Beautiful bicolor blooms.
1	1	1	1	n			Grew well in the summer heat. Tall spikes with interesting bloom color but spikes dry to an ugly brown in mid August. Did not flower in 2008, a cool summer.
3	3	3	3	y	n	n	Interesting needle-like petals around a whitish pincushion center. Loaded with blooms all summer. Needs deadheading.
		3	3	n	n	n	Bushy plant with spiky foliage. Few blooms this year in raised beds. Grew better in ground beds in 2008.
3	3	3	3	sl	y	y	Excellent bunches of blooms on branched stems; rich color; great cut flower.
2	3	3	2	sl	y	y	Poor germination in 2008-09. Tall upright stems with very attractive blooms in midseason in 2010.
4	3	4	4	n			Peony-like blooms. Lemon-yellow petals fade to cream at the tips. Plants are uniform height, loaded with blooms, bushy. Plants fill in well and produce great display from mid season onward.
1	2	2	2	n	n	n	Tiny leaves and small lavender flowers on cascading branches; bloomed nearly all summer as filler for containers. In ground beds, foliage becomes purplish, plants spread a bit, but need close spacing for best effect. Very short ground cover for the front of beds.
1	1	1	1	n	n	n	Very tall bushy plant looks like willow branches. Flowers are nondescript, tiny white clusters in axles of the branches. A few balloon seed pods covered with soft hairs appeared in late season but were totally hidden by foliage.
4	4	4	4	sl	n	n	Attractive upright bushy stems with a variety of flower colors. Great background plant. Flowers hug the center stalk and are often hidden in beneath the foliage; this cultivar is an exception. All America Selections winner 1959.
1	1	1	1				Tall, floppy, thistle-like flowers with feathery petals and fuzzy calyx. Needs to be mass planted for best display and stems need support.
							Very poor germination this year.
							Very poor germination this year.
2	2	2	2	y	y		Poor germination this year. Bloomed early, then died out.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Bidens	Gold Star	yellow	31	17	1.5	.75				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Blue Spiderwort	Suaveolens	blue	30	11	.5	.25	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	
Browallia	Silver Bells	blue															
Bupleurum	Deco	greenish yellow	30	11	1.25	.75	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Butterfly Flower	Angel Wings	lavender, pink, white mix	21.5	2.25	1	.25		*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
Calendula	Red Heart	yellow, orange with red centers	22	14	3	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Candytuft		white	8	6	1.5	1.25	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*
Chenopodium	Strawberry Sticks	green	5.5	2	4.75	3	*	*	⊗	⊗	⊗	⊗	*	*	*		
Chilean Glory Vine*	Tresco Crimson	cream, crimson	85	57	1	.75					*	⊗	⊗	⊗	⊗	⊗	⊗
Chocolate Flower		gold with brown centers	11	2.5	3	2				*	*	⊗	⊗	⊗	⊗	⊗	*
Chrysanthemum, Tricolor	Dunnettii Choice Mix	white, yellow, bronze, crimson	28	10	3	1.25		*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cleome*	Colour Fountain Mix	purple, pink, white bicolor with white	56	17	6x3.5	3x2				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cleome	Violet Queen	violet rose	71	42	10x7	3.25x7				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cleome	White Spider	pink	22	15	1.5x2	.5x1		*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*
Coleus	Chocolate Dark	lavender	19	7	11.25x1	2.5x.5				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Coleus	Chocolate Mint	lavender	11.5	8.5	5x1.5	2x.5					⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	3	3	3	sl	n	n	Large, bushy, spreading, floppy stems with lots of golden blooms; in ground beds it needs lots of room to expand or they overwhelm the neighbors. Must be in a very large container to keep in scale with the spread.
3	2	3	3	n	n	n	Tall upright stems with single blooms in the axles of the leaves. Brownish seed pods late in season are ugly. Brilliant clear blue flower color.
1	1	1	1				No growth this season. Died out shortly after planting.
2	3	3	3	n	n	n	Interesting greenish-yellow blooms on bushy plants. Would be great as filler but pretty blah by itself.
3	3	3	3	n	n	n	Bushy plant with tall, floppy stems. Best early in the season but still colorful in cold, wet August weather. Stems begin to yellow in late season. Best as a filler.
3	3	3	3	sl			Bushy, yellow and orange mix with reddish centers. Covered with aphids this season. Needs significant deadheading to maintain show.
2	2	2	2	n	n	n	Bushy plants covered with clusters of white blooms in early summer; needs significant deadheading to avoid seed production. Heirloom plant.
1	1	1	1	n	n	n	Planted as single stems already loaded with balls of red edible fruit. Did not expand much after initial planting. Looked ragged all season and was overwhelmed by neighbors. Not very ornamental. Poor germination in 2010.
3	3	3	3	n	n	n	Poor germination this year. Excellent growth to the top of the trellis. Very ornamental leaves and flowers.
2	3	3	3	n	n	n	Tiny daisy flowers with brown centers, sparse through the season. Not the best show. Died out in early September. Smells like chocolate. Poor germination in 2010 from 2009 seeds.
4	3	3	3	y			Brightly colored mix of single and double flowers. Stems are very upright and ragged. Individual plants vary in bloom quantity making for uneven display.
2	2	2	2	sl	y	n	No germination in 2008 and 2009. Fifty percent germination in 2010 from new seeds. Short stems, not showy.
3	3	3	3	sl			Tall spikes, almost burgundy color. Excellent background plant.
2	2	2	2	n			Tiny blooms, bushy plants. Okay as filler. Not a showy plant.
3	3	3	3	n	n	n	Did not grow and fill in containers; just a few sticks with curled leaves, many of which rotted in late summer. Poor germination in 2010. Excellent, almost black color.
3	2	2	2	n	n	n	Chocolate foliage edged in mint green recommended for bedding, containers; rich, velvety appearance; fill in well in containers in shade; loaded with flowers late in the season; very attractive.

Table 3. Results of tested annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Coleus	Chocolate Splash	lavender	14	8	5x3	2.5x1			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Coleus	Kong™ Salmon Pink		14	12.75	7.5x1	7x1								*	*	⊗	⊗
Coleus	Velvet	lavender	15.25	13	8.5x1	6x1				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Coleus	Versa Burgundy to Green	lavender	18.5	7	6x1	1.5x .125				*				*	⊗	⊗	⊗
Coleus	Versa Crimson Gold	lavender	10	4.5												⊗	⊗
Coleus	Versa Green Halo	lavender	14	8						*	*	*	*	⊗	⊗	⊗	⊗
Coleus	Versa Lime	lavender	15	7						⊗	⊗	*	*	*	*	*	⊗
Coleus	Versa Rose to Lime	lavender	18	7.5	8x.5	1x.25				⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Coleus	Versa Watermelon	lavender	10	3.5													
Corn Marigold	Eastern Star		29	8.5	3	1.5	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos*	Gazebo Mix	pink, white, magenta	27	12	3.75	1			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos*	Picotee	pink with magenta edges, yellow centers	38	6	3	1.5		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos*	Psyche Mix	magenta, pink	38	24	5	1.75				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos	Purity	white	36	30	3.5	3				*	*	*	⊗	⊗	⊗	⊗	⊗
Cosmos	Rose Bonbon	pink	30	17	3.75	2				⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos	Rubenza	red	30	18	4.5	1.25	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos	Sensation Mix	pink, white, rose, carmine	40	30	3.5	2				⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
2	2	3	2	n	n	n	Interesting patterns of deep burgundy splashes on light green leaves. Plant did not fill in well and many leaves became brown in cool late season weather. Scraggly appearance. Poor germination in 2010.
2	2	2	2	n	n	n	Poor growth in 2009 and 2010; little height growth; did not fill in containers. Huge leaves. Burgundy rimmed in green.
3	2	2	2	n	n	n	Outstanding mounds of deep red foliage; a few flowers; fills in containers well; rich velvety appearance.
2	2	4	3	n	n	n	Nice bushy plant filled the container with light green leaves with just a touch of burgundy at the petiole. Some flowers. Not the most ornamental coleus we have grown.
		4	3	n	n	n	Largest bushy coleus this summer. Not the most ornamental color; burgundy centers with lime edges. Some blooms but minor compared to leaves.
2	2	2	2	n	n	n	Bushy plant most of the season. Poor appearance in cool weather. Centers of leaves become brown, papery late in season.
		2	2	n	n	n	The brightest color of all coleus this season; brilliant lime-green solid color. Some flowers. Not as bushy as other coleus, lots of open spaces in container. Leaves edged in brown late in the season.
3	2	3	3	n	n	n	Tall upright plants did not fill in well; lots of open spaces in containers all summer. Foliage is light green with red at the petiole end. Some flowers. Smaller leaves than other coleus.
2	2	4	3	n	n	n	Nice bright colors, medium-sized bush with very few flowers. Leaves are bright red interior with light green edges. More ornamental than Versa Crimson Gold. Holds up well all season. Few flowers.
3	3	3	3	n			Bushy plant loaded with daisies. Upright facing flowers over silver foliage. Very attractive. Fills in well.
2	3	3	2	n	y	n	Medium-sized bushes, few flowers. Mostly green feathery bush.
3	3	3	3	n		n	Interesting and attractive flowers but smaller flowers than other cosmos. Petals edged in dark colors. The most blooms of all cosmos this year.
2	2	2	2	y	y	n	Double petals, big bushy plants with lots of blooms late in August.
3	3	3	3	n	y	n	Big bushy plants. Few blooms.
3	3	3	3	sl		n	Interesting double pink blooms. Few flowers on bushy green stems.
3	3	3	3	n		n	Fleuroselect Novelty Award.
3	3	3	3	n	y	n	Big bushy plants with lots of foliage, few flowers. Needs dark treatment flower induction treatment for best flowering.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Cosmos	Sonata Pink Blush	pink with magenta near center, yellow centers	31	19	4.5	1.75				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Cosmos	Sweet Dreams																*
Creeping Gloxinia	Satin Slippers	white, lavender, rose	59	24	1.25	.75		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Crepis		pink	20	10.5	2.25	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗				
Dahlia*	Black Beauty	yellow, rose, red	35	11	2.5	2.5				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Dahlia*	Blue Moon	pink											*	⊗	⊗	⊗	⊗
Dahlia*	Bodacious	red tipped with yellow		40	5.5	5.5										⊗	⊗
Dahlia*	Bracken Lorelei	yellow tipped with orange	62	50	4.5	2.5							*	*	*	⊗	⊗
Dahlia*	Candlelight		53	42	6	5							*	⊗	⊗	⊗	⊗
Dahlia*	Clyde's Choice		35	33	5.5	3								*	⊗	⊗	⊗
Dahlia*	Crimson Snow		35	33	5.5	3									⊗	⊗	⊗
Dahlia*	Emory Paul	red and white	17	3	2	.5										⊗	⊗
Dahlia*	Finn	pink	48	40	5	4.5					⊗	⊗	*	⊗	⊗	⊗	⊗
Dahlia*	Gitte Perfection	Pink and cream	48	46	8	3.5							*	*	*	⊗	⊗
Dahlia*	Heather Feather	light pink												⊗	⊗	⊗	⊗
Dahlia*	Jayleen G.	dark peach	54	47	6	4							*	⊗	⊗	⊗	⊗
Dahlia*	Kelvin Floodlight	yellow	56	40	9	7			*	*	⊗	⊗	*	⊗	⊗	⊗	⊗
Dahlia*	Maggie C.	yellow with orange overtones											*	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	3	3	3	sl	y	n	Medium-sized bushy plants, few flowers. The flowers that formed needed significant deadheading to maintain ornamental appearance.
1	1	3	2	n		n	Big bushy plants, no blooms.
3	3	3	3	n			Thin delicate leaves and gorgeous vining habit, mostly upright rather than hanging. Rampant vines climb up the basket hangers and twine around the roof of the shade house. Blooms appear late. Not abundant but gorgeous. Plants are mix of colors.
2	3	2	3	n			Seedling transplants damaged by voles before planting.
3	4	3	3	sl	y		Big bushes covered with single blooms. Not uniform height. Some dieback late in summer. Burgundy, almost black foliage.
1	1	1	1	n	y		No blooms this season. Medium-sized bushy plants.
2	3	2	2	n	y		Unusual blooms with striking yellow tips. Medium to large-sized blooms. Looks like fire with yellow tips.
2	3	3	3	n	y		Small to medium blooms. Very attractive flower color.
2	2	3	3	n	y		
2	3	3	3	n	y		
2	3	3	3	n	y		
2	2	2	2	y	y		Yellow foliage. Balls of blooms. Needs serious deadheading.
3	3	3	3	n	y		Medium-sized blooms mostly hidden in foliage. Lots of buds in late season but too close to frost.
3	4	4	4	n	y		Large, but few, blooms with attractive, pointed, cactus-type petals. Outer petals are pink; inner ones are creamy white; very attractive. Very upright stems.
					y		Small to medium-sized blooms with a clear lavender pink color. Petals fade slightly at the tips. Multiple blooms per plant.
3	3	3	3	n	y	n	Very tall plant with abundant blooms. Flowers face upward and new buds are abundant above the open flowers. Great long stems for cutting.
3	4	4	4	n	y		Outstanding medium-sized but abundant blooms held well above the foliage. Very colorful display from mid-season onward.
					y		Nice upright two-toned blooms. Very feathery appearance. Foliage is very wrinkled.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August				
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	
Dahlia*	Margaret Allen		53	49	9	7										✿	✿	
Dahlia*	Myrtle's Folly	red finged with yellow	41	30	7.5	4									*	✿	✿	
Dahlia*	Parkland Rose	rose	50	40	5.75	3							*	✿	✿	✿	✿	
Dahlia*	Pineapple Lollipop	yellow	43.5	31.5	3.5	2						*	*	✿	✿	✿	✿	
Dahlia*	Richard Rogers	rose	40	26	12	4.25							*	*	✿	✿	✿	
Dahlia*	San Luis Rey	lavender and cream	36	32	6.5	6.5										✿	✿	
Dahlia*	September Morn	Pink with yellow near centers	69	53	6	4								✿	✿	✿	✿	
Dahlia*	Summer Breeze	gold and orange	47	34	6	5									*	✿	✿	
Dahlia*	Tyler James	peach and orange		33	6.5	6.5										✿	✿	
Dahlia*	Victoria Ann	white tipped with pink	64	43	6	4.75								*	*	✿	✿	
Dahlia*	Walter Hardisty	white	54	30.5	9	5										✿	✿	
Dahlia*	Wildwood Marie	peach	54	42	5.75	5.5										✿	✿	
Dianthus	Bouquet™ Rose	deep rose	22	10	1.25	.75		*	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Dianthus*	Sweet Red White Eye	red and white	17	3	2	.5		*	✿	✿	✿	✿			*	✿	✿	
Dianthus	Telstar Crimson F1	red	12	2.5	1.25	.75	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Dianthus*	Telstar Picotee F1		14.25	4.5	1.5	1	*	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Dianthus	Telstar Type Burgundy F1	magenta	10.5	4	1.25	.75	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Dianthus	Telstar White F1	white	16	4	1.25	1	*	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ✿ indicates 50% bloom, and ✿ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	3	3	3	n	y		
3	3	3	3	n	y		Large powderpuffs of thin feathery flowers. Very showy.
3	3	3	3	n	y		Tall plant covered with cactus-type flowers, medium-sized. Very attractive display.
3	3	3	3	n	y		Excellent, compact blooms. Very geometric. Abundant formal decorative blooms.
3	4	4	4	n	y		Enormous blooms in clear deep rose red fading to light rose at the tips. Outstanding show. Shorter than all other dahlias in trials.
3	2	3	3	n	y		Tall plant with lots of medium-sized blooms. Excellent two-toned blooms.
3	3	3	3	n	y		Medium-sized blooms with very attractive bicolor blooms. The outer petals are bright pink. The petals toward the center are yellow. Petals slightly recurved.
2	2	2	2	n	y		Two-toned small to medium-sized blooms, gold with orange tips. Plant loaded with blooms. Not the best show this summer.
1	1	2	1	n	y		No blooms this year. Lots of bush.
3	4	4	4	n	y		Small to medium blooms, many per plant. Floppy petals. Very tall compared to other dahlias.
3	3	3	3	n	y		Large white blooms, not many per plant, but showy. Informal decorative flowers. Needs deadheading. Old petals are brown, ugly.
3	3	3	3	n	y		Outstanding, abundant peach blooms with dark peach undersides of petals. Very ornamental.
3	2	2	2	n			Lacy, slightly scented flowers top strong, well-branched stems. No staking needed. Plants are a brilliant spot of color. Very attractive. No maintenance required. Claims to be hardy to -30°F.
2	2	2	2	y	y		Yellow foliage. Balls of blooms. Needs serious deadheading.
4	4	4	4	n			Brilliant bright red, superb color with darker red markings at center. All-season color and great display in mass plantings.
3	4	4	4	sl			Superb show all summer. Very reliable. Great as edging or mass plantings. Plants covered with blooms all summer. Little maintenance required.
4	4	4	4	n			Superb eye-popping color. Outstanding display of color all season. Best in mass plantings.
4	3	3	3	y			Great mounds of white, excellent show for border edges. Some variation in plant height but great in mass plantings.

Table 3. Results of tested annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
European Meadow Rush*	Blue Arrows		7	2.5													
Feverfew	Crown White	white	20	10.5	.5	.13	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Foxglove	Camelot Cream	creamy white, burgundy spots	44	28	22x6	9x3.25						⊗	⊗	⊗	⊗	⊗	⊗
Foxglove	Camelot Lavender		55	26.5	25x4.5	5.5x4.5					*	*	⊗	⊗	⊗	⊗	⊗
Foxglove*	Camelot Rose	deep rose	48	36	24x6	10x6							*	*	⊗	⊗	⊗
Foxglove	Camelot Rose	salmon	42	37.5	15x4.5	12x4.5								*	⊗	⊗	⊗
Foxglove	Camelot White	white with purple specks	36	12	24x6	18x4								*	*	*	*
Foxglove, Chinese		rose	48	4	22x5	12x5							*	*	*	⊗	⊗
Gaillardia	Burgundy	burgundy	22.5	9	3.25	1				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Gaillardia	Mesa Yellow	yellow	17	9	3.75	1			*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Gaillardia	Sundance Cream	yellow	18	5	2.25	1		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Geranium	BullsEye™ Cherry	red	16.5	11	4.5	2.25	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Geranium	Horizon Coral Spice	coral	17	11	3.75	2	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Grass, Feather	Capriccio		33	24													
Grass, Great Quaking*		green	28	8													
Helenium	Autumn Lollipops	yellow and bronze	37	20	.5	.13					*	*	⊗	⊗	⊗	⊗	⊗

14

w: If the plant was uniform in height, the height is recorded under max only. *= plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. **= plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
		2	2		n	n	Grown for its stiff, upright blue-green foliage, recommended for bedding and mixed containers; Foliage is thin, upright; needs room to spread out; not good at front of beds; use as a background.
4	3	3	3	y	n	n	Bushy, mounding plants covered with small white flowers. Great as filler or in mass plantings. Variable height leads to ragged appearance late in season.
3	3	3	3	n			Poor germination this year.
3	4	3	3	n			Poor germination this year. Planted only 6 plants. Nice tall spikes of blooms late in season.
3	3	3	3	n	y	n	Finally another first-year blooming foxglove for northern gardens; outstanding height and rich color display; attracts bees and bumblebees; a visitor favorite in late season.
2	4	3	2	n			No blooms this season. Foliage barely visible through the season. Not showy. Big difference among colors in this series.
1	2	2	1	n	y	n	Just started to bloom in late August. Nice clear white but too late. Only one spike appeared.
2	2	2	2	n	y	n	Flowering shoots formed very late, but did not bloom; poor growth this year.
3	3	3	3	sl	y		Large flowers, very nice deep red color. Blooms in mid to late season, but display is good at the end of the season when other flowers fade.
3	3	3	3	n	y		The first commercial yellow gaillardia from seed. 2010 All-America Selections winner and Fleuroselect Gold Medal Award. Small bushy plants loaded with blooms. Bright display when all in full bloom. Needs significant deadheading to maintain neat appearance. Variable height give ragged appearance.
4	4	4	4	sl	y		Small bushy plants covered with creamy or yellowish blooms in various stages of development. Few flowers in full bloom at one time. Not the most attractive plants because of variable blooms.
4	4	4	4	sl			Rich chocolate foliage. Recommended for containers. Bloomed well and filled in well all season in ground beds.
4	4	4	4	sl			Early flowering plant with excellent basal branching. Lots of blooms all season long.
		3	3	n	n	n	Fine-textured, wispy grass for bedding or mixed containers and hanging baskets. Needs to be mass planted for best effect.
3	3	3	3	n	y	y	Interesting floppy flowers and seed heads; good in dried arrangements; good as medium-sized background plant. Whole plant becomes brown in midseason.
3	3	3	3	n	y		Curious plant for borders, ball-like heads with basal frill of ruffled petals. Great cut flower. Not the most showy plant but big, bushy, and covered with brownish balls.

Table 3. Results of tested annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Heliopsis*	Giant Double Hybrids	yellow	36.5	16.5	4	1.5				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Heliopsis*	Golden Double Hybrids	gold	29.5	9	3.25	2.25				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Heliopsis	Summer Sun	gold	25	11	3.5	1				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Hollyhock*	Creme de Cassis	rose	30	24													
Hollyhock*	Spring Celebrities Mixture		23	20	3.25	1.25											
Impatiens, Garden	ImpaNG Divine Orange Bronze Leaf		5.5	4.5	3	2				*	*	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	ImpaSD Super Elfin X P Lilac	rose with white centers	9.5	3	2	1	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	ImpaSD Super Elfin X P Rose Starburst	rosy lavender pink	7	4	2	1	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	ImpaSD Super Elfin X P Violet Improved		9	4.5	1.5	1	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	Super Elfin X P Cherry Splash	pink	8	3	1.75	1	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	Super Elfin X P Red Starburst	pink with white centers	9	2	2.25	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	Super Elfin X P Rose Improved	rose	8	2	2	1.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Impatiens, Garden	Super Elfin X P Violet Starburst	rose pink	9.25	2.25	2.25	1.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	3	3	3	y	y	n	Very pretty daisy-like blooms. Tall, bushy plant loaded with blooms. Little maintenance required.
3	3	3	3	sl	y	n	Brilliant golden daisies, some double, some single. Bushy plants loaded with blooms from midseason onward. Variable height gives a ragged appearance. Excellent cut flower.
3	4	4	4	n	y	n	Tall bushy plant with upright stems loaded with blooms from mid season onward. Flowers have greenish tinge to petals as they open, then become pure gold. Excellent cut flower.
1	1	2	1	n			Blooms just beginning to appear late in the season. Tall stately spikes but effect is mostly green leaves.
2	2	2	2	n			Very little growth. No blooms.
2	1	3	2	n	n	n	Poor growth, few flowers. Does not fill in as well as other impatiens.
2	2	2	2	n	n	n	Showy blooms but not as floriferous as other impatiens. Plants are small but fill in well. Needs close spacing for good show all season.
3	3	3	3	n	n	n	Large blooms but few in number. Fills in well, but plants remain small. Needs close spacing.
3	3	3	3	n	n	n	
3	2	2	2	n	n	n	Pale pink with dark pink centers. Medium-sized blooms. Nice display through most of season. A bit ragged at the end of the season.
2	2	2	2	n	n	n	Poor filler. Poor growth. Needs serious deadheading for good display. Needs close spacing.
3	3	3	3	n	n	n	Deep rose flower color with contrasting dark green foliage. Moderate branching and spread. Large blooms.
3	3	3	3	n	n	n	Abundant large blooms. Fills in well, excellent late into the season.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Incarvillea	Cheron	white	19	8	1.25	.75	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Jewels of Opar	Verde	hot pink	16.5	9	4x2.5	2x.125	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
18 Kale, Ornamental	Purple Pigeon F1		14	12	21	16											
Kale, Ornamental	Victoria Pigeon F1		16	12	19	17											
Kiss Me Over the Garden Gate																	
Koeleria	Blue Sprite		8	6													
Korean Mint	Lavender Haze	purple	20.5	9	6.5x1	1.25x.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Laurentia	Tristar Deep Blue	lavender	13.5	3.5	1.5	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Laurentia	Avant Garde Pink Hybrid™	pale lavender pink	21	2	1.25	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Lavatera	Variegated Mallow																
Linanthus*	French Hybrids	orange, pink, yellow, cream					*	⊗	⊗	⊗	⊗	⊗					
Linaria	Fantasy Mix	yellow, white, lavender, rose, pink	13	4	1.25x1	.25x.125	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Linaria	Northern Lights Improved Mix	yellow, white, lavender, purple	22.5	7	2.5x.75	1x.75	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Lion's Tail	Wild Dagga																
Livingstone Daisy	Harlequin Mix	pink, red, yellow, orange, cream, white with black centers	9.5	2	2.5	1.25			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	2	3	3	sl	n	n	Interesting busy plant with dissected foliage topped with tall spikes of creamy white trumpet shaped blooms. Flowers are sparse but nice. Would work well as a filler or in mass plantings.
2	3	1	2	n			Overwhelmed by neighboring plants in containers. Not worth the effort. Stems are wiry and flowers are nearly microscopic. Doesn't work even as a filler.
		4	4	n	n	n	Outstanding deep red foliage. Compact growth habit. Color intensifies in center.
		3	3		n	n	Tall, not compact form. Some plants upright, others floppy. Two plants with dead foliage halfway up the stalk. Does not fill in as well as others.
							No germination this year. Not planted in 2010.
2	2	3	3		n	n	Recommend for small mixed containers or as edging. Small blue-green balls of foliage topped with wheat-like plumes. Mounds have nice spikes of greenish flowers. Needs mass planting for best display.
2	3	3	3	y	y		Bushy upright stems, nice filler.
4	4	4	4	n	n	n	Big, bushy plant, excellent filler in containers and in ground beds. Mounding plants loaded with star-shaped blooms.
4	4	4	4	n	n	n	Bushy mounding plants covered with tiny stars and finely toothed leaves; excellent mounding cover for middle of beds and containers.
							Very poor germination this year. Not planted this year.
1	1	1	1				Masses of tiny stars are attractive up close, but the plants do not spread. Overall effect in a garden is poor. Little color, little spread. Flowers close up in cold rainy weather. Poor germination in 2010.
2	3	1	2	n	n	n	Small bushy plants with lots of color early. Good edging plant but dies out by mid August.
3	3	2	3	n	n	n	Short bushy plant covered with blooms early. Becomes tall, leggy late in the season. Unattractive seed stalks. Needs a lot of deadheading late.
							Very poor germination this year. Only 6 plants grown in garden.
4	4	4	4	n	n	n	Fills in well. Forms a carpet of shiny foliage. Blooms close during cool, cloudy weather. Needs some deadheading.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Lobelia	Aqua Blue with Eye		8	2	.25	.13	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Lobelia	Aqua Sky Blue	lavender	9	3	.25	.13	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Lupine	My Red Castle Russell	yellow	35.5	23	14.5x2.5	3.75x2				*	✿	✿	✿	✿	✿	✿	✿
Malabar Spinach*		purple	26	11	.125	.0625								*	✿	✿	✿
Marigold, African	Lemon Mum	yellow	30.5	19	3.75	1.5					✿	✿	✿	✿	✿	✿	✿
Marigold, African	Moonsong Deep Orange	orange	13	7	4.5	1.5				*	✿	✿	✿	✿	✿	✿	✿
Marigold, African	Morocco Mix F1 Hybrid	gold, orange, yellow	15	7	4.5	2				*	✿	✿	✿	✿	✿	✿	✿
Marigold, African	Mumsy Gold	yellow	20	12.5	3	1.5				*	✿	✿	✿	✿	✿	✿	✿
Marigold, African*	Sunspot Mix	yellow, gold, orange	21	4.5	3.5	2				*	✿	✿	✿	✿	✿	✿	✿
Marigold, African	Taishan Gold	gold	10	4	3.75	1.75					✿	✿	✿	✿	✿	✿	✿
Marigold, African	Taishan Orange	orange	12	5	3.5	1.75				*	✿	✿	✿	✿	✿	✿	✿
Marigold, African	Togo Yellow F1 Hybrid	yellow	9	4	3.25	1.25					✿	✿	✿	✿	✿	✿	✿
Marigold, French	Colossus	gold with mahogany markings	12	5.5	3.25	1.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Marigold, French*	Frances Hoffman's Choice	red with gold edges	43	12	2.5	1	*	*	✿	✿	✿	✿	✿	✿	✿	✿	✿
Marigold, French	Petite Harmony	gold and mahogany	16	4	2.25	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ✿ indicates 50% bloom, and ✿ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	3	3	3	n	n	n	
3	3	3	3	n	n	n	Mound former with nice color early. Died out by mid August.
3	4	4	4	n	y		Tall spikes or true red blooms. Very ornamental. Blooms late but single color is stunning.
1	1	1	1	n	n	n	Short vine, poor growth through season. Blooms just starting to open at the end of the season. Glossy rounded leaves are covered with spots, unknown cause.
4	3	4	4	sl	y	n	Tall upright stems loaded with bright solid color blooms from midseason onward. Some flowers are semi-doubles, others are singles; mix leads to ragged appearance of the beds. Needs deadheading late in the season especially after wet weather.
4	4	4	4	sl		n	All America Selections Winner 2010, recommended for its deep orange, non-fading flower color, large abundant blooms.
3	3	3	3	sl	n	n	Dwarf plant, fully double huge flower heads. Mostly yellow, one orange flowered plant. Needs some deadheading late in season.
4	4	4	4	y	n	n	Looks like a miniature football mum; gorgeous blooms with recurved petals. Holds up well in cold, rainy weather; some deadheading needed.
3	3	3	3	sl		n	Big blooms, great mix of colors. Needs some deadheading for best display.
3	4	3	3	y		n	Taishan Series chosen for the 2008 Olympic Games, Beijing, China. Shorter, more compact than other African marigolds. Well branched, fills in well, needs deadheading especially after cold wet weather.
3	3	2	3	sl		n	Taishan Series chosen for the 2008 Olympic Games, Beijing, China. Shorter, more compact than other African marigolds. Large balls of color, variable height. Needs significant deadheading in late season.
3	3	3	3	sl	n	n	Extra dwarf African marigold with fully double, huge, bright blooms on a tiny plant. Well-branched plant fills in well, flowers set off by deep green foliage.
3	3	3	3	sl	n	n	Short mounding plant covered with huge blooms. Uneven flower height leads to ragged display, but flowers are gorgeous. Some deadheading needed late in the season.
4	4	4	4	y		n	Large bushy plants with single petals edged in gold, fills in well. Loaded with blooms late in the season. No maintenance required.
3	3	3	3	y	n	n	Mounding bushy plant for front of beds. Attractive bicolor flowers; top petals, gold; bottom petals, mahogany. Variable height looks ragged in mass plantings.

Table 3. Results of tested annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August				
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	
Marigold, French*	Red Metamorph	red with gold centers	45.5	18	2.25	1	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Marigold, French	Solan	gold with mahogany markings	15.5	4	1.75	.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Marigold, French	Tashkent	red with gold centers	12.5	6	2	1.25	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Marigold, French	Golden Guardian	orange-yellow	37.25	7.5	1.75	.75	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Marigold, Mexican	Ursula	gold with mahogany markings in center	22.5	4	.75	.5		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Mask Flower*	Salmon Beauty	salmon	31.5	8	.25	.125	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Mask Flower*	Coral Beauty	coral	34.5	6	.25	.125		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Meadow Foam	Spanish Omelette Mixed	yellow and white	18	6	1	.75	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	*	*
Milk Thistle	Variegated	lavender	62	28	1.75	1			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*
Millet, Ornamental	Jade Princess																	
Morning Glory*	Carnevale di Venezia	white with blue, pink stripes	87	65	1.75	1				*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Morning Glory*	Grandpa Ott's	purple with rose markings	92	88	1.75	1			*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Mosquito Plant		rose	21	4	7x1.5	2x.125	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nasturtium*	Indian Chief	orange	26	4	2.5	1.5		*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nasturtium*	King Theodore	yellow	14.5	2.25	2.5	1.5	*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nasturtium*	Moongleam	gold	16.5	5	2.25	1.25		*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
4	4	4	4	n		n	Large-sized bushy plants loaded with rich deep red blooms and contrasting gold centers. Excellent show with no maintenance required. Very large in raised beds.
4	4	4	4	y		n	Very ornamental, big poof of gold with mahogany beneath. Rich colors. Lots of blooms.
3	3	3	3	y	n	n	Rich deep red blooms with contrasting gold centers. Most plants a uniform height, but a couple were double in size; makes for a ragged appearance.
4	4	4	4	y		n	Big, bushy, floppy plant; needs lots of space to spread and flop. Covered with small light orange blooms all season.
4	4	4	4	y	n	n	Compact mounds loaded with blooms all summer to frost. No maintenance necessary. Beautiful show.
3	3	3	3	n	n	n	Interesting filler plant with tiny salmon blooms. Not very showy. Best used as accent for other blooms.
3	3	3	3	n	n	n	Gorgeous tiny blooms but not a great display. Would work best as a filler with other plants.
3	3	3	3	sl	n	n	Interesting mixture of shiny yellow and white petals, some flowers one color, others bicolors. Flowered well through mid August then became quite sparse.
1	1	1	1	n			Monstrous plant; needs lots of room to spread in warm seasons. Grows poorly in cold seasons. Foliage is very unusual with white patterns between veins and lots of striking thorns on leaves and flowers. Topped with purple thistles. Floppy stems need staking.
							Very poor germination this year. Not planted this year.
3	3	3	3	n	n	n	Vines did not reach half way on the trellis in 2009 but grew better to the top of the trellis in 2010. Interesting striped petals. Few flowers in cool summers. Unusual marking differ from flower to flower as if painted individually.
4	4	4	4	n	n	n	Grew to the top of the trellis by mid August. Nice blooms, variable colors. Excellent growth this season. Deep purple color with red overtones is very striking.
3	3	3	3	n			Tall bushy plant covered with tiny pink flowers. Excellent filler especially for the Danthus Bouquet Rose.
4	4	4	4	y	n	n	Gorgeous dark green foliage and brilliant orange blooms. Great colorful flower display all season. Mounds spread and cover edges of the raised bed.
2	2	2	2	y	n	n	Tiny leaves, poor flowering on tiny bushes. Very poor show this season.
3	3	3	3	y	n	n	Outstanding golden color and clear light green foliage. Plenty of flowers held above the foliage. Best show this season.

z: 0=dead; 1=poor, dead, 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

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Nasturtium*	Night and Day	pale yellow, mahogany	11	2.25	2	1	*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nasturtium*	Tom Thumb Black Velvet	mahogany with yellow centers	11.5	7	2	1.25	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nasturtium, Dwarf*	Ladybird	gold with mahogany markings	13.5	2	2.25	1.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nemesia	KLM	blue and white	13.5	4.5	.25	.13	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nemesia	Danish Flag	red and white	17	4	.75	.125	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nicotiana*	Aztec Sweet Scent	white	37	19.5	10x6.5	2.25		*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nicotiana	Cranberry Isle	white, burgundy	32	19	10.5x6	2x4	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Nicotiana	Green Tears	green	66	22.5	18x4	5x3					*	⊗	⊗	⊗	⊗	⊗	⊗
Nicotiana	Louisiana Piroque	pink	56	40	.75	.5						*	⊗	⊗	⊗	⊗	⊗
Nicotiana, Australian	Suaveolens	white	28	16	11x3	1.75x2.25	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Opal Cups	Purple	light rose pink	57	14	3	1.25	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Osteospermum	Ballade Mix	rosy purple, lavender, white mix	23	12	2.5	1.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Oxypetalum	Heavenborn	blue	14	9	1	.5			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Painted Tongue	Scarlet	scarlet	18.5	9	3	1.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Painted Tongue	Kew Blue	blue	23	9	2.5	1.25	⊗	⊗	⊗	⊗	⊗	⊗	⊗				
Pansy	Atlas Needlepoint Mix	lavender, cream, yellow with yellow or purple face	14	2	2.5	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Pansy	Fizzy Lemonberry	yellow with purple face	17	4	2	1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. *= plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. **= plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
1	1	1	1	y	n	n	Mix of yellow and mahogany-flowered plants, mostly yellow. Yellows are more vigorous. Not a spectacular flower display. Grew poorly this year.
2	2	2	2	y	n	n	Small mounds, tiny leaves. May be good for containers, but they need close spacing for display in gardens.
3	3	3	3	y	n	n	Small mounding plant covered with small blooms. Very attractive markings. Lots of diseased, dwarf plants this season.
2	4	3	3	n	n	n	Gorgeous mounds early but many plants dead by mid August. Pretty bicolor blooms.
3	3	3	3	sl	n	n	Very ornamental bushy plant covered with eye-catching bicolor flowers. Needs serious deadheading midseason to keep blooming.
4	4	3	3	y	n	n	Outstanding, large-flowered clear white, trumpet-shaped blooms. Flowers are fragrant up close.
3	4	3	3	n			Bushy plant with upright and floppy stems. Blooms by midseason. Very attractive.
3	2	3	2	stinky	n	n	Tall, upright, bushy plant with green blooms. Not showy, ugly flowers and seed pods, smells bad.
4	4	4	4				Superb tall stems great for backgrounds. Loaded with pink trumpets late in the season. Interesting branching habit. Outstanding show. Attracts pollinators.
3	2.5	3	3	n	n	n	Tiny, trumpet-shaped white flowers, not as floriferous and flowers are tiny, not showy; would be good as a filler rather than mass plantings.
3	3	3	3	n	n	n	Tall, upright stems with blooms at the branch tips, mallow-type blooms. Stems are floppy and open. Best used as background or filler plant.
3	3	3	3	sl	n	n	Mounding, bushy plants covered with two-toned flowers. Excellent display all summer even in the cold weather.
2	4	2	3	sl	n	n	Tiny, star-shaped, true blue flowers on upright spikes, fuzzy leaves and interesting milkweed-shaped seedpods. Needs mass planting to show off the tiny flowers.
1	2	1	1	n	n	n	Some plants died shortly after planting. A few bloomed but did not become bushy or develop a great display. All plants gone by mid August.
2	3	2	2	n	n	n	Bushy plants with tall, upright stems covered with velvety blooms. Great through mid August but lots of dieback in late season.
4	4	4	4	y	n	n	Mix of lightly ruffled petals with two- and three-toned flowers, many edged in dark lavender. Needs lots of deadheading late in season especially after a rain.
4	4	3	4	y	n	n	Small blooms with ruffled edges, very ornamental purple faces with purple markings on yellow background. Jammed with flowers all summer. No maintenance.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Pansy	Matrix Mix Raspberry Sundae	rose	11.5	3	2.75	.75	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Matrix Orange Clear Improved	orange	11	3	2	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Matrix Rose	rose	13	4	2.5	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Matrix Rose Wing	rose, cream, yellow	7	3	2.75	2	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Matrix Yellow Clear	yellow	12	4.5	3	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Plentifall™ Lavender Blue	purple/ lavender bicolor	12	2	2	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Plentifall™ Purple wing	purple & lavender bicolor/ yellow centers	13	4	1.75	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Plentifall™ White	white with yellow centers	13	.5	2	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Queen Victoria Mix	lavender, bronze, purple with yellow face	16	5	2	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	XXL Golden	Gold	16	3	2.25	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	XXL White Blotch	white/purple	17	4.5	3.5	1.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	XXL Yellow Blotch	yellow, burgundy face	13.25	4	2.75	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pansy	Flambe Terracotta Shades	rose, yellow, cream, peach	14	3	2	.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: ✿ indicates just starting to bloom, ✿ indicates 50% bloom, and ✿ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
4	3	4	4	y	n	n	Clear rose with striking yellow centers. Nice show early in season but ragged later in August. Needs lots of deadheading.
3	3	3	3	y	n	n	Small mounds of gorgeous clear orange color nearly all season. Needs deadheading late in season.
3	3	3	3	y	n	n	Outstanding clear rose color with slightly different shades in each plant. Brilliant yellow centers are great accent. Bushy plants bloom reliably all summer. Needs deadheading especially after cool, wet weather.
3	3	3	3	y	n	n	Large flowers but ragged appearance late in season. Not as bushy as some pansies, and lots of plants died out by mid August.
3	3	3	3	y	n	n	Great mounds of clear yellow blooms. Eye-popping display all summer. Very little deadheading needed.
3	3	2	3	y	n	n	Small flowers, large mounds covered with blooms. Excellent color all season.
4	3	3	3	y	n	n	Attractive mounds of color all summer; interesting bicolor flowers.
3	3	3	3	sl	n	n	Mounding plants covered with small blooms, fills in well. Attractive display.
3	2	2	2	y	n	n	Mounding plant covered with small blooms with a variety of stripes, and colors. There were two black-flowered plants that looked odd in the mix.
4	4	4	4	sl	n	n	Brilliant clear yellow blooms on small mounds, great color all season. Needs some deadheading at end of season.
4	4	4	4	y	n	n	Small mounds of attractive blooms. Not as floriferous as other pansies.
3	3	2	3	y	n	n	Uniform plants loaded with blooms, attractive display nearly all season. Some deadheading needed especially after wet weather
3	3	3	3	y	n	n	Nice mounding plants loaded with slightly ruffled blooms all summer. Fills in well with great color mix.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Pansy	Flirty Skirts Burgundy	burgundy, purple, lavender	15	3	1.75	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Penstemon	True Blue																
Pepper, Ornamental	Calico	purple/ lavender bicolor	15.5	10	.25	.13					*	*	✿	✿	✿	✿	✿
Pepper, Ornamental	Purple Flash	lavender															
Petunia*	Carpet Pink Improved	pink	8	6			✿	✿	✿	✿	✿	✿	✿				
Petunia*	Dreams Fuchsia	hot pink with yellow throat	8	6	2.5	2	✿	✿	✿	✿	✿	✿	✿				
Petunia	Easy Wave® Burgundy Star F1 Hybrid	burgundy with white star	13	2	3	1	✿	✿	✿	✿	✿	✿	✿	✿	✿		
Petunia	Easy Wave® Neon Rose		12.5	4.5	3	1	✿	✿	✿	✿	✿	✿	✿	✿	✿		
Petunia	Easy Wave® Plum Vein F1 Hybrid	lavender with plum veins	15	5	2.25	1.75	✿	✿	✿	✿	✿	✿	✿				
Petunia	Easy Wave® Red Improved		12	4	2.75	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Petunia	Easy Wave® Violet F1 Hybrid	violet	15	4	3.5	2	✿	✿	✿	✿	✿	✿	✿	✿	✿		
Petunia	Easy Wave® White Improved F1 Hybrid	white	13	3	2.75	1	✿	✿	✿	✿	✿	✿	✿				
Petunia	Easy Wave® Mix Pink Marble	pink/cream	12	3	2.5	1.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	*	*
Petunia	Madness Plum Crazy Improved	lavender/ purple throat	15	4	2.75	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	*	*
Petunia	Madness Red Morn	red w/ white throat	16.5	2.5	2.75	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿		

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: ✿ indicates just starting to bloom, ✿ indicates 50% bloom, and ✿ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
4	4	4	4	sl	n	n	Abundant small flowers with ruffled edges. Beautiful range of purples from lavender to deep velvety burgundy. Very attractive.
1	1	1	1				Lots of foliage but no blooms. Poor display through the season. Died at planting in 2008.
3	2	3	3	n	n	n	Very ornamental two-toned blooms in giant mounds covering the plant all season. Top petals are purple, bottom are lavender.
1	1	1	1		n	n	Deep purple foliage. Not as bushy or ornamental as Black Pearl. No fruit this summer.
1	1	1	1	sl	n	n	Compact shape; mid-sized blooms; excellent branching; severe <i>Sclerotinia</i> rot in mid August.
1	1	1	1		n	n	Very large blooms in containers. Showy display all summer. Fills in well and complements other container plants.
2	1	2	1	y	n	n	First spreading petunia from seed. Climbed up the stems of the nearby dahlias. Susceptible to <i>Sclerotinia</i> rot through the season.
2	2	1	2	y	n	n	Succumbed to <i>Sclerotinia</i> .
2	2	1	2	sl	n	n	Star-shaped blooms. Interesting pattern on petals. Susceptible to <i>Sclerotinia</i> rot late in season.
2	2	2	2	y	n	n	Succumbed to <i>Sclerotinia</i> .
2	3	2	2	y	n	n	Outstanding spread in containers. Petals become spotted in cold wet weather. Brilliant display all season.
2	2	2	2	sl	n	n	Pure white color with less blushing than other white petunias. Mounding, dense habit. Severe <i>Sclerotinia</i> rot late in season even with fungicide treatment.
2	2	2	2	y	n	n	Small flowers but abundant; forms mounds of color that work well with other container plants; nice two-toned colors.
2	2	2	2	y	n	n	Excellent two-toned blooms with light lavender outer edges and deep plum throat. Abundant blooms that hold up well.
3	2	3	3	y	n	n	Nice carpet of bright red blooms; excellent cover in early summer; killed by <i>Sclerotinia</i> in late August; also recommended for containers.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Petunia	Madness Yellow	creamy yellow	12	8	2.5	2	✿	✿	✿	✿	✿	✿	✿	✿	✿		
Petunia	Opera Supreme Light Blue		10	4	2.75	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿		
Petunia	Opera Supreme Raspberry Ice		14	4	1.5	.75	✿	✿	✿	✿	✿	✿	✿				
Petunia	Shock Wave Pink Vein	light pink w/ violet rose throat and veins	17	2.5	2	.75	✿	✿	✿	✿	✿	✿	✿				
Petunia	Shock Wave™ Denim F1 Hybrid	dark blue-purple	15	3	2	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Petunia	Sophistica Antique Shades F1 Hybrid	pale rose with yellow throat	12	4	3.5	1.5	✿	✿	✿	✿	✿	✿	✿				
Petunia	Sophistica Blue Morn F1 Hybrid	blue edges with silver white throat	11	3	3.5	2	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Petunia	Sophistica Lime Bicolor F1 Hybrid	lime green/ yellow/rose	14.5	4	3.5	2	✿	✿	✿	✿	✿	✿	✿				
Petunia*	Wave® Purple Improved		18	18	3.5	2.5	✿	✿	✿	✿	✿	✿	✿			✿	✿
Petunia*	Lambada Salmon Veined F1 Hybrid	salmon pink, red markings	13	2.5	3.25	1.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Phacelia	Lavender Lass	pink with white centers	22	4	.5	.25	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Pheasant's Eye*		red	26	5	.5	.125	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: ✿ indicates just starting to bloom, ✿ indicates 50% bloom, and ✿ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
2	2	2	2	y	n	n	Nice two-toned yellow flowers, very attractive blooms. Needs some deadheading late in season.
2	2	2	2	y	n	n	Succumbed to <i>Sclerotinia</i> .
2	2	2	2	sl	n	n	Succumbed to <i>Sclerotinia</i> .
2	1	1	1	sl	n	n	Recommended for containers; mounded spreading plants; small-flowered plants; killed by <i>Sclerotinia</i> in mid August.
3	2	2	2	y	n	n	Mounding, spreading plant excellent in containers. Susceptible to <i>Sclerotinia</i> rot in ground beds. Poor germination in 2010.
2	2	2	2	y	n	n	Succumbed to <i>Sclerotinia</i> .
2	2	2	2	y	n	n	Flowers become more blue in cool greenhouse conditions, more silvery outdoors. Some <i>Sclerotinia</i> damage late in season even with fungicide. Not as floriferous as other petunias.
1	1	1	1	y	n	n	Odd patterns of lime green, yellow and rose blooms with unusual streaks and stripes. Overall effect is unpleasant. Needs deadheading late in season; better in containers than ground beds. Flower color will change based on light, heat, and age of flower.
2	2	2	2	y	n	n	Succumbed to <i>Sclerotinia</i> .
2	2	2	2	y	n	n	Interesting salmon pink with dark red lines and throat. Very ornamental and great show through early and midseason. Needs significant deadheading for best display late in the season.
4	4	2	3	sl	n	n	Slightly scented tiny blooms on small bushy plants. Great filler and complement to other blooms. Bruising of leaves can stain clothing and close contact may cause allergies in people with sensitive skin.
3	3	3	3	n	y	n	Brilliant bright red tiny blooms through midseason. Unusual green seedpods top feathery foliage for an interesting late-season effect even if it is all green; flowers are gorgeous but tiny. Poor germination in 2010 from 2009 seeds.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Phlox	Beauty Formula Mix	yellow, red, pink, burgundy, purple, white	8	4.75	1.25	.75	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Phlox, Annual	Isabellina	creamy white	25	4	2.25	1.25	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Plume Thistle	Pink & Rose Beauty	white, rose, pink	30	24	2.5	1.5				☼	☼	☼	☼	☼	☼	☼	☼
Poppy, California	Dairy Maid	gold, apricot shades	19	6	1.75	.75	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	
Poppy, California	Jelly Beans	orange, red, pink, yellow, gold, white	19.5	6	3	1.25		☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Poppy, California	Rosa Romantica	rose, cream	21	5.75	2.75	1	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Poppy, California	Sun Shades	yellow with orange centers	22.5	10	2.5	1.25	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Poppy, California Dwarf	Sundew	yellow	16	7	1	.5	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	
Poppy, Peony-flowered	Peony Mix	rose, lavender pink					☼	☼	☼	☼	☼	☼					
Portulaca	Tequila Mix	rose, orange, pink, yellow	6	2.5	1.75	.75		☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Red Orach	Red Plume																
Rudbeckia*	Cherry Brandy	cherry red, brown centers	30	21	4	2				☼	☼	☼	☼	☼	☼	☼	☼
Rudbeckia	Corona	gold with brown center	18.5	10	4.75	2.25	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Rudbeckia	Cappuccino	mahogany and gold	26.5	15	7.5	2.75			☼	☼	☼	☼	☼	☼	☼	☼	☼
Rudbeckia	Tiger Eye Gold	gold with brown centers	18	12	4.25	2	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼	

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: ☼ indicates just starting to bloom, ☼ indicates 50% bloom, and ☼ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
2	3	2	2	n			Overwhelmed by neighbors. Did not survive.
3	3	3	3	?	n	n	Attractive, creamy white flowers. Excellent filler this season. Great tall mounds of color all season.
3	3	3	3	n	n	n	Very tall thistle flowers on spiky stems; very upright growth habit; nice mix of colors; great background plant.
3	3	3	3	n	n	n	Semi-double blooms in mixed shades with bushy, feathery foliage. May be broadcast for late-season color as well as transplanted. Poor germination in 2010 from 2009 seeds.
3	3	3	4	sl	n	n	Fully double blooms, compact feathery foliage. Floppy stems leave a lot of open spaces late in the season. Very nice mix of flower colors. We have had showier cultivars. Poor germination in 2010 from 2009 seeds.
2	3	3	2	n	n	n	Poor germination. Only 12 planted into garden. Tiny flowers, multicolored in rose and cream. Attractive blooms, sparse growth. Many plants died by late August.
3	2	3	2	n	n	n	Poor germination this year.
2	2	2	2	n	n	n	Beautiful early in the season; blooms are sparse but very attractive. Died out early and was gone by mid August.
1	1	1	1		n	n	Overwhelmed by neighboring flowers. Poor show this season.
3	2	3	3	n	n	n	Low-growing ground cover with plenty of bright-colored blooms. Needs close spacing to fill in well. Needs warm site.
							Very poor germination this year. Not planted this year.
2	3	3	3	n	y	n	First red rudbeckia from seed. Nice blooms in midseason. Petals are brown-tipped as they age. Needs a lot of deadheading to remove unsightly flowers.
3	3	2	3	sl	y	n	Medium to small plant with extremely variable height. Older flowers fade and turn whitish. Not as attractive or showy as other rudbeckias.
4	4	4	4	sl	y	n	Very nice, large and medium-sized blooms with mostly mahogany flowers, some gold tipped with mahogany. Loaded with blooms from midseason onward. Holds its own in crowded beds.
3	2	3	3	n	y	n	First F1 hybrid rudbeckia. Long-lasting cut flower but stems are short. Lots of flowers, brilliant color.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August				
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	
Rudbeckia	Irish Spring	gold with green centers	34.5	14	5.5	2.75			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Salvia, Mealy-cup	Signum Blue	dark lavender	23	9	4x1.75	.75x.5	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Schizopetalon	Star Band	lavender white	14	8	.25	.25	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	⊗	⊗	⊗
Shoo Fly Plant		blue																
Showy Calamint*							⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Snapdragon	Bronze Dragon	purple and white bicolor	22	12	6.5x2	4.5x1.25				*	*	*	⊗	⊗	⊗	⊗	⊗	⊗
Snapdragon	Spring Giant Mixture	pink, red, orange, yellow, white	37	27	10x4	6x3	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Snapdragon	Twinny Peach F1	peach, yellow, light orange	14	4	5x3	1.25x1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	*
Snapdragon	Chantilly Deep Orange	dark orange	28	14	9.5x2.5	6x2.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Snow-on-the-Mountain		white								*	*	*	*	⊗	⊗			
Starflower	Ping Pong	white								*	⊗	⊗	⊗	⊗	⊗	⊗		
Statice	Compindi Rose	rose	28	6	2.5	.25	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Statice	Pale Blue Seeker		29.5	17	2.75	1					*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Stock	Sugar and Spice Mix	maroon, white, pink, lavender	12	7	4x1.5	1.5x.75	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Sunflower*	Amit	yellow with brown center	76	51	9	4.75								⊗	⊗	⊗	⊗	⊗
Sunflower*	Double Quick Orange F1 Hybrid	yellow	61	43	6.25	3.5					*	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
4	4	4	4	sl	y	n	Outstanding bushy plant loaded with blooms on upright stems. Very attractive green centers. Excellent cut flowers.
3	3	3	3	y			Excellent, tall spikes on medium-sized bushy plants. Great color from late June onward.
2	2	2	2		n	n	Floppy stems, tiny flowers. Not very showy. Best used as filler with larger-blooming flowers.
						y	Large plant with morning-glory-like blue flowers; will self sow in the garden, needs lots of space, holds up well in cold, wet weather.
1	1	1	1		n	n	Poor germination this year.
3	3	3	3	sl			Dark, almost black, eye-catching foliage on bushy, dwarf plants with two-toned pink/rose blooms. Floppy stems but well worth growing.
3	3	3	3	sl	y		Stocky upright stems excellent for cutting. Great mix of colors.
3	2	2	2	sl			A dwarf double-flowered, butterfly-type snapdragon with a blend of yellow/peach pastel colors. All America Selections Bedding Plant winner for 2010. Outstanding display. Does not seem to require the high maintenance of other dwarf snapdragons.
3	3	3	3	n	y	n	Open faced butterfly-type flowers with unusual orange-red color. Very attractive display this season. Did not grow well in 2008. Excellent cut flower.
1	1	1	1		y		Died out early in 2008 and 2009.
1	1	1	1				Overwhelmed by neighbors. Interesting seed heads in mid August. Some blooms through season, but not showy.
3	4	4	4	n	y	y	Bushy, productive, excellent blooms. Very good cut and dried flower.
3	4	4	4	n	y	y	Not pale blue as the name implies. Very attractive, bushy, upright, loaded with blooms. Excellent cut and dried flower.
1	3	2	2	y	n	n	Tall stems, often floppy, with clusters of very fragrant blooms. Does not fill in so needs close spacing. Best planted in mixed borders. Some double, mostly single blooms. Heavenly fragrance. Ugly seedheads in mid August.
3	3	3	3	y	y	n	Pollen free. One of Europe's top cut flower variety.
3	3	3	3	sl			Medium sized heads on medium-sized plants. Okay, but nothing spectacular.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August				
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	
Sunflower*	Fall Sun Hybrid	yellow with brown centers	63	51	9	3.5						*	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Mongolian Giant	yellow	87.5	60	11.5	6						⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Pastiche	pale yellow, mahogany centers	60	34	5.5	3						⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Ruby Eclipse	yellow/mahogany markings	63	40	2.5	4.75				⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	*
Sunflower*	Solar Eclipse F1 Hybrid	gold/mahogany	84	44	8	2.75				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Sparky	dusky yellow	90	55	3.5	6				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Terracotta	yellow with brown centers	52	38	5.5	4						*	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Velvet Queen		59	35	6	4.25				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower*	Zebulon	yellow	35	24	4	2.5					⊗	⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower, Cucumber-leaf	Pan	yellow with brown centers	54	34	5.5	2				*	*	⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower, Mexican	Goldfinger	gold	30	20	3.75	1.25						⊗	⊗	⊗	⊗	⊗	⊗	
Sunflower, Mexican	Morning Sun	yellow w/ orange markings	32.5	25	3.75	2.5						*	⊗	⊗	⊗	⊗	⊗	
Sweet Alyssum	Clear Crystals Lavender Shade	lavender	7.5	1.25	1.25	.75	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
Sweet Alyssum	Clear Crystals Purple Shade	purple, lavender	6.5	2	1	.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*	*	*	

w: If the plant was uniform in height, the height is recorded under max only. *= plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. **= plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
3	3	3	3	sl	y	n	One of Europe's top cut flowers. Pollen-free hybrid with butter-yellow petals around a dark disc. Can be grown at close spacing for smaller plants. Bloomed from midseason onward.
2	3	2	2	y			Not very giant in 2009 or 2008. Plants were short and head medium sized. Few blooms.
4	4	4	4	y			Masses of small blooms. Very ornamental. The mahogany overtones near the center of the flowers vary from plant to plant. Looks like a painting.
2	2	2	2	sl			Small flowers. Not the most attractive sunflower this year. Died out early.
3	3	3	3	y			Interesting flower pattern with gold petals and mahogany markings in the center. Multiple blooms beginning in midseason.
4	3	4	4	y			Thin petals mostly a dusky yellow. Interesting pin-cushion-type centers. Many blooms per stem but bloomed late.
3	2	3	3	sl			Small heads, multiple branches. Some very large heads, others small.
2	3	3	2	n			Small blooms, not very showy.
2	2	2	2	n	y	n	Short, stalky stems with medium-sized heads. All mature seed by mid August. Hold up well although summer flower show is in midseason.
3	3	3	3	sl			Medium sized sunflower loaded with small blooms all summer with big buttons of chocolate in the center. Very attractive bushy plants.
3	3	4	3	n			Attractive brilliant blooms on bushy, soft-hairy stems. More compact with smaller flowers than older cultivars but not as striking. Needs a lot of deadheading late in the season.
3	4	3	3	n	n	n	Tall plants with creamy yellow blooms. Very attractive. More upright stems but not as striking color as other tithonias. Great background plant.
2	2	2	2	y	n	n	Low-growing ground cover full of blooms all summer. Some flower size and plant size differences with different flower colors.
3	2	2	2	y	n	n	Good mix of deep rose shades in this mounding ground cover.

Table 3. Results of tested annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August				
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	
Sweet Alyssum	Clear Crystals White	white	7	1	.75	.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	
Sweet Annie*	Scentless																	
Sweet Pea*	Fantasia Formula Mix	red, lavender, purple, pink	16	5.5	2.5x2	1x1.5										✿	✿	✿
Sweet Pea*	Mammoth Choice Mix	red, lavender, white, pink, rose	99	37	1.7x2.5	1.5x1										✿	✿	✿
Sweet Pea*	Old Spice	red, white, pink, lavender	86	28	3.5x2.5	1x1										✿	✿	✿
Sweet Pea*	Prized Strain Mix	white, pink, lavender, red	86	46	3.5x2.5	1.25x1										✿	✿	✿
Sweet Pea*	Unwin's Striped Mix	white, pink, lavender, red	76	41	5x2.5	1x2										✿	✿	✿
Tricolor Chrysanthemum	Court Jester	rose, white, red, yellow with mahogany centers	28.5	8.5	2.5	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Venus' Looking Glass			36	8.5	.25	.125					✿	✿	✿	✿				
Verbena, Garden	Tusacany Pink Picotee	pink and white	8	5	2.75	2					✿	✿	✿	✿	✿	✿		
Viola	Rain Blue and Purple	lavender, light blue	12.5	6	1.25	.75	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Viola	Viva Mix	purple/ yellow bicolor	13	2.5	.75	.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Viola	Amber Kiss Angel	yellow with rose overtones	11.5	3	1.5	1	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿
Viola	Endurio Sky Blue Martien	lavender blue	8	2	1	.5	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿	✿

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: ✿ indicates just starting to bloom, ✿ indicates 50% bloom, and ✿ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
4	4	3	4	y	n	n	Nice low-growing ground cover; fragrant; some die out in early September.
							Poor germination this year. Not planted.
2	3	3	3	y	y	n	Loaded with mostly lavender blooms. Very fragrant.
4	4	4	4	y	y	n	Not as tall as other sweet peas but nice-sized blooms, great fragrance.
2	3	3	2	y	y	n	Shortest sweet pea this season. Nice combination of colors, but few flowers; small flower size.
4	4	4	4	y	y	n	Short stature but very nice color and flower size; great fragrance. The very best sweet pea this year.
3	3	3	3	y	y	n	Some flowers with speckles and stripes. Very nice color and flower size. Great fragrance.
4	4	4	4	sl	n	n	Brilliant multi-colored blooms on floppy stems. Very colorful all season. Needs deadheading late in season.
2	2	2	2	n			
1	2.5	2	2	n	n	n	Loaded with pink and white bicolor flowers through mid season. Requires significant deadheading late in the season.
4	3	3	3	sl	n	n	Thick mounds covered with blooms all summer. Some plants with all-white blooms, some light lavender. Excellent growth all summer.
4	3	3	3	sl	n	n	A petite viola loaded with classic tricolor Johnny Jump-Up type blooms in yellow, violet, and lavender. Nice display all season with no maintenance. Other violas are more mounding and floriferous.
3	3	3	3	y	n	n	Small blooms with unique two-toned colors; mostly yellow centers with rosy edges and purple whiskers; petal edges are frilly; plant is loaded with blooms; great display, no maintenance this summer.
2	2	2	2	y	n	n	Tiny flowers on tiny mounding bushes. Needs closer spacing than other violas.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Viscaria	Ruby Flax	red	18.5	5	1.5	.75			*	⊗	⊗	⊗	⊗	⊗	⊗	*	*
Wallflower, Aegean	Charity Rose Red	blood red	11.25	5	.75	.5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
White Lace Flower		white					⊗	⊗	⊗	⊗	⊗	⊗	*	*	*		
Zinnia	Zahara® Double Fire	scarlet	17	10	2.5	1.25		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Burpee Rose Giant Cactus	pink	33.5	18	4	2		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Canary Bird	yellow	28	6	3.75	2.5		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Distance Scarlet	scarlet, orange	17.5	9	2.75	1.5	*		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Double Zahara Cherry	cherry red	14.25	5.5	2.75	.75		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Double Zahara Fire	orange	17.5	8	3	1		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Envy Double	blood red	24	16	3.5	1.75	*	*	*	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Giant Cactus	pink, orange, yellow, rose, white	27	15	5.25	1.25			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Gift	dark orange	31	15	2	1.75	*	⊗	⊗	⊗	⊗	⊗	⊗			⊗	⊗
Zinnia, Garden	Gold Medal Mix	pink, rose, orange	35.25	13.5	4	1.5		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Miss Willmott	pink	34.5	16.5	4.5	2			*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Polar Bear	creamy white	24.5	14	4.5	3				*	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Zinnia, Garden	Scabiosaflora Mix	rose, orange, yellow, white	11.5	3	2.5	1	*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	*
Zinnia, Garden	Zahara Coral Rose	dark pink	17	6	2.75	1.25		*	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, ⊗ indicates 50% bloom, and ⊗ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
2	3.5	2	2	n			Grew well in the 2008 cool season, but died out early in 2009. Best planted in mix with other flowers as a filler.
1	1	3	1	sl			Poor ornamental. Individual flower stalks went to seed early and needed constant deadheading. Flower stalks were short and short-lived.
1	1	1	1				Overwhelmed by cosmos nearby. No blooms or plants visible in mid August.
2	3	2	3	n			Mounding plants loaded with medium-sized blooms. Good early but dies out by mid August.
3	4	4	4	n			Nice recurved petals, upright, tall. Some sclerotinia late in season
2	3	3	2	n	n	n	Grew poorly in cold, rainy 2008, but excellent this year. Tall, upright stems with creamy yellow blooms. Excellent cut flower.
2	3	2	3	sl			Medium-sized plants loaded with medium and small blooms. Most flowers are scarlet, some medium to light orange. Needs a lot of deadheading to maintain ornamental appeal; very ragged appearance. There are a lot better zinnias.
3	3	3	3	n			Nice double blooms. Plants loaded with blooms early, but lots of dieback in late August.
3	3	3	3	n			Two-toned blooms. Very attractive double blooms. Short, upright clumps, eyepopping color. Some sclerotinia late in season.
2	2	1	2	n			Nice blooms with unusual color through mid season. Died out in mid August.
3	2	3	2	sl			Feathery blooms with quill-like pointy petals. Excellent blooms early in season, but died out early from sclerotinia.
2	2	2	2	n			Medium-sized, upright stems with small to medium flowers. Very ragged appearance with lots of brown edges on petals. Not the showiest zinnia.
3	2	3	2	sl	y	n	Tall mix, mostly pinks and rose. The pink colors look washed out. Needs deadheading late in season.
3	3	3	3	sl			Tall, upright stems. Nice mix of colors. Older flowers look washed out. Great stem length for cut flowers.
2	3	2	2	n			Small to medium blooms. Attractive creamy white color shows up well against dark green foliage. Needs a lot of deadheading to remove brown, rotting flowers late in season.
3	2	2	2	n			Tiny flowers. Poor showing this season. Very ragged appearance. Needs significant deadheading.
3	3	3	3	n			Very nice clear dark pink color. Plants are sparse fillers in cool seasons and susceptible to <i>Sclerotinia</i> cottony rot. Responds well to fungicide treatment. Gorgeous flower color; flowers fade with aging to have a two-toned effect.

z: 0=dead; 1=poor, dead, 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 annual flower cultivars for 2010.

common name	cultivar	Bloom color	Height (in) ^w		Flower Size (in) ^x		June			July				August			
			max	min	max	min	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4	wk 1	wk 2	wk 3	wk 4
Zinnia, Garden*	Zahara Fire	orange-red	20	6	3	1.5			☼	☼	☼	☼	☼	☼	☼	☼	☼
Zinnia, Garden	Zahara Scarlet	scarlet	25	14	3	1.25		*	☼	☼	☼	☼	☼	☼	☼	☼	☼
Zinnia, Garden	Zahara Starlight Rose	white and rose bicolor	18.5	8	2.5	1.75		☼	☼	☼	☼	☼	☼	☼	☼	☼	☼
Zinnia, Garden	Zahara White	white	17	10	3.25	1.25			*	☼	☼	☼	☼	☼	☼	☼	☼
Zinnia, Garden	Zahara Yellow	yellow	21.75	7	3.75	1.25	*	☼	☼	☼	☼	☼	☼	☼	☼	☼	☼

42

w: If the plant was uniform in height, the height is recorded under max only. *= plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. **= plants grown in raised beds.

y: * indicates just starting to bloom, ☼ indicates 50% bloom, and ☼ indicates full bloom.

Flower		Foliage	Overall				
quantity	quality			fragrance	cutting	drying	
4	4	4	4	n			Hybrid between <i>Zinnia angustifolia</i> and <i>Z. violacea</i> . Variable height and flower color. Appears ragged from a distance. Needs a lot more deadheading than similar cultivars.
2	2	2	2	sl	n	n	Short mounding plants covered with two sizes of blooms: large flowers are deep red-orange, smaller flowers are lighter orange. Interesting two-toned effect. Succumbed to <i>Sclerotinia</i> rot in 2008 but responded well to fungicide in 2009.
3	3	3	3	n			2010 All America Selections Bedding Plant Award Winner. The first zinnia with white and rose bicolor blooms. Variable plant height makes for ragged display. Not the most floriferous zinnia; needed a lot of deadheading mid season onward. Flowers mostly white, very little rose.
3	3	2	3	n	n	n	Large blooms on small mounding plants did not fill in as well as other zinnias of this type. Many plants died in late season from <i>Sclerotinia</i> rot. Some deadheading needed late in season.
3	3	3	3	n	n	n	Nice small, creamy yellow blooms with brighter yellow center. Bushy, fills in well. Needs deadheading. Susceptible to <i>Sclerotinia</i> rot.

Table 4. Results on cultivars that completed three years' trials in 2010

Common Name	Cultivar	Ave. Overall rating ^z	Ave. foliage rating ^z	Ave. Min Ht	Ave. Max Ht	Ave. Min Fl size ^x	Ave. Max Fl size ^x	Ave. Flower quality ^z	Ave. Flower quantity ^z
Alyssum, Sweet	Clear Crystals Lavender Shade	2.0	2.3	1.8	7.8	0.8	1.3	2.3	2.3
Alyssum, Sweet	Clear Crystals Purple Shade	2.3	2.3	1.4	6.8	0.6	1.1	2.3	2.7
Amaranth, Feathered	Autumn Palette	1.7	3.0	20.7	32.0	8x3.6	13.75x3.25	3.0	3.0
Amberboa		2.7	2.7	10.8	30.3	0.8	2.2	2.8	3.0
Aster, China	Matsumoto Red Stripe	3.7	3.7	10.0	25.3	1.3	2.8	3.7	3.7
Bacopa	Blutopia	2.3	2.3	2.0	5.0	0.2	0.5	2.3	2.0
Bidens	Gold Star	3.2	2.7	14.5	34.5	0.8	1.6	2.5	2.7
Blue Spiderwort	Sleeping Beauty	3.0	3.3	9.8	26.2	0.6	1.6	3.3	3.3
Candytuft		2.2	2.5	5.3	15.7	0.9	1.7	2.5	2.5
Chrysanthemum, Tricolor	Court Jester	3.3	4.0	7.7	28.0	0.7	2.6	4.0	4.0
Cleome	Colour Fountain Mix	2.0	2.0	21.0	44.2	2.9	4.5	2.0	2.0
Cosmos	Picotee	3.0	2.8	16.3	36.7	1.5	2.9	2.8	2.8
Cosmos	Psyche Mix	2.7	2.7	20.3	35.7	1.9	4.5	2.7	2.7
Cosmos	Purity	2.3	3.0	25.7	34.3	2.0	3.3	3.0	3.0

z: 0=dead; 1=poor, dead, 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. Results on cultivars that completed three years' trials in 2010, continued

Common Name	Cultivar	Ave. Overall rating ^z	Ave. foliage rating ^z	Ave. Min Ht	Ave. Max Ht	Ave. Min Fl size ^x	Ave. Max Fl size ^x	Ave. Flower quality ^z	Ave. Flower quantity ^z
Cosmos	Sensation Mix	2.5	2.8	26.3	36.3	1.8	3.4	2.8	2.8
Cosmos	Sonata Pink Blush	2.7	2.8	17.0	28.3	1.9	4.2	2.8	2.8
Dahlia	Jayleen G.	3.7	3.7	44.3	51.3	3.3	5.3	3.7	3.7
Feverfew	Crown White	3.0	2.3	10.2	19.5	0.3	0.5	2.3	2.7
Foxglove	Camelot Rose	3.7	3.3	30.3	50.0	10x4	25.5x4.5	3.7	3.7
Grass, Great Quaking		3.3	3.7	9.2	25.8	0.1	0.3	3.7	3.7
Marigold, African	Mumsey Gold	3.3	3.7	9.2	17.3	1.2	2.9	3.7	3.7
Marigold, French	Golden Guardian	3.3	3.0	6.0	33.8	1.0	1.8	3.0	3.7
Marigold, French	Petite Harmony	2.5	2.8	3.7	11.0	0.8	2.1	2.8	2.8
Morning Glory	Grandpa Ott's	4.0	4.0	45.3	86.3	0.7	2.0	4.0	4.0
Nasturtium	Indian Chief	4.0	4.0	4.3	20.7	1.3	2.8	4.0	4.0
Nasturtium	King Theodore	2.0	2.3	3.4	15.7	1.3	2.3	2.3	2.7
Nasturtium	Night and Day	2.0	2.0	3.4	14.3	1.0	2.2	2.0	2.0
Nasturtium, Dwarf	Ladybird	2.7	3.0	3.7	12.2	1.3	2.3	3.0	3.0
Nicotiana	Aztec Sweet Scent	3.3	3.3	14.2	39.0	2.9x3.25	7.3x5.8	3.7	3.7
Nicotiana	Green Tears	2.5	3.5	22.2	69.0	7x2.4	25.7x6.3	3.2	3.5
Nicotiana, Australian	Suaveolens	2.5	2.8	13.7	33.7	1.1x1.75	5x4.7	2.7	2.8
Oxypetalum	Heavenborn	3.0	3.3	10.0	14.7	0.8	2.2	4.0	3.0
Pansy	Atlas Needlepoint Mix	2.7	3.0	3.2	12.2	0.7	2.4	3.0	3.0
Pansy	Fizzy Lemonberry	3.2	3.2	4.0	15.3	1.1	2.2	3.5	3.5
Pansy	Flambe Terracotta Shades	3.0	2.5	3.7	13.2	1.1	2.3	2.5	2.5
Pansy	Flirty Skirts Burgundy	4.0	3.8	3.7	12.8	1.2	1.7	3.8	3.8
Pansy	Matrix Rose	3.0	3.3	4.0	12.8	1.3	2.3	3.3	3.3
Pansy	Matrix Rose Wing	2.0	2.0	3.3	9.0	1.3	2.6	2.0	2.0
Pepper, Ornamental	Calico	2.7	2.3	8.7	14.8	0.1	0.2	2.0	2.3
Petunia	Dreams Fuchsia	2.3	2.7	5.7	14.0	1.4	2.7	2.7	2.7
Petunia	Easy Wave® Mix Pink Marble	2.7	3.0	6.3	14.2	1.4	3.6	3.0	3.0
Petunia	Lambada Salmon Veined F1 Hybrid	3.0	3.0	5.5	14.5	2.0	3.2	2.7	2.7

w: If the plant was uniform in height, the height is recorded under max only. * = plants grown in containers or hanging baskets, limited data was collected on plant height, flower size and flowering dates.

x: If flower size was uniform, size is recorded under max only; sizes with an x (ex.: 12x3) indicates a spike flower type with the height x width. ** = plants grown in raised beds.

y: * indicates just starting to bloom, 50% indicates 50% bloom, and 100% indicates full bloom.

Table 4. Results on cultivars that completed three years' trials in 2010, continued

Common Name	Cultivar	Ave. Overall rating ^z	Ave. foliage rating ^z	Ave. Min Ht	Ave. Max Ht	Ave. Min Fl size ^x	Ave. Max Fl size ^x	Ave. Flower quality ^z	Ave. Flower quantity ^z
Petunia	Madness Yellow	2.7	3.0	6.7	15.7	1.2	2.5	3.0	3.0
Petunia	Shock Wave Pink Vein	2.7	2.7	2.8	14.5	0.9	2.3	2.7	3.0
Sea Holly, Annual		2.0	2.0	18.6	32.5	6.5x1.25	13x2	0.3	0.3
Snapdragon	Chantilly Deep Orange	2.3	2.7	10.0	26.0	4.75x2	10.8x2.8	2.7	2.7
Snapdragon	Spring Giant Mix	3.0	3.0	18.0	31.8	4.2x2.2	9x3.5	3.0	3.0
Stock	Sugar & Spice Mix	2.0	2.0	5.5	16.0	1.6x1.3	8.5x1.9	2.3	1.7
Sunflower	Double Quick Orange F1 Hybrid	3.0	3.0	47.3	61.3	3.8	6.1	3.0	3.0
Sunflower	Mongolian Giant	2.3	3.0	71.3	87.2	6.0	12.7	3.3	3.0
Sunflower	Solar Eclipse F1 Hybrid	3.3	3.7	38.7	69.0	2.9	7.8	3.7	3.7
Sunflower	Sparky	3.3	3.0	47.7	69.7	3.2	4.6	2.7	3.0
Sunflower	Velvet Queen	2.0	2.7	99.3	54.3	3.8	6.6	2.7	2.3
Sunflower	Zebulon	2.3	2.3	25.0	34.0	4.5	6.2	2.3	2.3
Sunflower, Mexican	Goldfinger	2.7	3.0	17.0	32.5	1.5	3.3	2.7	2.7
Sunflower, Mexican	Morning Sun	3.0	3.0	23.8	44.8	2.2	4.3	3.3	3.0
Viola	Rain Blue and Purple	3.3	3.3	5.2	14.5	0.7	1.3	3.3	3.7
Viscaria	Ruby Flax	1.7	1.7	4.8	17.3	0.7	1.6	2.2	1.7
Zinnia, Garden	Polar Bear	1.8	1.3	14.0	27.0	2.1	3.4	2.0	1.3
Zinnia, Garden	Zahara Coral Rose	3.0	3.7	4.3	16.5	1.1	2.6	3.7	3.7
Zinnia, Garden	Zahara Scarlet	3.0	2.3	8.5	17.0	1.4	2.8	2.3	2.3
Zinnia, Garden	Zahara White	3.2	2.7	7.5	14.5	1.5	2.8	2.7	2.7
Zinnia, Garden	Zahara Yellow	2.7	2.7	7.0	18.3	1.1	3.0	2.7	2.7

z: 0=dead; 1=poor, dead, 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

Seed and Plant Sources

The list does not include all possible seed and plant sources. The list reflects sources from which the Georgeson Botanical Garden has received seeds/plants. No endorsement of companies should be implied by those listed, nor criticism intended of those not listed.

46 ALASKA SOURCES

Ann's Greenhouses, 780 Sheep Creek Rd, Fairbanks AK 99709, www.anns-greenhouses.com

Denali Seed, PO Box 111425, Anchorage AK 99511, www.denaliseed.com

Driftwood Nurseries, 7.2 Mile Chena Hot Springs Rd PO Box 10462, Fairbanks AK 99710

Hawk's Farm & Garden Center, 12 Mile Richardson Hwy PO Box 55759, North Pole AK 99705

Holm Town Nursery, PO Box 71565, Fairbanks AK 99707, www.holmtownnursery.com

Plant Kingdom, 620 Fiedeler Rd, Fairbanks AK 99709, www.theplantkingdom.com

Risse Greenhouses, 981 Risse Rd, Fairbanks AK 99712, www.rissegreenhouse.com

Washburn Farm Nursery, PO Box 823, Palmer AK 99645

Woodland Farms, Mile 311 Parks Hwy, Nenana AK 99760, www.woodlandfarmsalaska.com

COMMERCIAL WHOLESALE AND RESEARCH SOURCES (SEEDS AND PLANTS NOT SOLD DIRECTLY TO THE PUBLIC)

All American Selections, 1311 Butterfield Rd Suite 310, Downer's Grove IL 60515, www.all-americaselections.org

American Takii Inc., 301 Natividad Rd, Salinas, CA 93906, www.takii.com

Ball Horticultural Co., PO Box 335, West Chicago IL 60185 (wholesale only), www.ballseed.com

Goldsmith, PO Box 1349, Gilroy CA 95021, www.goldsmithseeds.com

Kieft Pro Seeds Holland, PO Box 63 1606 ZH, Venhuizen Holland, www.kieftseeds.com

Lawyer Nursery, 950 Hwy 200 W, Plains MT 59859, www.lawyernursery.com

Lilly Miller, 1340 Treat Blvd, Suite 650, Walnut Creek, CA 94597, www.lillymiller.com

PanAmerican Seeds, PO Box 438, West Chicago IL 60186, www.panamseed.com

USDA Plant Introduction Stations- NC7, Ames IA, www.ars-grin.gov/ars/MidWest/Ames

GARDEN SOCIETIES AND ORGANIZATIONS WITH SEED EXCHANGES AND SALES FOR MEMBERS ONLY

Alaska Native Plant Society, PO Box 141613, Anchorage AK 99514, www.aknps.org

American Horticultural Society, PO Box 6118, Alexandria VA 22308, www.ahs.org

North American Rock Garden Society, PO Box 67, Millwood NY 10546, www.nargs.org

Hardy Fern Foundation, Box 60034, Richmond Beach WA 98160, www.hardyferns.org

New England Wildflower Society, 180 Hemenway Rd, Framingham MA 01701, www.newfs.org

RETAIL SOURCES OF PLANTS/SEEDS

Agway, Inc. Seed Plant, 1225 Zeager Rd, Elizabethtown PA 17022

Alberta Nurseries & Seeds Ltd., PO Box 20, Bowden AB TOM 0K0 Canada, www.gardenersweb.ca

Applewood Seed Co., 5380 Vivian St, Arvada CO 80002, www.applewoodseed.com

Baker Creek Heirloom Seeds, 2278 Baker Creek Rd, Mansfield, MO 65704, www.rareseeds.com

B&D Lilies, PO Box 2007, Port Townsend WA 98368, www.bdlilies.com

Bear Creek Nursery, PO Box 411, Northport WA 99157, www.BearCreekNursery.com

Big Dipper Farm, 26130 SE Green Valley Rd, Black Diamond, SW 98010, www.bigdipperfarm.com

Bluebird Nursery, Inc., PO Box 460, Clarkson NE 68629, www.bluebirdnursery.com

Carolina Seeds, PO Box 2658 Hwy 105 Bypass, Boone NC 28607, www.carolinaseeds.com

Clause Seed, 100 Breen Rd, San Juan Bautista CA 95045, www.clausetezier.com

Connell's Dahlias, 10616 Waller Rd E, Tacoma WA 98446, www.connells-dahlias.com

Cook's Garden, PO Box 535, Londonderry VT 05148, www.cooksgarden.com

Crosman's Seeds, 511 West Commercial St, PO Box 110, East Rochester, NY 14445, www.crosmanseed.com

Daehnfeldt, PO Box 947, Albany OR 97321, www.daehnfeldt.com

Dutch Gardens, Inc., PO Box 2037, Lakewood NJ 08701, www.dutchgardens.nl

FW. Schumacher Co., Inc., 36 Spring Hill Rd, Sandwich MA 02563, www.treeshrubseed.com

Farmer Seed & Nursery Co., 818 NW 4th St, Fairbault MN 55021, www.farmerseed.com

Fedco Seeds, PO Box 520, Waterville, ME 04903, www.fedcoseeds.com

Ferry-Morse Seed Co., PO Box 4938, Modesto CA 95352, www.ferry-morse.com

Fred C. Gloeckner & Co., Inc., 15 E 26th St, New York NY 10010, www.fredgloeckner.com
Gardens North, 5984 Third Line Rd N, North Gower ON K0A 2TO Canada, www.gardensnorth.com
Germania Seed Co., 5978 N Northwest Hwy, Chicago IL 60631, www.germaniaseed.com
Gilbert H. Wild & Sons, P O Box 338, Sarcoux MO 64862, www.gilberthwild.com
H.G. German Seeds, Inc., PO Box 398, Smethport PA 16749
Harris Seeds, PO Box 24966, Rochester NY 14624-0966, www.harrisseed.com
Henry Field's Seed and Nursery Co., 415 N Burnett, Shenandoah IA 51602, www.HenryFields.com
High Country Gardens, 2902 Rufina St, Santa Fe, NM 87507, www.highcountrygardens.com
Home Harvest Seeds, 3807 Bank St, Baltimore MD 21224, www.homeharvestseeds.com
Horizon Herbs, PO Box 69, Williams, OR 97544, www.horizonherbs.com
Irish Eyes & Garden City Seeds, PO Box 307, Thorp WA 98946, www.irish-eyes.com
J.L. Hudson, PO Box 1058H, Redwood City CA 94064, www.jlhudsonseeds.net
Jackson & Perkins, PO Box 1028, Medford OR 97501, www.jacksonandperkins.com
John Scheepers Kitchen Garden Seeds, PO Box 638, Bantam CT 06750, www.kitchengardenseeds.com
Johnny's Selected Seeds, 1 Foss Hill Rd, Albion ME 044910, www.johnnyseeds.com
Jung Quality Seeds, 335 S High St, Randolph WI 53957, www.jungseed.com
K. Van Bourgondien & Sons, Inc., PO Box 1000, Babylon NY 11702, www.dutchbulbs.com
McClure & Zimmerman, PO Box 368, Friesland WI 53935, www.mzbulb.com
Milk Ranch Specialty Potatoes LLC, 20094 Hwy 149, Powderhorn CO 81243, www.milkranch.com
Mulberry Creek Herb Farm, 3312 Bogart Rd, Huron, OH 44839, www.mulberrycreek.com
Nichols Garden Nursery, 1190 N Pacific Hwy, Albany OR 97321, www.gardennursery.com
Nourse Farms, Inc., Box 485 RFD, South Deerfield MA 01373, www.noursefarms.com
Park Seeds, 2 Parkton Ave, Greenwood SC 29649, www.parkseed.com
Peter de Jager Bulb Co., PO Box 2010, So Hamilton MA 01982
Planteck Biotechnologies, 801, Route 344, PO Box 3158, L'Assomption QC J5W 4M9, Canada, www.planteck.com
Reimer Seeds, PO Box 236, Mount Holly, NC 28120, www.reimerseeds.com
Richters, 357 Highway 47, Goodwood ON LOC 1A0 Canada, www.richters.com
R.H. Shumway's Seeds, 334 W. Stoud St, Randolph WI 53956-1274, www.rhshumway.com
Royal Sluis, Inc., 1293 Harkins Rd, Salinas CA 93901
Rupp Seeds, Inc., 17919 County Rd B, Wauseon OH 43567, www.ruppseeds.com
Sand Mountain Herbs, 321 County Rd 18, Fyffe, AL 35971, www.sandmountainherbs.com

Seed Savers Exchange, 3094 N Winn Rd, Decorah, IA 52101, www.seedsavers.org
Seeds of Change, PO Box 15700, Santa Fe NM 87501, www.seedsofchange.com
Seeds of Distinction, PO Box 86 Station A, Toronto ON M9C 4V2 Canada, www.seedsofdistinction.com
Seedway, Inc., PO Box 250, Hall NY 14463, www.seedway.com
Select Seeds, 180 Stickney Hill Rd, Union CT 06076, www.selectseeds.com
Seymour's Selected Seeds, PO Box 1346, Randolph WI 53956, www.seymourseeduk.com
Shepherd's Garden Seeds, 30 Irene St, Torrington CT 06790, www.shepherdseeds.com
Song Sparrow Perennial Farm, 13101 East Rye Rd, Avalon WI 53505, www.songsparrow.com
Stokes Seeds, PO Box 548, Buffalo NY 14240, www.stokeseeds.com
Summer Hill Seeds, 13505 Hamilton Pike Rd, Whittington, IL 62897, summerhillseeds.com
Swan Island Dahlias, PO Box 700, Canby, OR 97013, www.dahlias.com
T & T Seeds, Ltd., PO Box 1710, Winnipeg MB R3C 3P6 Canada, www.ttseeds.mb.ca
Territorial Seed Co., PO Box 157, Cottage Grove OR 97424, www.territorial-seed.com
Thompson & Morgan Seed Co., Box 1308, Jackson NJ, www.thompson-morgan.com
Twilley Seeds, 121 Gary Rd, Hodges SC 29653, www.twilleyseed.com
Valley Nursery, Box 4845, Helena MT 59604
Van Bloem USA, Inc., 500 Pendley Industrial Park, Cumming GA 30130
Vaughan's Seed Co., 5300 Katrine Ave, Downers Grove IL 60515
Vermont Bean Seed Co., Garden Ln, Fair Haven VT 05743, www.vermontbean.com
Vesey's Seeds, Ltd., PO Box 9000, Calais ME 04619-6102, www.veseys.com
W. Atlee Burpee & Co., 300 Park Ave, Warminster PA 18991, www.burpee.com
Wauhara Gardens, N 5491 5th Dr, Plainfield WI 54966
West Coast Seeds, 3925 64 St, Delta BC V4K3N2 Canada, www.westcoastseeds.com
Whatcom Seed Co., PO Box 40700, Eugene, OR 97404, seedrack.com
White Flower Farm, PO Box 50, Litchfield CT 06759, www.whiteflowerfarm.com
Wildseed, Inc., PO Box 308, Eagle Lake TX 77434



Master Gardeners planting annual flower trials in 2010 at the Georgeson Botanical Garden.

About the Agricultural and Forestry Experiment Station

The federal Hatch Act of 1887 authorized establishment of agricultural experiment stations in the U.S. and its territories to provide science-based research information to farmers. The Morrill Act established the land-grant colleges in 1862. The Alaska Agricultural Experiment Station was not originally part of the Alaska land-grant college system. In 1898, the station was established in Sitka, also the site of Alaska's first experiment farm. Subsequent branches were opened at Kodiak, Kenai, Rampart, Copper Center, Fairbanks, and Matanuska. The latter two remain as the Fairbanks Experiment Farm and the Matanuska Experiment Farm. The USDA established the Fairbanks experiment station in 1906 on a site that in 1915 provided land for a college. In 1931, the experiment station was transferred from federal ownership to the college, and in 1935 the college was renamed the University of Alaska. Early experiment station researchers developed adapted cultivars of grains, grasses, potatoes, and berries, and introduced many vegetable cultivars appropriate to Alaska. Animal and poultry management was also important. This work continues, as does research in soils and revegetation, forest ecology and management, and rural and economic development. As the state faces new challenges in agriculture and resource management, the Agricultural and Forestry Experiment Station continues to bring state-of-the-art research information to the people of Alaska.

Without our dedicated volunteers, continued growth and success of the Georgeson Botanical Garden would not be possible.

A big thank you to our 2010 volunteers!

Walt Babula, August-Michelle Abukasis, Carolyn Adams, Jen Allison-Keim, Jean Baker, Victor Bell, Doug Blankensop, Kirsten Brune, Theresia Buccholz, Holly Buzby, Christy Conway, Olga Cook, Alina Cushing, Liz Dobbins, Kathy Ellingson, Sheila Finch, Joe Gauges, Amy Glover, Mary Guzy, Pam Guzy, Kate Hedstrom, Vicki Hill, Joanne Klumb, Ted Kegler, Ruiz Anne Kegler, Katie Kokx, Nancy Kilgore, Tammy Langley, Sherry Lewis, Susan Lightbody, Carol Ann Lovejoy, Taylor Maida, Gail Mayo, Carol Meyer, Hal Meyer, Marsh Munsell, Alice Orlich, Andree Porchet, Mary Parsons, Emily Reiter, Ann Roberts, Shaundra Robinson, Ruiz Anne Rozell, Barb Rondine, Linda Schandelmeier, Lisa Schumacher, Kathy Seim, Libby Silberling, Melody Springer, Steve Sterner, Iris Sutton, Ann Swift, Amy Turner, Eileen Van Wyhe, Maggie Waite, Laura Weingartner, Christine Wilda, Suzanne Williams, Cameron Willingham, Susie Zimmerman, the GBGS Board consisting of Donna Dinsmore, Melody Springer, Curtis Thorgaard, Mike Salzman, Barbara Johnson, Lisa Drew and the many others who made the Garden Tea a success.

*To join these valued people,
call Katie DiCristina at 474-6921
or e-mail kmdicristina@alaska.edu*

Special thanks to our partners and volunteers who support the Garden with seeds and other donations:

All America Selections + American Takii + Ball Seed
Denali Seed + Driftwood Nurseries + PanAmerican Seeds
+ USDA Plant Introduction Stations, NC7,
Iowa State University +