

2004 Cultivar Trials of Bedding Plants

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Introduction

The Plant Sciences Department at NDSU conducted performance trials on over 300 annual bedding plants during the 2004 growing season. The main research garden is located in Fargo, on the west edge of campus. Trial gardens are also located at the research extension centers in Dickinson and Williston, ND. Official entries (usually 150-200) are grown at all three locations while an additional 150-200 cultivars are also grown at the Fargo site.

The display gardens are for educational and research purposes. They are open to the public throughout the growing season and guided tours are available upon request.

The trial garden is an official display garden of both All-America Selections and the American Hemerocallis Society. Currently, there are over 1100 cultivars of daylilies in the collection with plans for more. The majority of the daylily cultivars are considered historic (pre-1970). There are also over 300 miscellaneous perennials and ornamental grasses in the garden. An extensive iris collection, courtesy of the Art Jensen family, was also added in 2003.

New Fargo trial gardens are currently being constructed on the corner of 18th street and 12th avenue north. The move into the new beds should be completed by fall 2005.

Culture

Plants were seeded in the horticulture and forestry greenhouses on the NDSU campus from January through April, 2004. When at the proper stage, seedlings were transplanted into cell packs containing a peat-based growing medium. Exceptions to this were geraniums and New Guinea impatiens from Fischer USA, Inc. which were received as rooted cuttings and finished in the greenhouses.

Twelve plants of official entries and mixed cultivars, and 6 plants of all other cultivars were planted into the Fargo plots May 28 – June 8, 2004. Six plants of each cultivar were planted at Dickinson on May 25, and in Williston on May 26. Plants were watered in with Sterns Miracle-Gro® (15-30-15)¹ water soluble fertilizer at all three locations.

Overhead irrigation was applied as needed in Fargo. Dickinson had both overhead and drip irrigation while Williston had drip irrigation only.

Weeding was done by hand at all three locations. Razor® and Regalkade® were also used at the Fargo location for weed control.

Site Information

Fargo

The main trial garden is located in Fargo on the west side of the NDSU campus off of 18th street north. The soil is heavy clay and irrigation is applied with overhead sprinklers when needed. The beds are in full sunlight so shade has been provided with shade cloth draped over conduit forms.

¹ Disclaimer – Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by NDSU or the North Dakota Agriculture Experiment Station is implied.

The biggest problem during the summer of 2004 was the weather. It was either wet and cool or dry and cool. The wet conditions allowed verticillium to show up in a number of plants but no major insect problems were noted.

The Fargo site received 3+” of rain over Memorial Day weekend prior to planting. The heavy clay soil became saturated. In order to stay close to schedule, plants were planted into the mud. Planting ended about a week past normal due to the wet conditions. As seen on Table 1, temperatures were below normal all summer while precipitation was up in May and July and down in June and August. Table 1 shows weather data for Fargo.

Table 1. 2004 and 1971-2000 May-August Average Temperature and Precipitation for Fargo, ND.²

	Average Temperature (°F)		Precipitation (inches)	
	2004	1971-2000	2004	Average 1971-2000
May	52.4	57.4	5.73	2.61
June	62.2	66	.92	3.5
July	67.9	70.6	3.81	2.88
August	62.2	69	1.78	2.52

Dickinson

The Dickinson trial garden is located at the research extension center on the west side of State Street. The soil here is a lighter, sandier soil than Fargo and the weather tends to be drier. Shade plants are grown in raised beds under natural shade.

Unlike Fargo, Dickinson was drier than normal all summer except for July. Temperatures were below normal except for July as well. A light frost on June 18 did not cause any damage but the cold June weather slowed plant growth considerably. Table 2 shows weather data for Dickinson.

Table 2. 2004 and 1971-2000 May-August Average Temperature and Precipitation for Dickinson, ND.

	Average Temperature (°F)		Precipitation (inches)	
	2004	1971-2000	2004	Average 1971-2000
May	51.2	53.4	.95	2.24
June	59.8	62.4	.46	3.57
July	69.6	68.1	2.18	2.20
August	64.5	67.3	.63	1.65

Williston

The Williston trial garden is located at the research extension center on Highway 2 west of Williston. The soil here is also lighter than Fargo. Drip irrigation is used for supplemental watering and shade plants are grown in the natural shade of pine trees

Precipitation was above normal in May but below normal June-August. Temperatures were well below normal and cold June temperatures drastically slowed the plants; very few had good ratings for the July evaluations. Table 3 shows weather data for Williston.

Table 3. 2004 and 1971-2000 May-August Average Temperature and Precipitation for Williston, ND.

	Average Temperature (°F)		Precipitation (inches)	
	2004	1971-2000	2004	Average 1971-2000
May	50.2	57.1	2.74	2.09
June	58.8	65.7	1.34	2.72
July	67.9	71.1	1.87	2.45
August	63.7	70.2	1.14	1.63

² Temperature and precipitation data are from NDAWN and the National Climatic Data Center.

All-America Selections

The NDSU trial gardens are an official display garden of All-America Selections (AAS). AAS was founded in 1932 as a way for home gardeners to learn about new and improved varieties of flowers and vegetables. The red, white and blue AAS logo found on seed packets, in catalogs and in garden articles usually indicates superior cultivars that have been tested in a variety of locations across the United States and Canada. AAS winners for 2005 are:

Catharanthus roseus (Vinca) 'First Kiss Blueberry'

Gaillardia aristata 'Arizona Sun'

Zinnia elegans 'Magellan Coral'

Evaluations

Plants were evaluated twice over the growing season for height, spread, vigor, uniformity and overall appearance. In Fargo the evaluations took place July 26-28 and September 8-10. Because planting was delayed in Fargo, evaluations were also done about a week later than normal. In Dickinson plants were evaluated July 7 and August 30. Williston plants were evaluated July 8 and August 31.

Field Days

Field days in Dickinson and Williston were held July 7 and 8, respectively, in conjunction with field days at the station. Field days in Fargo were not held in 2004 because the research plots are in the process of being relocated.

Acknowledgements

Thanks go to the official supporters of the 2004 trial gardens: All-America Selections; Ball Seed Company; Ernst Benary of America, Inc.; Fischer USA, Inc.; Grimes Seeds and Plants; and PanAmerican Seed. The support of these companies is greatly appreciated and we hope results from our efforts are beneficial in their research for new and improved cultivars.

Thanks also to Kris Ringwall and the staff at the Dickinson research extension center; and Lorna Bradbury and the staff at the Williston Research Extension Center. The bedding plant trial evaluation program would not be possible without the help of these talented and dedicated people.

Cover photos are courtesy All-America Selections and include (l to r): *Zinnia elegans* 'Magellan Coral' (AAS 2005); *Rudbeckia* 'Prairie Sun' (AAS 2003) and *Dianthus chinensis* 'Corona Cherry Magic' (AAS 2003).

2004 STAR PERFORMERS

Star performers received *, **, or *** during both evaluation times as seen on the 'Height and Spread Measurements' Table on pages 8-17. Plants are listed in alphabetical order.

Fargo	Dickinson	Williston
<i>Ageratum</i> 'Neptune Blue'	<i>Begonia</i> 'Baby Wing Pink'	<i>Impatiens hawkkeri</i> 'Sonic Scarlet Blush'
<i>Antirrhinum</i> 'Night and Day'	<i>Ipomoea nil</i> 'Sunrise Serenade'	<i>Petunia</i> 'Dreams Sky Blue'
<i>Asarhina</i> 'Color Mix'	<i>Pelargonium</i> 'Graffiti Pink'	
<i>Begonia</i> 'Baby Wing Pink'	<i>Petunia</i> 'Dreams Burgundy Picotee'	
<i>Begonia</i> 'Harmony Pink Improved'	<i>Petunia</i> 'Dreams Sky Blue'	
<i>Begonia</i> 'Harmony Scarlet Improved'	<i>Plectranthus</i> 'Silver Shield'	
<i>Begonia</i> 'Harmony White Improved'		
<i>Begonia</i> 'Olympia Sprint Deep Pink'		
<i>Begonia</i> 'Olympia Sprint Mix Improved'		
<i>Begonia</i> 'Olympia Sprint Pink'		
<i>Begonia</i> 'Partyfun'		
<i>Begonia</i> 'Prelude Pink Improved'		
<i>Begonia</i> 'Prelude Scarlet Improved'		
<i>Begonia</i> 'Prelude White Improved'		
<i>Begonia</i> 'Vodka'		
<i>Cleome</i> 'Sparkler Blush'		
<i>Dianthus barbatus</i> 'Dynasty Rose Lace'		
<i>D. chinensis</i> 'Melody Pink'		
<i>Eragrostis</i> 'Wind Dancer'		
<i>Eustoma</i> 'Echo Yellow'		
<i>Gaillardia</i> 'Sundance Bicolor'		
<i>Impatiens hawkkeri</i> 'Super Sonic Salmon'		
<i>Ipomoea batata</i> 'Blackie'		
<i>Lablab</i> (Hyacinth Bean)		
<i>Pelargonium</i> 'Graffiti Salmon Rose'		
<i>Pelargonium</i> 'Holiday Purple Dream'		
<i>Pelargonium</i> 'Rocky Mtn. Lavender'		
<i>Pelargonium</i> 'Tutti Frutti'		
<i>Pennisetum</i> (Fountain Grass)		
<i>Petunia</i> 'Dreams Burgundy Picotee'		
<i>Petunia</i> 'Dreams Sky Blue'		
<i>Petunia</i> 'Tidal Wave Purple'		
<i>Petunia</i> 'Tidal Wave Silver'		
<i>Plectranthus</i> 'Silver Shield'		
<i>Rudbeckia</i> 'Autumn Colors'		
<i>Rudbeckia</i> 'Prairie Sun'		
<i>Salvia farinacea</i> 'Reference'		
<i>S. splendens</i> 'Salvatore'		
<i>Spilanthes</i> 'Peek-A-Boo'		

Height and Spread Measurements

NDSU Bedding Plant Trials-2004

Note - An * preceding a cultivar measurement indicates it was done well during that evaluation time but lacking uniformity in height or bloom; ** indicates a top performer with good bloom, vigor and uniformity; *** indicates outstanding performance. All measurements are in inches except where noted and () indicates missing data. Shaded areas show that cultivars weren't tested at that location. Seed source list is on the last page of the report.

Genus species 'Cultivar' (seed source)	Fargo			Dickinson			Williston		
	July 26 Height Spread	September 8, 9 Height Spread	July 7 Height Spread	August 30 Height Spread	July 8 Height Spread	August 31 Height Spread			
<i>Abutilon x hybridum</i> 'Bella Apricot' (PAS)	3-4" 1-2"	4-6" 3-4"							
<i>A. x hybridum</i> 'Bella Pink' (PAS)	4-7 3-7	5-8 4-12							
<i>A. x hybridum</i> 'Bella Salmon' (PAS)	2-5 2-6	4-6 5-10							
<i>Agastache cana</i> 'Heather Queen' (Pk)	5-8 5-8	16-26 10-16							
<i>A. foeniculum</i> 'Blue Spike' (Pk)	7-11 5-9	10-22 6-14							
<i>A. foeniculum</i> 'Golden Jubilee' (AAS '03)	6-7 4-7	10-19 7-12	2-3" 1-3"	10-12" 10-12"	1-4" 1"	13-16" 10-13"			
<i>A. rupestris</i> (Pk)	10-16 7-11	*19-26 *13-18							
<i>A. scrophulariaefolia</i> 'Garden Leader Blush' (Gri)	8-15 6-11	13-24 9-11	8-10 4-6	13-16 13-16	9-11 3-6	30-32 14-16			
<i>Ageratum houstonianum</i> 'Azure Pearl' (WG)	2-5 3-6	3-6 6-9							
<i>A. houstonianum</i> 'Blue Horizon' (Pk)	*7-16 *6-12	14-19 11-18							
<i>A. houstonianum</i> 'Leilani Blue' (GS)	3-5 3-7	3-5 3-7							
<i>A. houstonianum</i> 'Neptune Blue' (GS)	*4-11 *6-13	*9-15 *12-22							
<i>A. houstonianum</i> 'Pearl Royal' (PAS)	2-4 2-6	3-4 7-12							
<i>A. houstonianum</i> 'Silver Pearl' (WG)	5-8 7-11	6-8 8-12							
<i>Alcea rosea</i> 'Queenly Purple' (AAS '04)	2-12 2-18	13-23 16-20	10-12 11-12	17-22 17-22	2-7 3-9	18-26 16-22			
<i>Alternanthera dentata</i> 'Purple Knight' (PAS)	2-5 3-6	4 14							
<i>Amaranthus tricolor</i> 'Aurora' (Pk)	3-5 3-8	6-15 9-22							
<i>A. tricolor</i> 'Illumination' (Pk)	2-4 4-6	6 9							
<i>A. tricolor</i> 'Perfecta' (Pk)	3-7 4-7	died							
<i>Antirrhinum majus</i> (Snapdragons) 'Cascadia Mix' (Pk)	4-6 9-13	4-7 9-16							
<i>A. majus</i> 'Night and Day' (Pk)	**10-12 **4-9	*12-14 *10-15							
<i>A. majus</i> 'LaBella Rose' (GS)	9-11 7-8	11-14 9-14							
<i>A. majus</i> 'Rose Ribbon' (GS)	12-13 4-6	**11-17 **10-13							
<i>A. majus</i> 'Rose Bells' (GS)	4-6 5-8	5-6 5-8							
<i>A. majus</i> 'Red Bells' (GS)	4-5 4-8	5-7 7-9							
<i>A. majus</i> 'Purple Bells' (GS)	*4-6 *5-8	5-6 6-9							
<i>Arctotis venusta</i> (African Daisy) (Pk)	**20-24 **18-20	30-34 22-26							
<i>Asarina scandens</i> 'Color Mix' (Pk)	*12-36 *6-8	**to 48 ** ()							
<i>A. x wislizenis</i> 'Red Dragon' (Pk)	6 6	6-8 10-12							
<i>Asclepias curassavica</i> 'Red Butterfly' (Pk)	6-16 8-12	**20-22 **18-22							
<i>A. curassavica</i> 'Silky Gold' (Pk)	15-19 6-12	**24-26 **16-18							
<i>A. curassavica</i> 'Silky Red' (Pk)	14-17 9-14	**24-26 **18-21							
<i>A. incarnata</i> 'Cinderella' (Pk)	16-24 6-12	25-36 18-20							

Genus species 'Cultivar' (seed source)	Fargo			Dickinson			Williston			
	July 26	September 8, 9	July 7	August 30	July 8	August 31	Height	Spread	Height	Spread
<i>A. tuberosa</i> 'Gay Butterflies' (Pk)	4-10	3-11	8-13							
<i>Begonia x hybrida</i> 'Baby Wing Pink' (PAS)	**12-15"	**8-15"	**8-12"							
<i>B. x hybrida</i> 'Dragon Wing Pink' (Pk)	**9-10	7-12	7-11							
<i>B. x semperflorens-cultorum</i> 'Harmony Pink Improved' (Ball)	**6-8	**6-9	**6-9							
<i>B. x semperflorens-cultorum</i> 'Harmony Scarlet Improved' (Ball)	**7-8	**7-10	**7-10							
<i>B. x semperflorens-cultorum</i> 'Harmony White Improved' (Ball)	**6-7	**6-8	**6-10							
<i>B. x semperflorens-cultorum</i> 'Olympia Sprint Deep Pink' (Ben)	**5-7	**5-7	**5-8							
<i>B. x semperflorens-cultorum</i> 'Olympia Sprint Mix Improved' (Ben)	**5-9	**6-11	**5-7							
<i>B. x semperflorens-cultorum</i> 'Olympia Sprint Pink' (Ben)	**5-7	**6-8	**9-11							
<i>B. x semperflorens-cultorum</i> 'Partyfun' (Ben)	7-9	**10-12	**10-12							
<i>B. x semperflorens-cultorum</i> 'Prelude Pink Improved' (Ball)	**6-8	**5-7	**7-9							
<i>B. x semperflorens-cultorum</i> 'Prelude Scarlet Improved' (Ball)	**6-9	**6-8	**6-7							
<i>B. x semperflorens-cultorum</i> 'Prelude White Improved' (Ball)	**5-7	**6-7	**8-10							
<i>B. x semperflorens-cultorum</i> 'Queen Pink' (Da)	7-9	7-9	8-11							
<i>B. x semperflorens-cultorum</i> 'Queen Red' (Da)	6-8	6-8	7-10							
<i>B. x semperflorens-cultorum</i> 'Vodka' (Ben)	**5-8	**7-11	**8-11							
<i>B. x tuberhybrida</i> 'Nonstop Deep Red' (Ben)	5-8	6-9	7-11							
<i>B. x tuberhybrida</i> 'Pin Up Flame' (AAS '99)	5-7	7-9	7-12							
<i>Calendula officinalis</i> 'Prince Mix' (Pk)	**17-24	**9-12	19-24	12-17						
<i>C. officinalis</i> 'Touch of Red' (Pk)	1-15	8-14	11-14	12-16						
<i>Capsicum annuum</i> 'Chilly Chili' (AAS '02)	5-6	4-7	**6-8	**5-9						
<i>Catharanthus roseus</i> (Vinca) 'Cooler Lavender Halo' (PAS)	4-6	3-5	6-10	4-9						
<i>C. roseus</i> 'Cooler Orchid Deep' (PAS)	3-5	3-5	3-5	4-7						
<i>C. roseus</i> 'Cooler Rose Hot' (PAS)	5-6	5-7	4-8	6-10						
<i>C. roseus</i> 'First Kiss Apricot' (Ben)	2-5	2-6	3-8	4-8						
<i>C. roseus</i> 'First Kiss Blueberry' (Ben, AAS '05)	3-6	3-6	3-8	3-8						
<i>C. roseus</i> 'First Kiss Blush Improved' (Ben)	3-5	3-6	3-8	4-9						
<i>C. roseus</i> 'First Kiss Coral' (Ben)	4-6	4-6	3-8	4-8						
<i>C. roseus</i> 'First Kiss Icy Pink' (Ben)	4-6	5-7	7-9	7-10						
<i>C. roseus</i> 'First Kiss Pink' (Ben)	3-5	3-6	5-7	5-7						
<i>C. roseus</i> 'First Kiss Rose' (Ben)	1-5	2-5	6-9	6-9						
<i>C. roseus</i> 'First Kiss Sunrise' (Ben)	3-5	3-5	4-8	5-8						
<i>C. roseus</i> 'Jato Dark Red' (AAS '03)	3-6	3-6	6-8	6-8						
<i>C. roseus</i> 'Jato Scarlet Eye' (AAS '02)	3-8	3-7	5-11	5-11						
<i>C. roseus</i> 'Stardust Orchid' (AAS '00)	3-6	4-6	5-9	4-10						
<i>Celosia cristata</i> 'Amigo Mix' (Ben)	2-5	3-7	3-5	2-6						
<i>C. cristata</i> 'Prestige Scarlet' (AAS '97)	4-8	3-7	7-10	8-13						
<i>C. plumosa</i> 'Castle Mix' (Pk)	4-6	2-4	4-6	3-5						

Genus species 'Cultivar' (seed source)	Fargo				Dickinson				Williston			
	July 26 Height Spread	September 8, 9 Height Spread	July 7 Height Spread	August 30 Height Spread	July 8 Height Spread	August 31 Height Spread						
<i>C. plumosa</i> 'Fresh Look Red' (AAS '04)	7-9 3-9	9-12 5-14	3-5 3-6	13-16 12-14	1 1	6-10 5-10						
<i>C. plumosa</i> 'Fresh Look Yellow' (AAS '04)	5-9 2-6	8-11 3-10	4-7 5-7	11-16 12-14	1 1	6-9 6-8						
<i>Celosia plumosa</i> 'New Look' (Ben)	6-8" 3-7"	8-11" 4-9"										
<i>C. spicata</i> 'Kosmo Purple Red' (Pk)	3-4 4-6	2-4 3-4										
<i>C. spicata</i> 'Purple Flamingo' (Pk)	4-12 3-9	12-24 6-20										
<i>Cleome hasslerana</i> 'Queen Mix' (Pk)	**22-25 *9-15	32-38 32-36										
<i>C. spinosa</i> 'Sparkler Blush' (AAS '02)	**18-22 **9-12	*25-30 *30-34	*12-14" *8-10"	25-36" 25-36"	11-16" 6-8"	26-28" 20-24"						
<i>C. spinosa</i> 'Sparkler Lavender' (Pk)	14-17 5-15	*22-26 *20-26										
<i>C. spinosa</i> 'Sparkler Rose' (Pk)	11-16 2-12	16-20 8-22										
<i>C. spinosa</i> 'Sparkler White' (Pk)	13-20 4-12	22-26 18-22										
<i>Coleus x blumei</i> 'Giant Exhibition - Copper Queen' (Pk)	3-7 3-8	6-12 6-9										
<i>C. x blumei</i> 'Giant Exhibition - Lighthouse' (Pk)	3-10 3-9	6-15 8-13										
<i>C. x blumei</i> 'Giant Exhibition - Palisandra' (Pk)	5-9 6-8	7-13 8-14										
<i>C. x blumei</i> 'Giant Exhibition - Scarlet II' (Pk)	6-9 5-9	8-17 6-12										
<i>C. x blumei</i> 'Giant Exhibition - Tartan' (Pk)	5-8 6-9	8-15 8-11										
<i>Cosmos sulphureus</i> 'Cosmic Orange' (AAS '00)	7-12 7-12	7-13 7-17	4-7 4-7	5-9 5-9	1-6 3-6	*11-13 *13-15						
<i>C. sulphureus</i> 'Cosmic Red' (Ben)	7-12 7-12	9-11 10-14	3-6 2-6	8-11 8-11	1 1	9-12 10-14						
<i>Delphinium grandiflorum</i> 'Summer Stars' (Ben)	3-7 3-6	6-15 4-12	4-6 4-9	3-8 3-8	1-6 1-5	*8-12 *6-12						
<i>Dianthus barbatus</i> 'Amazon Neon Cherry' (PAS)	7-17 5-9	7-17 8-12										
<i>D. barbatus</i> 'Amazon Neon Purple' (PAS)	7-14 5-7	8-14 4-12										
<i>D. barbatus</i> 'Amazon Rose Magic' (PAS)	7-16 5-8	7-14 6-12										
<i>D. barbatus</i> 'Dynasty Purple' (Ball)	8-11 6-10	10-12 9-12										
<i>D. barbatus</i> 'Dynasty Red' (Ball)	7-11 4-9	7-12 7-13										
<i>D. barbatus</i> 'Dynasty Rose Lace' (Ball)	*7-14 *6-12	*11-13 *10-14	*10-11 *9-10	9-14 13-19	11-12 9-12	*14-16 *15-17						
<i>D. barbatus</i> 'Dynasty White Blush' (Ball)	5-8 5-8	6-10 6-12										
<i>D. barbatus</i> 'So Bright' (Gri)	1-2 1-4	2-4 4-7	2-3 4-8	8-12 8-12	2-3 4-5	4-5 7-8						
<i>D. caryophyllus</i> 'Can Can Scarlet' (AAS '03)	6-12 5-9	11-13 9-11	10-13 7-10	*13-15 *9-12	10-12 7-9	*14-16 *12-16						
<i>D. chinensis</i> 'Corona Cherry Magic' (AAS '03)	3-6 2-5	3-5 3-5	4-5 5-7	6-8 9-11	5 6-7	7-8 9-11						
<i>D. chinensis</i> 'Melody Pink' (AAS '00)	*10-15 *6-8	**11-14 **8-12	12-16 7-9	**18-20 **14-20	12-14 9-11	**15-19 **17-19						
<i>D. chinensis</i> 'Panda Mix' (Ball)	3-5 5-7	4-6 5-8										
<i>D. chinensis</i> 'Valentine' (PAS)	2-3 2-3	2-3 2-4										
<i>Dichondra argentea</i> 'Silver Falls' (PAS)	1 10-12	**1 **to 24										
<i>D. repens</i> 'Emerald Falls' (PAS)	1-2 2-3	1-3 2-9										
<i>Eragrostis elliotii</i> 'Wind Dancer' (PAS)	**12-24 **15-20	**36-40 **32-40	3-16 15-22	**30-36 **36-40	15-20 12-18	**30-32 **40						
<i>Eucalyptus cinerea</i> (Pk)	12-16 4-5	16-18 6-9										
<i>E. citriodora</i> (Lemon Eucalyptus) (Pk)	5-6 4-7	8-10 6-9										
<i>Eustoma grandiflorum</i> (Lisianthus) 'Echo Blue' (Pk)	**13-18 **6-9	14-19 8-10										
<i>E. grandiflorum</i> 'Echo Yellow' (Pk)	*13-15 *6-8	*14-16 *11-14										

Genus species 'Cultivar' (seed source)	Fargo			Dickinson			Williston			
	July 26	September 8, 9	July 7	August 30	July 8	August 31	Height	Spread	Height	Spread
<i>E. grandiflorum</i> 'Forever Blue' (AAS '01)	6-8 6-8	*8-9 *9-12	*3-9 *3-8	8-10 9-12	6-8 4-7	*8-12 *9-11				
<i>E. grandiflorum</i> 'Forever White' (AAS '03)	4-7 4-8	7-9 8-10								
<i>E. grandiflorum</i> 'Red Glass' (Pk)	9-13 5-7	11-17 7-9								
<i>Eustoma grandiflorum</i> 'Sapphire Blue Chip' (Pk)	4-6" 5-7"	6-10" 7-13"								
<i>E. grandiflorum</i> 'Sapphire Pink Rim' (Pk)	3-5 4-7	6-9 9-11								
<i>Gaillardia aristata</i> 'Arizona Sun' (Ben, AAS '05)	5-7 5-11	7-12 6-12	4-6" 6-11"	***8-11" ***12-14"	5-7" 7-9"	***11" ***12-16"				
<i>G. pulchella</i> 'Sundance Bicolor' (AAS '03)	**6-12 **7-20	*16-18 *22-24	8-10 10-16	**17-20 **29-33	4-7 4-10	**17-18 ** ()				
<i>G. pulchella</i> 'Yellow Queen' (Pk)	5-12 9-12	21-30 15-17								
<i>Gazania rigens</i> 'Daybreak Orange Cream' (PAS)	*6-9 *8-10	6-10 10-14								
<i>G. rigens</i> 'Kiss Mixture' (GS)	**4-6 **8-9	5-7 8-11								
<i>Gomphrena globosa</i> 'Mix' (Pk)	5-10 3-8	9-22 11-18								
<i>G. globosa</i> 'Purple Gomp' (Gri)	3-11 1-8	*11-22 *13-24	3-5 2-5	**16-18 **15-17	1 1	8-12 8-12				
<i>G. haagsana</i> 'Strawberry Fields' (Pk)	2-10 2-7	6-12 4-10								
<i>Gypsophila muralis</i> 'Garden Bride' (Da)	3-6 6-9	4-6 8-13								
<i>G. muralis</i> 'Gypsy' (AAS '97)	2-3 3-5	3-5 4-7								
<i>G. muralis</i> 'Gypsy Deep Rose' (AAS '04)	2-4 4-7	2-4 4-8	2-3 3-6	**4-5 **9-10	2-4 4-7	4-6 8-10				
<i>Helianthus annuus</i> 'Ring of Fire' (AAS '01)	26-36 15-18	30-36 20-22	12-20 10-17	40-48 18-36	13-18 10-15	30-36 16-19				
<i>H. annuus</i> 'Soraya' (AAS '00)	24-42 12-15	36-45 18-32	10-13 9-11	48-52 15-36	12-20 8-15	40-52 18-22				
<i>Helichrysum bracteatum</i> 'Bright Bikini Mix' (Pk)	7-15 8-11	**12-17 **10-14								
<i>H. monstrosum</i> 'Mix' (Pk)	22-30 10-14	30-45 12-15								
<i>Impatiens hawkerii</i> 'Sonic Amethyst' (FG)	5-6 5-7	4-9 6-10	**4-7 **8-10	4-5 4	3-5 4-8	died				
<i>I. hawkerii</i> 'Sonic Burgundy' (FG)	5-6 5-6	4-7 6-9	5-6 8-9	5 5-6	4-6 6-9	4-7 6-9				
<i>I. hawkerii</i> 'Sonic Cattleya' (FG)	4-5 5-6	4-6 5-7	4-7 7-9	3-4 4-5	3-6 6-7	6-8				
<i>I. hawkerii</i> 'Sonic Cherry' (FG)	4-5 4-5	4-6 5-8	4-6 4-8	3-5 3-5	**5-6 **6-8	7-9				
<i>I. hawkerii</i> 'Sonic Dark Salmon' (FG)	4-5 4-6	4-5 6-8	3-6 5-7	3-5 3-6	5-6 5-8	7-8				
<i>I. hawkerii</i> 'Sonic Hot Pink' (FG)	5-7 5-6	5-7 6-9	4-6 5-7	4-5 3-5	4-6 5-8	7-12				
<i>I. hawkerii</i> 'Sonic Light Pink' (FG)	3-5 3-6	4-7 5-7	4-6 5-7	3-5 2-5	4-6 6-8	7-8				
<i>I. hawkerii</i> 'Sonic Orange' (FG)	3-6 4-6	4-7 5-8	3-5 5-8	4-6 4-7	5-6 6-7	8-9				
<i>I. hawkerii</i> 'Sonic Pastel 2003' (FG)	5-6 5-6	5-8 7-10	4-7 4-11	4-6 5-9	4-6 5-8	4-9				
<i>I. hawkerii</i> 'Sonic Purple' (FG)	5-6 5-6	5-6 5-7	3-6 5-9	3-5 3-5	5 5-7	7-9				
<i>I. hawkerii</i> 'Sonic Salmon' (FG)	3-5 4-6	3-7 3-8	4-6 5-8	4-5 4-6	5-6 7-9	6-8				
<i>I. hawkerii</i> 'Sonic Scarlet Blush' (FG)	3-6 5-6	4-7 5-7	** () ** ()	4-6 3-7	**5-6 **6-9	*8-9				
<i>I. hawkerii</i> 'Sonic Sweet Orange' (FG)	5-7 4-6	6-8 6-8	4-6 8-11	3-5 4-6	5-8 7-8	9-11				
<i>I. hawkerii</i> 'Sonic Zorro Red' (FG)	3-5 4-5	3-6 3-6	**6-7 **8-9	5 6-7	5-8 5-8	9-10				
<i>I. hawkerii</i> 'Super Sonic Cherry Cream' (FG)	5-9 6-8	5-8 6-9	7-9 7-9	6-7 7-8	5-7 6-9	8-10				
<i>I. hawkerii</i> 'Super Sonic Coral Ice 2003' (FG)	8-9 8-9	8-9 8-11	7-8 9-12	6-7 7-8	2-7 3-8	5-12				
<i>I. hawkerii</i> 'Super Sonic Dark Salmon' (FG)	5-8 4-7	7-10 6-10	7-8 7-9	5-7 4-6	5-8 5-8	7-9				
<i>I. hawkerii</i> 'Super Sonic Flame' (FG)	6-8 5-7	6-8 7-10	6-7 8-9	5-6 6-7	4 4	died				

	Fargo			Dickinson			Williston		
	July 26 Height Spread	September 8, 9 Height Spread	July 7 Height Spread	July 7 Height Spread	August 30 Height Spread	July 8 Height Spread	August 31 Height Spread		
<i>Genus species</i> 'Cultivar' (seed source)									
<i>I. hawkerii</i> 'Super Sonic Lavender' (FG)	7-9 4-8	7-9 7-10	7-8 8-9	7-8 8-9	6-7 6-8	5-8 7-9	5-9 7-11		
<i>I. hawkerii</i> 'Super Sonic Light Pink' (FG)	6-8 6-8	6-8 8-9	7-9 7-9	7-9 7-9	5-7 3-8	4-6 7-9	7-8 7-8		
<i>I. hawkerii</i> 'Super Sonic Magenta' (FG)	7-8 6-8	6-8 8-10	5-8 8-10	8-10 8-10	5-7 5-7	*5-7 *7-9	7-8 9-11		
<i>I. hawkerii</i> 'Super Sonic Peach' (FG)	**7-8 **6-8	8-9 8-10	7-8 7-8	9-12 9-12	5-6 6-9	7-8 6-9	7-8 7-9		

	Fargo			Dickinson			Williston					
	July 26	September 8, 9	July 7	August 30	July 8	August 31	Height	Spread	Height	Spread		
<i>Genus species</i> 'Cultivar' (seed source)	Height	Height	Height	Height	Height	Height						
<i>Impatiens hawkerii</i> 'Super Sonic Salmon 2004' (FG)	**6-9"	**8-10"	*6-8"	6-9"	6-7"	7-8"			7-8"	7-10"		
<i>I. hawkerii</i> 'Super Sonic White 2003' (FG)	6-8	7-10	5-7	7-10	7-8	7-8			7-8	5-9		
<i>I. wallerana</i> 'Accent Pastel Mix' (GS)	3-5	7-14	7-9	10-19								
<i>I. wallerana</i> 'Accent Sunrise Mix' (GS)	3-6	5-10	6-9	7-12								
<i>I. wallerana</i> 'Carnival Mix' (Da)	3-6	6-8	6-9	8-12								
<i>I. wallerana</i> 'Circus Orange White' (PAS)	3-6	7-10	5-9	12-16								
<i>I. wallerana</i> 'Dazzler Blue Pearl' (PAS)	2-4	4-7	3-9	12-14								
<i>I. wallerana</i> 'Fanciful Red' (PAS)	3-4	4-6	4-9	11-14								
<i>I. wallerana</i> 'Mosaic Coral' (GS)	2-5	5-7	5-9	11-14								
<i>I. wallerana</i> 'Showstopper Cotton Candy' (Ball)	3-5	3-9	6-9	9-14								
<i>I. wallerana</i> 'Super Elfin Ruby' (PAS)	2-3	4-5	6-8	9-11								
<i>I. wallerana</i> 'Swirl Raspberry' (PAS)	2-5	3-5	5-8	8-11								
<i>I. wallerana</i> 'Victorian Rose' (AAS 98)	4-5	3-7	6-9	8-13								
<i>Ipomoea alba</i> (Moon Vine) (Pk)	to 15	()	4-5	()								
<i>I. batata</i> (Sweet Potato Vine) 'Blackie' (Pk)	**6-7	**15-20	**15-20	**24-36								
<i>I. batata</i> 'Marguerite' (Unk)	6-7	12-20	12-20	**24-36								
<i>I. (Mina) lobata</i> (Firecracker Vine) (Pk)	to 36	**vining to 48"	3-5	**vining to 48"								
<i>I. x multifida</i> (Cardinal Climber) (Pk)	to 30	vining to 42"	3-4	vining to 42"								
<i>I. nil</i> 'Heavenly Blue' (Pk)	to 36	*vining to 5-6'	6-8	*vining to 5-6'								
<i>I. nil</i> 'Minibar Rose' (Pk)	4-5	to 12	8-10	12-18								
<i>I. nil</i> 'Sunrise Serenade' (Ball)	to 8	vining to 42"	3	vining to 42"	*4-6	*vining to 18"			1-7	*vining to 36"		
<i>I. purpurea</i> 'Star of Yelta' (Pk)	to 24	**vining to 5-6'	6-8	**vining to 5-6'								
<i>I. quamoclit</i> (Cypress Vine) 'Mix' (Pk)	12	12	3	6								
<i>Lablab purpureus</i> (<i>Dolichos lablab</i>) (Hyacinth Bean) (Pk)	*vining up to 5'	**vining to 6'+		**vining to 6'+								
<i>Limonium sinuatum</i> 'Soiree Mix' (Pk)	3-20	**17-29	12-18	**14-24								
<i>Lobularia maritima</i> 'Golf' (Unk)	2-4	3-6	7-10	7-13								
<i>L. maritima</i> 'Pastel Carpet' (Pk)	2-3	3-7	6-12	8-15								
<i>L. maritima</i> 'Snow Crystals' (Pk)	2-4	3-7	6-10	7-12								
<i>Melampodium paludosum</i> 'Showstar' (Ben)	5-8	5-12	5-9	6-13								
<i>Nicotiana glauca</i> 'Domino Mix' (Pk)	4-12	7-17	4-10	5-18								
<i>N. x sanderae</i> 'Perfume Mix' (Pk)	9-15	9-20	5-12	7-15								
<i>Osteospermum ecklonis</i> 'Passion Mix' (AAS 99)	6-9	11-17	6-9	9-14								
<i>Pelargonium x hortorum</i> - Zonal Geraniums												
Alba 2005 (FG)	5-8	8-10	9-11	9-12	7-8	7-9	*13-14	*14-16	4-6	7-9	**11-13	**13-16
Appleblossom Orbit (GS)	4-9	9-12	4-9	9-16								
Black Velvet Rose (AAS '02)	9-11	*11-14	8-11	*12-16	6-8	7-9	**14-17	**14-18	6-8	8-10	**14-16	**16-20
Bravo (FG)	5-9	6-10	6-10	7-14	5-8	7-9	13-15	12-18	5-6	7-8	**13-15	**18-22
BullsEye Cherry (Ball)	7-9	9-13	6-9	8-14	5-8	6-8	14-16	14-16	6-9	7-11	**13-15	**15-18

<i>Genus species</i> 'Cultivar' (seed source)	Fargo		September 8, 9		July 7		Dickinson		August 30		July 8		Williston	
	July 26 Height	Spread	Height	Spread	Height	Spread	Height	Spread	Height	Spread	Height	Spread	Height	Spread
BullsEye Light Pink (Ball)	*8-10	*7-10	11-13	9-14	6-8	8-9	*15-17	*15-18	6-9	8-10	*13-15	*16-22		

	Fargo			Dickinson			Williston			
	July 26	September 8, 9	July 7	August 30	July 8	August 31	Height	Spread	Height	Spread
<i>Genus species</i> 'Cultivar' (seed source)	Height	Height	Height	Height	Height	Height	Height	Spread	Height	Spread
Exotic geraniums	Spread	Spread	Spread	Spread	Spread	Spread	Spread	Spread	Spread	Spread
Graffiti Fire (Red) (FG)	**10-11"	13-15"	*5-8"	15-18"	6-8"	**15-17"	**15-17"	6-8"	**15-17"	**18-20"
Graffiti Pink (FG)	9-11	11-14	**7-12	**15-18	10-12	**16-18	**16-18	7-12	**16-18	**14-16
Graffiti Salmon Rose (FG)	**11-12	*15-17	7-9	18-20	6-7	**15-18	**15-18	7-9	**15-18	**20-22
<i>Pelargonium peltatum</i> - Ivy Geraniums	**12-14	*14-17	9-12	19-22	7-9	**15-18	**15-18	8-12	**15-18	**20-24
Black Magic (FG)	**8-10	9-11	4-6	9-12	5-7	9-11	9-11	8-12	**11-13	**20-24
Flair (FG)	6-7	8-10	4-6	6-9	4-6	8-13	8-13	5-8	11-15	12-18
Holiday Purple Dream (FG)	**6-9	*8-13	4-7	6-12	4-7	9-15	9-15	7-9	**12-15	**18-20
Holiday Ruby Dream (FG)	8-10	9-11	6-8	8-10	4-7	8-12	8-12	7-10	**11-15	**18-22
Luna 2005 (FG)	6-9	10-13	5-7	9-11	4-7	11-13	11-13	5-8	*13-15	*15-17
Maxime (FG)	*8-11	10-12	5-7	**11-12	5-7	**20-22	**20-22	5-9	*11-12	*20-22
Molina 2005 (FG)	10-12	8-10	5-7	**13-15	4-6	**18-24	**18-24	7-11	**14-16	**24-26
Purple Dream (FG)	9-11	10-12	4-8	13-15	5-7	18-20	18-20	6-10	**15-17	**22-25
Ruby Dream (FG)	**8-10	7-9	6-7	8-12	4-6	16-22	16-22	7-9	**12-16	**18-24
Tutti Frutti (FG)	**9-12	**11-13	7-8	**12-16	4-6	**19-25	**19-25	5-7	**13-15	**22-24
Blizzard Cascades										
Purple Blizzard (FG)	**10-12	10-12	6-8	10-12	6-9	**20-24	**20-24	7-9	*15-18	*23-26
<i>Pennisetum glaucum</i> 'Purple Majesty' (AAS '03)	()	15-29	9-28	36-46	6-22	18-24	18-24	4-8	12-36	12-20
<i>P. setaceum</i> (Fountain Grass) (Pk)	*15-18	*20-36	12-22	**28-30	8-12	**30-36	**30-36	7-12	**26-28	**28-32
<i>Pentas lanceolata</i> 'Graffiti Bright Red' (Ben)	1-2	3-4	2-4	4-6	1	4-6	4-6	1	4-5	4-5
<i>P. lanceolata</i> 'Graffiti Pink' (Ben)	1-2	3-4	1-3	3-5	1	4-6	4-6	1	3-5	3-5
<i>P. lanceolata</i> 'Graffiti Violet' (Ben)	2-5	3-6	4-5	4-6	1	4-7	4-7	1	3-7	5-8
<i>P. lanceolata</i> 'Graffiti White' (Ben)	2-4	3	2-3	5-6	1	5-8	5-8	1	3-5	3-7
<i>Petunia hybrida</i> - Floribunda Petunias										
Celebrity Chiffon Morn (AAS '95)	4-7	5-9	6-12	6-12	5-9	6-12	6-12	6-12		
Celebrity Watercolors Mix (Bod)	3-6	6-10	6-18	6-18	6-10	6-18	6-18	6-18		
Madness Red and White (Ball)	3-7	7-12	11-20	11-20	7-12	11-20	11-20	11-20		
<i>Petunia hybrida</i> - Grandiflora Petunias										
Double Cascade Blue (PAS)	*5-7	6-9	9-19	**16-18	5-6	**24-30	**24-30	5-9	12-14	20-24
Dreams Burgundy Picotee (PAS)	**5-7	**11-14	**15-20	**11-14	5-6	**15-18	**15-18	8-12	**11-13	**20-24
Dreams Sky Blue (PAS)	*5-9	*11-14	*13-18	**6-9	*5-7	**18-24	**18-24	*7-10	**11-17	**20-26
Limbo Violet (AAS '04)	4-5	4-5	12-18	**5-7	5-6	22-26	22-26	5-9	**9-11	**18-24
Pirouette Red (PAS)	5-8	7-12	11-17							
Stars and Stripes (Ball)	5-8	6-9	6-14							
Ultra Limited Edition Mix (GS)	4-7	7-10	12-20							
<i>Petunia hybrida</i> - Hedgeflora Petunias										
Tidal Wave Purple (Ball)	**7-9	*12-18	*20-40							
Tidal Wave Silver (AAS '02)	**7-9	**12-14	**24-40							

	Fargo			Dickinson			Williston		
	July 26	September 8, 9	July 7	August 30	July 8	August 31			
	Height	Spread	Height	Spread	Height	Spread			
<i>Genus species</i> 'Cultivar' (seed source)									
<i>Petunia hybrida</i> - Milliflora Petunias									
Fantasy Carmine (GS)	2-5"	2-6"	3-7"	6-9"					
Fantasy Crystal Light Salmon (GS)	3-5	3-7	3-6	5-8					
Fantasy Crystal Red (GS)	2-4	3-6	3-5	4-6					
Fantasy Pink (GS)	3-5	3-8	3-7	4-9					
Fantasy Pink Morn (GS, AAS '96)	2-5	3-5	4-6	5-7					
Fantasy Red (GS)	2-4	3-6	4-7	5-8					
Fantasy Salmon (GS)	3-6	4-9	4-6	6-9					
<i>Petunia hybrida</i> - Multiflora Petunias									
PrimeTime Lavender (GS)	6-9	6-9	6-13	8-18					
PrimeTime Red (GS)	1-5	1-7	6-11	4-14					
PrimeTime Salmon Morn (GS)	4-8	4-10	6-13	7-18					
<i>Petunia hybrida</i> - Spreading or Prostrate Petunias									
Blue Wave (AAS '03)	1-4	3-11	4-5	10-15	1-3"	7-10"			
Easy Wave Blue (PAS)	1-4	5-11	4-8	10-14	2-4	7-14			
Easy Wave Salmon (PAS)	1-3	3-5	2-3	4-6					
Lavender Wave (AAS '02)	1-4	3-7	3-4	8-20	1-3	4-12			
Misty Lilac Wave (Pk)	3-6	4-8	6-8	9-20					
Pink Wave (PAS)	1-2	3-6	2	4-6					
<i>Phaseolus coccineus</i> (Scarlet Runner Bean) 'Scarlet Emperor' (Pk)	**vining to 40"	vining to 4-5'							
<i>Plectranthus argentatus</i> 'Silver Shield' (PAS)	**6-14	**7-11	**9-19	**11-13	**6-8	**6-14			
<i>Portulaca grandiflora</i> 'Extra Orange' (Gri)	1-3	3-9	1-3	9-14	2-3	3-12			
<i>P. grandiflora</i> 'Margarita Peppermint' (PAS)	1-2	2-5	3-7	3-11	3	4-6			
<i>P. grandiflora</i> 'Margarita Rosita' (AAS '01)	1-3	2-5	3-5	8-12	3	5-7			
<i>P. grandiflora</i> 'Margarita Scarlet' (PAS)	2	3-5	3-7	3-12					
<i>Rudbeckia hirta</i> 'Autumn Colors' (Ben)	*11-15	*8-12	*12-16	*14-16					
<i>R. hirta</i> 'Cherokee Sunset' (AAS '02)	7-15	6-12	*19-22	*8-14	8-10	9-12			
<i>R. hirta</i> 'Cordoba' (Ben)	**3-7	**2-8	7-11	6-12					
<i>R. hirta</i> 'Indian Summer' (AAS '95)	6-14	9-12	*24-35	*14-16					
<i>R. hirta</i> 'Maya' (Ben)	*9-11	*6-9	10-16	10-18	6-9	8-11			
<i>R. hirta</i> 'Prairie Sun' (AAS '03)	**12-16	**9-11	*15-20	*14-17	8-12	8-11			
<i>R. hirta</i> 'Toto Gold' (Ben)	*4-8	*3-6	5-9	7-11					
<i>R. hirta</i> 'Toto Lemon' (Ben)	*4-8	*3-6	5-9	6-9					
<i>R. hirta</i> 'Toto Rustic' (Ben)	5-8	3-7	6-9	5-8					
<i>Salvia coccinea</i> 'Forest Fire' (Pk)	3-12	3-9	8-20	5-14					
<i>S. farinacea</i> 'Reference' (Ben)	**13-15	**8-10	**15-22	**12-18					
<i>S. farinacea</i> 'Victoria' (Pk)	*8-18	*6-11	15-22	8-18					
<i>S. patens</i> 'Blue Angel' (Ben)	15-18	7-9	**23-27	**14-19					

Genus species 'Cultivar' (seed source)	Fargo			Dickinson			Williston		
	July 26 Height Spread	September 8, 9 Height Spread	July 7 Height Spread	August 30 Height Spread	July 8 Height Spread	August 31 Height Spread			
<i>S. splendens</i> 'Blue Ribbon' (PAS)	8-9 7-9	12-13 12-14							
<i>Salvia splendens</i> 'Hotline Mix' (Pk)	4-7" 4-9"	9-15" 7-13"							
<i>S. splendens</i> 'Salsa Mix' (GS)	5-8 3-9	9-11 9-12							
<i>S. splendens</i> 'Salvatore' (Ben)	*10-11 *9-10	*12-13 *10-13	5-7" 6-7"	**12-14" **14-17"	1" 1-3"	5-11" 6-12"			
<i>Scabiosa atropurpurea</i> 'Giant Imperial Mix' (Pk)	15-20 6-15	25-30 10-12							
<i>S. atropurpurea</i> 'QIS Scarlet' (Pk)	6-15 6-10	19-29 11-14							
<i>Senecio cineraria</i> 'Cirrus' (Pk)	5-6 7-9	**7-12 **11-17							
<i>S. cineraria</i> 'Silverdust' (Pk)	5-7 6-8	**9-11 **9-14							
<i>Solenostemon scutellaroides</i> 'Carefree Mix' (Pk)	2-8 3-9	4-9 3-12							
<i>S. scutellaroides</i> 'Park's Brilliant Mix' (Pk)	3-5 3-7	3-9 4-12							
<i>Spilanthes oleracea</i> 'Peek-A-Boo' (PAS)	**5-6 **11-12	**6-7 **13-16							
<i>Stipa tenuissima</i> 'Angel Hair' (Pk)	14-16 9-11	**20-30 **12-20							
<i>Tagetes erecta</i> 'Antigua Gold' (GS)	8-9 10-11	11-13 17-19							
<i>T. erecta</i> 'Antigua Orange' (GS)	**8-9 **11-12	9-13 12-14							
<i>T. erecta</i> 'Antigua Yellow' (GS)	7-11 6-12	8-11 7-15							
<i>T. erecta</i> 'Inca II Gold' (GS)	**9-10 **12-13	15-17 20-22							
<i>T. erecta</i> 'Inca II Orange' (GS)	**10-11 **12-14	13-16 20-23							
<i>T. erecta</i> 'Inca II Primrose' (GS)	9-10 12-14	15-17 18-23							
<i>T. erecta</i> 'Inca II Yellow' (GS)	**11-12 **10-12	10-15 14-18							
<i>T. erecta</i> 'Park's Whopper Yellow' (Pk)	11-13 6-12	14-18 12-22							
<i>T. erecta</i> 'Perfection Gold' (GS)	**13-14 **13-14	18-22 24-26							
<i>T. erecta</i> 'Perfection Yellow' (GS)	**13-15 **13-15	18-22 22-24							
<i>T. patula</i> 'Bonanza Gold' (PAS)	6-8 6-12	**10-13 **17-20							
<i>T. patula</i> 'Bonanza Harmony' (PAS)	**6-7 **10-12	7-9 10-12							
<i>T. patula</i> 'Bonanza Orange' (PAS)	*8-9 *12-14	*13-15 *16-20							
<i>T. patula</i> 'Durango Red' (PAS)	7-9 10-12	10-12 14-16							
<i>T. patula</i> 'Durango Tangerine' (PAS)	**9-11 **12-14	**12-13 **20-22							
<i>T. patula</i> 'Durango Yellow Improved' (PAS)	8-9 10-12	*13-15 *12-14							
<i>T. patula</i> 'Golden Guardian' (Pk)	**20-24 **22-24	24-30 40-42							
<i>T. patula</i> 'Tiger Eyes' (Pk)	**8-9 **11-12	**13-17 **20-22							
<i>Tanacetum ptarmiciflorum</i> 'Silver Feather' (Pk)	7-9 6-11	**12-15 **12-17							
<i>Thunbergia alata</i> (Black-eyed Susan Vine) (Pk)	to 18 6-9	** () ** ()							
<i>Tithonia rotundifolia</i> 'Fiesta del Sol' (AAS '00)	9-22 9-22	22-34 13-18	5-11 5-9	17-30 14-20	1 2-3	17-19 16-21			
<i>Trachelium caeruleum</i> 'Jenny Antique Rose' (Ben)	5-12 3-8	10-12 7-11							
<i>T. caeruleum</i> 'Jenny Royal Purple' (Ben)	10-12 6-8	10-17 7-9							
<i>T. caeruleum</i> 'Jenny Violet' (Ben)	6-11 3-8	10-16 6-11							
<i>T. caeruleum</i> 'Jenny White' (Ben)	6-12 3-7	12-17 9-13							
<i>Verbena bonariensis</i> (Pk)	24-30 20-24	**33-36 **30-36							

Genus species 'Cultivar' (seed source)	Fargo			Dickinson			Williston		
	July 26 Height Spread	September 8, 9 Height Spread	July 7 Height Spread	August 30 Height Spread	July 8 Height Spread	August 31 Height Spread			
<i>V. x hybrida</i> 'Crystal Ball Mix' (PAS)	6-9 6-12	7-11 7-19	5-8" 4-7"	3-5" 4-6"	5-7" 5-9"	**8-9" **11-12"			
<i>V. x hybrida</i> 'Quartz Red Eye' (PAS)	5-8 3-14	9-13 12-16							
<i>Verbena x hybrida</i> 'Quartz Waterfall Mix' (PAS)	5-7" 6-9"	6-9" 11-13"							
<i>V. tenuisecta</i> 'Imagination' (Pk)	**9-11 **18-24	**9-18 **36-42							
<i>Viola wittrockiana</i> 'Ultimo Morpho' (AAS '02)	5-7 5-7	7-9 6-9	5-8" 4-7"	3-5" 4-6"	5-7" 5-9"	**8-9" **11-12"			
<i>Zinnia angustifolia</i> 'Crystal White' (AAS '97)	6-10 7-11	7-10 9-16							
<i>Z. elegans</i> 'Benary's Giant Mix' (Ben)	17-19 10-14	**22-28 **12-15							
<i>Z. elegans</i> 'Envy' (Pk)	*17-19 *12-14	20-26 12-14							
<i>Z. elegans</i> 'Giant Cactus Mix' (Pk)	17-24 15-22	*18-27 *12-16							
<i>Z. elegans</i> 'Magellan Coral' (AAS '05)	*5-10 *7-12	*10-12 *13-16	*8-11 *6-9	14-16 10-14	2-6 2-5	*13-15 *13-16			
<i>Z. elegans</i> 'Oklahoma Mix' (Pk)	16-20 12-20	20-26 12-15							
<i>Z. elegans</i> 'Park's Picks Mix' (Pk)	15-22 12-15	**20-27 **11-17							
<i>Z. elegans</i> 'Peter Pan Mix' (GS)	**7-12 **7-10	**9-13 **9-12							
<i>Z. elegans</i> 'Short Stuff Mix' (GS)	**5-7 **5-8	*5-9 *6-12							
<i>Z. elegans</i> 'Swizzle Cherry & Ivory' (Pk)	5-9 7-9	6-9 8-11							
<i>Z. elegans</i> 'Swizzle Scarlet & Yellow' (Pk)	6-8 7-10	7-9 8-11							
<i>Z. elegans</i> 'Zinnita Orange' (Ben)	5-8 6-9	7-10 9-13							
<i>Z. elegans</i> 'Zinnita White' (Ben)	5-12 1-9	7-12 9-14							
<i>Z. elegans</i> 'Zinnita Yellow' (Ben)	5-7 5-8	5-10 7-11							
<i>Z. tenuifolia</i> 'Red Spider' (Pk)	**18-26 **14-16	22-23 12-15							
<i>Z. hybrid</i> 'Profusion Cherry' (AAS '99)	**7-8 **9-12	**10-16 **16-22							
<i>Z. hybrid</i> 'Profusion Orange' (AAS '99)	6-11 9-15	13-19 16-22							
<i>Z. hybrid</i> 'Profusion White' (AAS '01)	*4-8 *5-9	*8-13 *10-14	4-6 4-6	*11-14 *14-17	1-3 3-5	**12-15 **12-17			

Visual Observations

NDSU Bedding Plant Trials - 2004

Cultivar tested (seed source)	Fargo July 26, 28 and September 9, 10	Dickinson July 7 and August 30	Williston July 8 and August 31
<i>Abutilon x hybridum</i> 'Bella Apricot' (PAS)	Small all season with no vigor or bloom. Best of the three <i>Abutilons</i> here but still not much vigor or bloom; not uniform in size or bloom.		
<i>A. x hybridum</i> 'Bella Pink' (PAS)	Small all season with no vigor or bloom; not uniform in size or bloom.		
<i>A. x hybridum</i> 'Bella Salmon' (PAS)	Not uniform in height all season; just starting to bloom for the July evaluation but really good bloom by September.		
<i>Agastache cana</i> 'Heather Queen' (PK)	Not uniform in size or bloom all season; some plants loaded with flowers, others with only a few.		
<i>A. foeniculum</i> 'Blue Spike' (PK)	Uniform in size in July but not bloom; good vigor and bloom by September but not uniform in size.	Small with no vigor in July and not blooming; bloom good in August but not uniform in size.	Poor with no vigor or bloom in July; alright in August with good bloom but not uniform in size.
<i>A. rupestris</i> (PK)	Just starting to bloom for July evaluation-not uniform in size or bloom; nice plants in September but still not uniform in size.		
<i>A. scrophulariacea</i> 'Garden Leader Blush' (Gr)	Good vigor all season but not uniform in height or bloom time and color dull.	Just starting to bloom for July evaluation; size uniformity and bloom good all season but flower color seemed dull.	Not uniform in size early; good vigor but color dull.
<i>Ageratum houstonianum</i> 'Azure Pearl' (WG)	Not uniform in size all season; small and not too vigorous. Nicer in July than September; bloom fairly good all season but not as vigorous as normal.		
<i>A. houstonianum</i> 'Blue Horizon' (PK)	Small and not uniform in size all season.		
<i>A. houstonianum</i> 'Leilani Blue' (GS)	Good bloom all season although dead heads detracted a little in September.		
<i>A. houstonianum</i> 'Neptune Blue' (GS)	Two of six died; good bloom by September but not uniform in size.		
<i>A. houstonianum</i> 'Pearl Royal' (PAS)	Size uniformity and bloom alright in July-one of the nicer <i>Ageratums</i> ; uniformity poor by Sept. and dead heads obvious.		
<i>A. houstonianum</i> 'Silver Pearl' (WG)	Not uniform in size or bloom early and few blooms; lots of flowers by Sept. but not uniform in height and plants leaning.		Good vigor and uniformity early but no bloom; good bloom in August but has some kind of leaf spotting on it.
<i>Alcea rosea</i> 'Queen Purple' (AAS '04)	Small with no vigor all year; has done better in past years.		
<i>Alternanthera dentata</i> 'Purple Knight' (PAS)	Two of six died-not uniform in size or vigor; only one nice plant in September with good yellow leaf coloring.		
<i>Amaranthus tricolor</i> 'Aurora' (PK)	Small, no vigor all season.		
<i>A. tricolor</i> 'Illumination' (PK)	Not uniform in size early but good color on leaves; something chewed them down at the base of the stem by September.		
<i>A. tricolor</i> 'Perfecta' (PK)	Not uniform in size or bloom early; only one really nice plant by September.		
<i>Antirrhinum majus</i> (Snapdragons) 'Cascadia Mix' (PK)	Three of six died but three remaining had good bloom in July; bloom declining by September but two plants still pretty nice.		
<i>A. majus</i> 'LaBella Rose' (GS)	Nice in July with good bloom and size uniformity; nice bushy plants in September but bloom had declined somewhat.		
<i>A. majus</i> 'Night and Day' (PK)	Good bloom early but not uniform in size; nice plants in September but decline in bloom.		
<i>Antirrhinum majus</i> 'Purple Bells' (GS)			

Cultivar tested (seed source)	Fargo July 26, 28 and September 9, 10	Dickinson July 7 and August 30	Williston July 8 and August 31
<i>A. majus</i> 'Red Bells' (GS)	Not uniform in size or bloom in July; nice little plants in September but decline in bloom.		
<i>A. majus</i> 'Rose Bells' (GS)	Not uniform in size or bloom in July; nice little plants in September but decline in bloom.		
<i>A. majus</i> 'Rose Ribbon' (GS)	Two of six died-remaining four with good bloom and size uniformity in July; very good bloom in September.		
<i>Arctotis venusta</i> (African Daisy) (Pk)	Good bloom and size uniformity in July; plants declined in bloom by September and were falling over.		
<i>Asarina scandens</i> 'Color Mix' (Pk)	Not uniform in vigor early but good bloom; very nice in September with good bloom and vigor-vining well.		
<i>A. x wislizenis</i> 'Red Dragon' (Pk)	Small with no vigor or bloom all season.		
<i>Asclepias curassavica</i> 'Red Butterfly' (Pk)	Not as vigorous as 'Silky Red' in July; by September very nice with good bloom, vigor and uniformity.		
<i>A. curassavica</i> 'Silky Gold' (Pk)	Not uniform in size in July; very nice in September with good bloom, vigor and uniformity.		
<i>A. curassavica</i> 'Silky Red' (Pk)	The best of the <i>A. curassavica</i> all year, especially nice by September.		
<i>A. incarnata</i> 'Cinderella' (Pk)	Bloomed sometime between July and September evaluation; African Daisy is falling over on top of it.		
<i>A. tuberosa</i> 'Gay Butterflies' (Pk)	Not uniform in size or bloom early; something (rabbits?) ate the flowers in September-not much bloom.		
<i>Begonia x hybrida</i> 'BabyWing Pink' (PAS)	Nice all season with good bloom and uniformity; I liked this one.	Did well all season with good bloom and vigor.	Not as vigorous here in July as it was in Dickinson but was very nice by the second evaluation in August.
<i>B. x hybrida</i> 'Dragon Wing Pink' (Pk)	Nicest in July with good bloom and size uniformity; by September lost some uniformity and vigor compared to others.		
<i>B. x semperflorens-cultorum</i> 'Harmony Pink Improved' (Ball)	Good bloom all season but size uniformity was better in July.		
<i>B. x semperflorens-cultorum</i> 'Harmony Scarlet Improved' (Ball)	Good bloom all season but size uniformity was better in July.		
<i>B. x semperflorens-cultorum</i> 'Harmony White Improved' (Ball)	Good bloom, vigor and size uniformity all season.		
<i>B. x semperflorens-cultorum</i> 'Olympia Sprint Deep Pink' (Ben)	Nice all season with good vigor and bloom.	Small plants, not too vigorous all season; bloom was good in August despite the small plant sizes.	Good bloom all season but lacked uniformity in size
<i>B. x semperflorens-cultorum</i> 'Olympia Sprint Mix Improved' (Ben)	Good bloom, vigor and size uniformity all season.		
<i>B. x semperflorens-cultorum</i> 'Olympia Sprint Pink' (Ben)	Good bloom, vigor and size uniformity all season.		
<i>B. x semperflorens-cultorum</i> 'Partyfun' (Ben)	Good vigor early but not quite as floriferous as other begonias; very nice in September with good bloom, vigor and uniformity.		
<i>B. x semperflorens-cultorum</i> 'Prelude Pink Improved' (Ball)	Good bloom, vigor and size uniformity all season.		
<i>B. x semperflorens-cultorum</i> 'Prelude Scarlet Improved' (Ball)	Good bloom early but not as uniform in size as others; very nice in September.		
<i>B. x semperflorens-cultorum</i> 'Prelude White Improved' (Ball)	Good bloom, vigor and size uniformity all season.		
<i>Begonia x semperflorens-cultorum</i> 'Queen Pink' (Da)	Nice double blooms but not as vigorous or floriferous as other begonias all season.		
<i>B. x semperflorens-cultorum</i> 'Queen Red' (Da)	Not as floriferous or uniform in size as other begonias all season		

Cultivar tested (seed source)	Fargo July 26, 28 and September 9, 10	Dickinson July 7 and August 30	Williston July 8 and August 31
<i>B. x semperflorens-cultorum</i> 'Vodka' (Ben)	Nice all season with good bloom, vigor and size uniformity.	Poor-no bloom and not uniform in size.	Good bloom and vigor for the July evaluation; still alright in August but seemed more vigorous in July.
<i>B. x tuberhybrida</i> 'Nonstop Deep Red' (Ben)	Doing well for a tuberous begonia which normally don't do well in our trials; nicer in July than September.		
<i>B. x tuberhybrida</i> 'Pin Up Flame' (AAS '99)	Not too bad for here with fairly good vigor and bloom all season.		
<i>Calendula officinalis</i> 'Prince Mix' (Pk)	Very nice in July with good bloom and vigor; decline in bloom by September but plants still vigorous and healthy.		
<i>C. officinalis</i> 'Touch of Red' (Pk)	Not uniform in size early-bloom alright but color dull; decline in bloom by September and one plant dying.		
<i>Capiscium annuum</i> 'Chilly Chili' (AAS '02)	Size uniformity poor all season but bloom and pepper production good; especially showy in September.	Uniform but small in July and no bloom; good vigor in August with lots of yellow peppers.	Small with no vigor in July; nice in August with good vigor and lots of peppers.
<i>Catharanthus roseus</i> (Vinca) 'Cooler Lavender Halo' (PAS)	Not uniform in size, bloom or vigor all season.		
<i>C. roseus</i> 'Cooler Orchid Deep' (PAS)	Small, not much vigor and bloom not as good as on some other vinca.		
<i>C. roseus</i> 'Cooler Rose Hot' (PAS)	One of the more vigorous vinca this year; bloom was a bit better too.		
<i>C. roseus</i> 'First Kiss Apricot' (Ben)	Small-not uniform in size, vigor or bloom all season.		
<i>C. roseus</i> 'First Kiss Blueberry' (Ben, AAS '05)	Pretty dark lavender color but plants not as vigorous as they should be; not uniform in size, vigor or bloom time in Sept.	Didn't do well; small with no vigor or bloom early; not uniform in size or bloom in August.	Small with no vigor and not much bloom all season.
<i>C. roseus</i> 'First Kiss Blush Improved' (Ben)	Small, not uniform in size, vigor or bloom for either July or August evaluation.	Small and no vigor early; doing alright in August but not as good as a vinca should be doing.	Same as in Dickinson-small with no vigor early; not doing as well as it could be in August.
<i>C. roseus</i> 'First Kiss Coral' (Ben)	Not uniform in size, vigor or bloom all season.		
<i>C. roseus</i> 'First Kiss Icy Pink' (Ben)	One of the better groups of vinca this year; fairly good bloom and size uniformity.		
<i>C. roseus</i> 'First Kiss Pink' (Ben)	Small-not uniform in size or bloom all season.		
<i>C. roseus</i> 'First Kiss Rose' (Ben)	Similar to many others-not much vigor and not uniform in size, bloom or vigor.		
<i>C. roseus</i> 'First Kiss Sunrise' (Ben)	Small, not uniform in size all season.		
<i>C. roseus</i> 'Jaio Dark Red' (AAS '03)	Not as vigorous as 'Jaio Scarlet Eye' in July but size uniformity better; not uniform in size or bloom in September.	Small with no vigor and only one bloom in July; fairly uniform in size and bloom in August but should be doing better.	Small, no vigor or blooms in July; uniform in size in August but bloom not that great.
<i>C. roseus</i> 'Jaio Scarlet Eye' (AAS '02)	Not uniform in size or vigor all season but bloom alright.	Small, no vigor and few blooms in July; fairly uniform in size in August but should be more vigorous.	Small with no vigor or blooms in July; uniform in size in August but bloom not that great.
<i>C. roseus</i> 'Stardust Orchid' (AAS '00)	Slow to bloom and not uniform in size or bloom all season.	Small with no vigor and only one bloom early; doing alright in August but should be more vigorous.	Small with no vigor or bloom in July; not uniform in size or bloom in August.
<i>Celosia cristata</i> 'Amigo Mix' (Ben)	Small with no vigor all season; not much bloom.		
<i>C. cristata</i> 'Prestige Scarlet' (AAS '97)	Usually does very well but this year it had no vigor and not many blooms.		
<i>Celosia plumosa</i> 'Castle Mix' (Pk)	Small, not uniform in size and blooms were 'dirty' looking.		
<i>C. plumosa</i> 'Fresh Look Red' (AAS '04)	Not as nice as last year when I rated it as one of the top flowers; not uniform in size and not as many blooms as before.	Not too healthy or vigorous in July; fairly uniform in size and bloom in August but did better last year.	Very small with no vigor in July; still not too vigorous in August and not much bloom.
<i>C. plumosa</i> 'Fresh Look Yellow' (AAS '04)	Not uniform in size and bloom all year. not as vigorous as 'Fresh Look Red' all season.	More vigor than 'Fresh Look Red' in July but still not that great; not uniform in height in August but bloom alright.	Very small with no vigor in July; not much vigor in August, either, and not much bloom.

Cultivar tested (seed source)	Fargo July 26, 26, 28 and September 9, 10	Dickinson July 7 and August 30	Williston July 8 and August 31
<i>Celosia plumosa</i> 'New Look' (Ben)	Small-not uniform in size or bloom all season.		
<i>C. spicata</i> 'Kosmo Purple Red' (Pk)	Small with no vigor all season.		
<i>C. spicata</i> 'Purple Flamingo' (Pk)	Not blooming in July; not uniform in size or vigor all season.		
<i>Cleome hasslerana</i> 'Queen Mix' (Pk)	Fairly good bloom and size uniformity in July; good bloom in September but plants leaning toward the south-east.		
<i>C. spinosa</i> 'Sparkler Blush' (AAS '02)	Nice all season with good bloom, vigor and uniformity; a bit overgrown by September and plants were leaning over.	Vigorous and uniform in July but slow to bloom; good size and bloom in August but (flea beetles?) eating holes in leaves.	Good vigor but not uniform in size in July-only one plant blooming; (flea beetles?) eating in August.
<i>C. spinosa</i> 'Sparkler Lavender' (Pk)	Similar to 'Sparkler Blush'-nice early but a bit overgrown and leaning over by September.		
<i>C. spinosa</i> 'Sparkler Rose' (Pk)	Not uniform in size or bloom time in July; shortest of the 'Sparkler' cultivars in September-bloom alright.		
<i>C. spinosa</i> 'Sparkler White' (Pk)	Not uniform in size or bloom early; getting pushed over by 'Sparkler Blush' in September.		
<i>Coleus x blumei</i> 'Giant Exhibition - Copper Queen' (Pk)	Not uniform in size or vigor all season.		
<i>C. x blumei</i> 'Giant Exhibition - Limelight' (Pk)	Not uniform in size or vigor all season.		
<i>C. x blumei</i> 'Giant Exhibition - Palisandra' (Pk)	Nice burgundy color on leaves but not uniform in size or vigor all season.		
<i>C. x blumei</i> 'Giant Exhibition - Scarlet II' (Pk)	Not uniform in size or vigor all season.		
<i>C. x blumei</i> 'Giant Exhibition - Tartan' (Pk)	Not uniform in size or vigor all season.		
<i>Cosmos sulphureus</i> 'Cosmic Orange' (AAS '00)	Had aphids in July but vigor and bloom alright; not uniform in size or bloom in Sept. and some plants dead.	Not too vigorous all season-has done better in past years.	No vigor in July; good bloom and vigor in August.
<i>C. sulphureus</i> 'Cosmic Red' (Ben)	Didn't do that well all season; not uniform in size or bloom and some plants dead by the September evaluation.	No vigor early, not uniform in size; not good in August either-should be doing better.	Very poor for July evaluation; not uniform in size or bloom in August and still not as vigorous as it could be.
<i>Delphinium grandiflorum</i> 'Summer Stars' (Ben)	Poor with no vigor and not much bloom all season.	Not blooming for July evaluation; poor with no vigor in August-still not blooming.	Not uniform in size and not much bloom in July; good bloom by August but not uniform in height.
<i>Dianthus barbatus</i> 'Amazon Neon Cherry' (PAS)	Just starting to bloom for July evaluation and not uniform in height; alright in September but these did better last year.		
<i>D. barbatus</i> 'Amazon Neon Purple' (PAS)	Just starting to bloom for July evaluation and not uniform in height; alright in September but these did better last year.		
<i>D. barbatus</i> 'Amazon Rose Magic' (PAS)	Same as for the other two 'Amazon' cultivars.		
<i>D. barbatus</i> 'Dynasty Purple' (Ball)	Good bloom in July except for one plant that wasn't blooming; bloom still alright in September but needed deadheading.		
<i>D. barbatus</i> 'Dynasty Red' (Ball)	Not uniform in size or bloom time all season.		
<i>Dianthus barbatus</i> 'Dynasty Rose Lace' (Ball)	'Good bloom for both evaluations, although bloom declined a bit in September; size uniformity was lacking in July.	Good vigor and size uniformity in July but slow to bloom; lacking uniformity in bloom in August but pretty flowers.	Slow to bloom but good vigor in July; decline in bloom by August-had been loaded with flowers-healthy and uniform.
<i>D. barbatus</i> 'Dynasty White Blush' (Ball)	Smaller than other 'Dynasty' cultivars in July and not as much bloom; still not as vigorous as others in September.		
<i>D. barbatus</i> 'So Bright' (Gri)	Small and no vigor all season.	Small, stayed in rosette growth all season.	Small, stayed in rosette growth all season.
<i>D. caryophyllus</i> 'Can Can Scarlet' (AAS '03)	Not uniform in size or bloom in July; lots of buds in September but not many blooms-good vigor.	Lots of buds in July but not much bloom; not uniform in size in August but bloom good.	Healthy and uniform in July but not blooming; good bloom in August.

Cultivar tested (seed source)	Fargo July 26, 28 and September 9, 10	Dickinson July 7 and August 30	Williston July 8 and August 31
<i>Dianthus chinensis</i> 'Corona Cherry Magic' (AAS '03)	Not uniform in size, vigor or bloom in July; not much vigor in September and only two of twelve plants blooming.	Uniform but small in July and just starting to bloom; not uniform in size or bloom in August.	Small but uniform all season; bloom had declined by August evaluation.
<i>D. chinensis</i> 'Melody Pink' (AAS '00)	Fairly uniform in size and bloom in July; nicer in September with good bloom and size uniformity.	Uniform and vigorous in July but no blooms; very nice in August with good bloom and vigor.	Not blooming in July but good vigor and lots of buds; very nice and showy in August.
<i>D. chinensis</i> 'Panda Mix' (Ball)	Bloom nice in July but not uniform in size; still not uniform in size or bloom in September.		
<i>D. chinensis</i> 'Valentine' (PAS)	Poor with no vigor all season.		
<i>Dichondra argentea</i> 'Silver Falls' (PAS)	Good vigor all season; nice ground cover by September.		
<i>D. repens</i> 'Emerald Falls' (PAS)	Small-not much vigor all season.		
<i>Eragrostis elliptici</i> 'Wind Dancer' (PAS)	Nice all season; airy texture of heads added nice movement to the garden.	Not blooming uniformly in July but by the end of August very nice bloom and vigor; nice airy texture	A little nicer here for the first evaluation than in Dickinson; very nice by the end of the summer-similar, again to Dickinson.
<i>Eucalyptus cinerea</i> (Pk)	Growth alright but plants fell over.		
<i>E. citridora</i> (Lemon Eucalyptus) (Pk)	Not much vigor all season.		
<i>Eustoma grandiflorum</i> (Lisianthus) 'Echo Blue' (Pk)	Good bloom in July and fairly uniform in size; decline in bloom by September and plants falling over.		
<i>E. grandiflorum</i> 'Echo Yellow' (Pk)	Fairly good bloom all season; plants falling over in September.		
<i>E. grandiflorum</i> 'Forever Blue' (AAS '01)	Not uniform in size or bloom in July; not too bad in September with good bloom and good size uniformity.	One really small plant in July but bloom and vigor good on others; slight decline in bloom by August but size good.	Not uniform in size or bloom early but plants healthy; 4 really nice plants in August (two had died).
<i>E. grandiflorum</i> 'Forever White' (AAS '03)	Not uniform in size all season; bloom better in September than July.	Not tested in Dickinson	Fairly uniform in size and bloom in July; only one plant still alive in August-it had lots of blooms, though.
<i>E. grandiflorum</i> 'Red Glass' (Pk)	Not uniform in size or bloom all season and plants falling over at the end of the season.		
<i>E. grandiflorum</i> 'Sapphire Blue Chip' (Pk)	Not uniform in size or bloom time all season.		
<i>E. grandiflorum</i> 'Sapphire Pink Rim' (Pk)	Not uniform in size or bloom time all season.		
<i>Gaillardia aristata</i> 'Arizona Sun' (Ben, AAS '05)	This did better out in Dickinson and Williston; didn't have the uniformity in size or bloom that I saw out west.	Only a few buds and flowers in July; by August one of the best flowers in the trials-uniform in size and bloom; very nice!	Not blooming for July evaluation but fairly uniform in size; very nice in August-similar to Dickinson planting-nice!
<i>G. pulchella</i> 'Sundance Bicolor' (AAS '03)	Good bloom and vigor in July; still good bloom in September but lacking in height uniformity.	Good vigor all season but not blooming in July; very showy in August with good bloom.	More vigor in Dickinson than here but still alright; good vigor and bloom in August but lots of just red flowers.
<i>G. pulchella</i> 'Yellow Queen' (Pk)	Not blooming in July but vigor good; good vigor and bloom in September but plants falling over and no size uniformity.		
<i>Gazania rigens</i> 'Daybreak Orange Cream' (PAS)	Good bloom in July but size uniformity a little lacking; doing alright in September.		
<i>Gazania rigens</i> 'Kiss Mixture' (GS)	Good color mix and bloom in July; not uniform in size or bloom in September with one dead plant of twelve.		
<i>Gomphrena globosa</i> 'Mix' (Pk)	Not uniform in size all season; bloom better in September than July.		
<i>G. globosa</i> 'Purple Gomp' (Gri)	Not uniform in size or bloom in July; good bloom by the end of the season but not uniform in size; did better in Dickinson.	Small for the July evaluation with few flowers; very nice in August with good bloom and vigor.	Not too vigorous all season and not much bloom.
<i>G. haageana</i> 'Strawberry Fields' (Pk)	Not very vigorous all season; this has done better in the past.		
<i>Gypsophila muralis</i> 'Garden Bride' (Da)	Good bloom in July; not uniform in size all season.		

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<i>Gypsophila muralis</i> 'Gypsy' (AAS '97)	Good bloom in July; not uniform in size, vigor or bloom in September.	Bloom good in July; being overrun by <i>Eragrostis</i> in August but still nice little plants.	Not uniform in size or bloom in July but vigorous plants; beetles eating flowers in August but good vigor.
<i>G. muralis</i> 'Gypsy Deep Rose' (AAS '04)	Didn't do well this year; lacked uniformity in size, bloom and vigor.	More vigor than 'Soraya' in July but no flowers; not too bad in August but some bugs.	Not blooming in July but fairly healthy; not too bad in August with some bugs and fairly good bloom.
<i>Helianthus annuus</i> 'Ring of Fire' (AAS '01)	Not too bad in July with good vigor; by September full of bugs and flowers malformed.	Did alright here: some bugs in August.	Not blooming in July but fairly healthy; not as floriferous as 'Ring of Fire' and some bugs in August.
<i>H. annuus</i> 'Soraya' (AAS '00)	Good bloom on some plants in July; nice in September with very good bloom although height uniformity was poor.		
<i>Helichrysum bracteatum</i> 'Bright Bikini Mix' (Pk)	Not much bloom early and not uniform in height; good bloom in September but a little 'weedy' looking.		
<i>H. monstrosum</i> 'Mix' (Pk)			
<i>Impatiens hawkerii</i> (New Guinea Impatiens) cultivars:			
Sonic Amethyst (FG)	Not too bad in July-only one plant with no blooms; one really nice plant in Sept. otherwise not uniform in size or bloom.	Nice here in July with good bloom and vigor; very poor in August with few blooms.	Four of six almost dead in July; all were dead by August.
Sonic Burgundy (FG)	Not many blooms but fairly uniform in size in July; not uniform in bloom in September-only 4 of 12 with flowers.	Good size uniformity in July but not as floriferous as some others; poor in August with no bloom.	Not uniform in size in July but bloom alright; decline in bloom in August but vigor alright.
Sonic Cattleya (FG)	Not uniform in bloom in July-only 6 of 12 with flowers; not uniform in size or bloom in September.	Good vigor in July but not uniform in bloom; no vigor or blooms in August.	One sickly plant-others with lots of bloom; decline in bloom by August.
Sonic Cherry (FG)	Not many flowers or uniformity in bloom all season.	Not uniform in size or bloom in July; no vigor and few blooms in August.	Nicest 'Sonic' here in July with good bloom and vigor; decline in bloom by August.
Sonic Dark Salmon (FG)	Small plants; not blooming for either evaluation time.	Alright in July but not as floriferous as some others; poor in August.	One died-surviving 5 with good vigor and bloom; one of the better groups in August with fairly uniform bloom.
Sonic Hot Pink (FG)	Only one plant blooming in July; one of the nicer New Guinea groups in Sept. for bloom-9 of 12 plants blooming.	Alright in July but not as vigorous or floriferous as some others; poor in August with no flowers.	Not uniform in vigor or bloom in July; not many blooms in August and not uniform in bloom time.
Sonic Light Pink (FG)	One of the least vigorous and least floriferous 'Sonic' in Fargo.	Smaller plants than some others but uniform in size with good bloom; poor in August with no bloom.	Two of six plants dead in July-others not too vigorous; few blooms in August.
Sonic Orange (FG)	Good bloom in July with 11 of 12 plants blooming; one of the better bloomers in Sept. as well and fairly good size uniformity.	Less vigorous than others in July; poor with no vigor or blooms in August.	Only two of six plants alive in July and those had no vigor; they were doing alright in August but still not too vigorous.
Sonic Pastel 2003 (FG)	One of the more vigorous 'Sonics' in Fargo in July with good bloom; still good vigor and bloom in September.	One really small plant in July otherwise doing alright; poor with no vigor in August.	Not as vigorous or floriferous as some others in July; good vigor in August except for one really small plant.
Sonic Purple (FG)	One of the better bloomers in July but lost vigor by September and 3 of 12 plants died; not uniform in size.	Smaller than other 'Sonics' in July but bloom alright; no vigor and few blooms in August.	Four of six plants really nice-the other two died; alright in August with fairly good bloom.
Sonic Salmon (FG)	Good bloom in July and fairly uniform in size; not uniform in size or bloom in September.	Not uniform in size or bloom in July but fairly floriferous; no vigor in August.	Alright in July with fairly good bloom and size uniformity; decline in bloom in August but vigor ok.
Sonic Scarlet Blush (FG)	Not much bloom all summer but size uniformity good.	Nice in July with good bloom and vigor; poor in August with no blooms.	Good bloom in July and fairly uniform in size; still nice in August with good bloom-one of the better 'Sonics' here.
New Guinea Impatiens (cont.)			
Sonic Sweet Orange (FG)	One of the more vigorous 'Sonics' early with good bloom; lost some vigor by September and bloom not that great.	Good size uniformity in July but not much bloom; poor in August with no bloom.	Not as floriferous or vigorous as some others in July; good vigor in August but few blooms-nice burgundy foliage.
Sonic Zorro Red (FG)	Not as uniform or floriferous as some other Sonics in July; not much bloom in September.	Nice, bright color; uniform in size and bloom in July; poor in August.	Two plants sickly in July-others alright; not too bad in August with ok bloom compared to others.
Super Sonic Cherry Cream (FG)	Bloom better in September than July; not uniform in size, especially early.	Doing alright in July but other 'Super Sonics' are blooming better; poor in August.	Not as uniform or floriferous as others in July; good vigor in August but few blooms.
Super Sonic Coral Ice (FG)	One of the more vigorous 'Super Sonics' in Fargo all season; bloom alright in September.	Good vigor but bloom not uniform in July; poor in August.	Two sickly plants in July-others not uniform in size or bloom; no bloom in August and one really small plant.
Super Sonic Dark Salmon (FG)	Bloom alright early-6 of 12 plants with flowers; still doing fine in September.	One of the smaller 'Super Sonics' but bloom good in July; poor in August.	Not as vigorous or floriferous as 'S. S. Magenta' or 'S. S. Salmon in July; scraggly with few blooms in August.

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Super Sonic Flame (FG)	Doing alright in July; by September was one of the least floriferous of the 'Super Sonics'.	Uniform in size but not bloom time in July; poor in August.	Poor in July-5 of 6 died and the sixth one was half dead; all were dead by August.
Super Sonic Lavender (FG)	Not uniform in size or bloom in July; one of the least floriferous groups in September.	Uniform in size and bloom in July although not many blooms; poor in August.	Plants doing ok in July but bloom poor; not uniform in size or vigor in August.
Super Sonic Light Pink (FG)	Bloom was good in July with 11 of 12 plants blooming; still doing alright in September.	Not uniform in size in July; poor in August.	Not uniform in size or vigor in July but bloom alright; looked alright in August.
Super Sonic Magenta (FG)	Fairly good in vigor and bloom in July with 10 of 12 plants blooming; good vigor in September but less bloom than earlier.	One puny plant in July, others with good bloom and vigor; all were poor in August.	One of the better 'Super Sonics' in July with good bloom; still one of the better groups in August but bloom had declined.
Super Sonic Peach (FG)	One of the nicest 'Super Sonics' in Fargo early with good bloom and vigor; lost some of the vigor and uniformity by September.	Not uniform in size or vigor in July; poor in August.	Two dead plants-others alright but not uniform in size or bloom; scraggly looking in August with few blooms.
Super Sonic Salmon 2004 (FG)	Nice in July with good bloom and vigor; probably the nicest 'Super Sonic' in Fargo in September-10 of 12 plants blooming.	Good bloom and size uniformity in July-one of the better 'Super Sonics'; poor in August.	Similar to 'Super Sonic Magenta' in July but smaller plants and brighter color; alright in August but decline in bloom.
Super Sonic White 2003 (FG)	Not much bloom early but vigor and size uniformity alright; bloom alright in September.	Not as floriferous as other 'Super Sonics' in July but size alright; poor in August with few blooms.	Four of six plants dead or dying by July evaluation; the two surviving plants not too vigorous in August.
<i>Impatiens wallerana</i> cultivars:			
Accent Pastel Mix (GS)	Not too vigorous in July but a little better bloom than others; not uniform in size or bloom in September.		
Accent Sunrise Mix (GS)	Not much bloom; not uniform in size or bloom all season.		
Carnival Mix (Da)	Not much bloom or vigor all season.		
Circus Orange White (PAS)	One of the more vigorous ones in July but not uniform in size and bloom poor; not uniform in size or bloom in September.		
Dazzler Blue Pearl (Ball)	Not uniform in size or bloom all season.		
Fanciful Red (Ball)	One of the least vigorous groups all season.		
Mosaic Coral (GS)	Not uniform in size or bloom all season.		
Showstopper Cotton Candy	Not uniform in size early but bloom alright; not uniform in size or bloom in September.		
Super Elfin Ruby (PAS)	Small but uniform early and bloom alright; one of the more uniform groups in size and bloom in September.		
Swirl Raspberry (PAS)	Smaller than other groups early; not uniform in size or bloom later.		
Victorian Rose (AAS 98)	Not uniform in size or bloom all season.		
<i>Ipomoea alba</i> (Moon Vine) (PK)	Didn't see any flowers all season; vigor good, especially by September.		
<i>I. batata</i> (Sweet potato vine) 'Blackie' (PK)	Good vigor all season but especially nice by September; there were holes in the leaves (slugs?) all season.		
<i>I. batata</i> (Sweet potato vine) 'Marguerite' (Unk)	Bright greenish yellow foliage; good vigor all season-nice ground cover; holes in leaves similar to 'Blackie'.		
<i>I. (Mina) lobata</i> (Firecracker Vine) (PK)	Not uniform in vigor early; very nice in September with good bloom and vigor-vining well.		
<i>I. x multifida</i> (Cardinal Climber) (PK)	Not too vigorous this year, being overrun by firecracker vine.		
<i>I. nil</i> 'Heavenly Blue' (PK)	Pretty blue flowers; doing alright in July; good vigor in September but would like to see more flowers.		

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<i>I. nil</i> 'Mimbar Rose' (Pk)	Nice, variegated foliage but not really a climber; pretty pink flowers but not many of them.	Did better here than in Fargo with good vigor and bloom; flowers not as hidden as they were in Fargo.	Not much vigor in July; better in August but flowers somewhat hidden in foliage.
<i>I. nil</i> 'Sunrise Serenade' (Ball)	Not too vigorous in July; better vigor in September but flowers hidden under the foliage.		
<i>I. purpurea</i> 'Star of Yelta' (Pk)	Not as vigorous or floriferous as other <i>pomoeas</i> in July; nice in September with good bloom and vigor.		
<i>I. quamoclit</i> (Cypress Vine) 'Mix' (Pk)	Not much vigor all season.		
<i>Lablab purpureus</i> (<i>Dolichos lablab</i>) (Hyacinth Bean) (Pk)	Good vigor in July but no blooms; nice show of flowers and seed pods in Sept. but is very vigorous and needs more room.		
<i>Limonium sinuatum</i> 'Soiree Mix' (Pk)	Not uniform in size or bloom early; very nice in September-nice bushes of color.		
<i>Lobularia maritima</i> 'Golf' (Cl)	Very good bloom in July but not uniform in size; still good bloom in September but not uniform in size or vigor.		
<i>L. maritima</i> 'Pastel Carpet' (Pk)	Four of 12 plants died by July evaluation; remaining plants had good bloom but weren't uniform in size.		
<i>L. maritima</i> 'Snow Crystals' (Pk)	Very good bloom early but not uniform in size; 3 of 6 dead by September and remaining ones not uniform in size.		
<i>Melampodium paludosum</i> 'Showstar' (Ben)	Doing alright in July but not uniform in size; really good bloom in September but still not uniform in size.		
<i>Nicotiana glauca</i> 'Domino Mix' (Pk)	Not uniform in size or bloom all season.		
<i>N. x sanderae</i> 'Perfume Mix' (Pk)	Not uniform in size or bloom all season.		
<i>Osteospermum ecklonis</i> 'Passion Mix' (AAS '99)	Good vigor all season but not uniform in size or bloom.		
<i>Pelargonium x hortorum</i> - Zonal geranium cultivars:	Lacked size uniformity all season; decline in bloom by September.	Doing alright in July but better bloom and vigor in August.	Not much bloom in July but fairly uniform in size; good bloom and size uniformity in August-nice.
Alba 2005 (FG)	Healthy with good bloom all season but not uniform in size. Good vigor early but size not uniform; good bloom in September and size uniformity better.	Uniform in size in July but not much bloom; very nice in August with good bloom, size and vigor.	Not much bloom in July; very nice in August with good bloom, vigor and size uniformity.
Appleblossom Orbit (GS)			
Black Velvet Rose (AAS '02)			
Zonal geraniums (cont.)			
Bravo (FG)	Nice bright color-not uniform in size in July but bloom alright; decline in bloom later and smaller plants than other geraniums.	Small but uniform in size in July; good vigor in August but not as floriferous as other geraniums here.	Small and not much bloom in July; better in August with nice bloom and size uniformity.
BullsEye Cherry (Ball)	Not uniform in size all season; chocolate colored leaves a nice contrast with flowers.	Smaller plants than 'BullsEye Light Pink'; good vigor in August but bloom not as good as other geraniums.	Not uniform in size or bloom for July evaluation; very nice in August-flower color was very showy.
BullsEye Light Pink (Ball)	Chocolate leaf color nice contrast with pink; better bloom in July; size uniformity better than 'BullsEye Cherry'.	Uniform in size in July but not much bloom; good vigor and bloom in August.	Uniform in size in July with fairly good bloom; nice in August but not quite as floriferous as some other geraniums.
Calypso 2001 (FG)	Fairly uniform in size in July but 2 of the 12 plants really small; bloom was a little better in July than September.	Not uniform in size all season; bloom better in August.	Not much bloom in July; much better in August with good bloom and vigor.
Cherry Elite (GS)	Not uniform in size all season but bloom was alright.		
Deep Salmon Orbit (GS)	Good bloom all season but not uniform in size; vigor was better in September than July.		
Dolce Vita 2004 (FG)	Very nice in July with good size and bloom uniformity; not as nice in September with a decline in bloom and size uniformity.	Not much bloom in July but good vigor and size uniformity; nice show in August with good bloom and vigor.	Healthy but not much bloom in July; good vigor and bloom in August but dead heads more obvious.

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Flamingo (FG)	Not uniform in size all season; bloom similar for both evaluations.	Uniform in size but not bloom in July; nice in August but not as floriferous or vigorous as some other geraniums.	Fairly good bloom and size uniformity in July but nicer in August.
Glow Orbit (GS)	Not uniform in size, vigor or bloom all season.	Uniform in size in July but not much bloom; good vigor in August but not as much bloom as others.	Poor bloom in July but healthy; nice show in August with good bloom.
Himalaya Red (FG)	Good bloom and show in July; decline in bloom in September but still vigorous and healthy.		
Maverick Light Salmon (GS)	Good vigor in July and bloom was alright; much nicer in September with good bloom and size uniformity.		
Maverick Pink (GS)	Not uniform in size all season but bloom was alright.		
Maverick Red (GS)	Not uniform in size or bloom all season; bloom was better in July.		
Maverick Star (GS)	Nicer in July with fairly good bloom, vigor and size uniformity; not uniform in size, vigor or bloom by September.		
Maverick Violet (GS)	Not uniform in size early but good bloom and vigor; by Sept., 2 of 6 plants dead but remaining 4 were nice.		
Maverick White (GS)	Not uniform in size early but bloom was alright; dead heads more obvious in September.		
Multibloom Capri (GS)	Bloom alright in July but not as vigorous as 'Deep Salmon Orbit'; not uniform in size in September but bloom alright.		
Multibloom Red (GS)	Not uniform in size or bloom all summer; not as vigorous as other geraniums in July.		
Multibloom Salmon (GS)	Smaller plants than other geraniums in July; not uniform in size or bloom in September.		
Red Orbit (GS)	Not uniform in size, bloom or vigor all season.		
Rocky Mountain Dark Red (FG)	Not as vigorous as 'Rocky Mountain Scarlet' in July but nice, bright red color; bloom declined in September but still nice.	Not much bloom in July; good show in August with better bloom and vigor than July.	Good vigor early but few blooms; much nicer show in August.
Rocky Mountain Deep Rose (FG)	Not uniform in size in July but flower heads were huge; smaller and less uniform than other geraniums in September.	Pretty deep, bright pink color; nice in August but not as floriferous as some other geraniums.	Not much bloom early but size uniformity good; good vigor in August but not as much bloom as others.
Rocky Mountain Lavender (FG)	One of the nicest 'Rocky Mountain' geraniums in Fargo all season with good bloom, vigor and size uniformity.	Fairly uniform in size and bloom in July but better in August with good bloom and vigor.	Doing alright in July but much nicer in August with better bloom, vigor and size uniformity.
Rocky Mountain Lavender Pink 2004 (FG)	Nice in July with good bloom; lacking size uniformity in September but bloom was alright.	Better bloom in August than July.	Much nicer in August than July with good bloom, vigor and size uniformity.
Zonal geraniums (cont.)			
Rocky Mountain Light Pink (FG)	Not uniform in size or bloom all season; pretty light pink/dark pink color contrast.	Uniform in size in July but not much bloom; very nice in August with good bloom and vigor.	Not uniform in bloom or size in July; doing alright in August but other geraniums had better bloom and size uniformity.
Rocky Mountain Light Salmon (FG)	Not uniform in size all season and not as floriferous as other geraniums.	Not planted here-plants were forgotten in Fargo when loaded up.	Not uniform in size but plants healthy; good vigor in August but not as floriferous as other geraniums.
Rocky Mountain Magenta (FG)	Good vigor and bloom in July; still nice in September but bloom declined a bit.	Doing alright in July but much better bloom and vigor in August.	One of the better bloomers in July; good vigor in August but not as floriferous as some others.
Rocky Mountain Orange (FG)	Not uniform in size or bloom in July but nice, bright orange color; still not uniform in size in September but bloom alright.	Uniform in size in July but not bloom; better in August with good bloom and vigor.	Not much bloom in July but plants healthy and vigorous; good vigor and bloom in August.
Rocky Mountain Red 2003 (FG)	Very nice in July with good vigor and bloom; decline in bloom in September but still vigorous and uniform.	Doing alright in July; not as floriferous as 'Rocky Mountain Dark Red' but good vigor in August.	Not uniform in size and not much bloom in July; not as vigorous or floriferous as others in August.
Rocky Mountain Royal Red (FG)	Good vigor but not as floriferous as other geraniums in July; smaller plants in Sept.-not as uniform as others.	Uniform in size in July but not much bloom; not as floriferous as other red geraniums in August but good vigor.	Not uniform in size all season and not as floriferous as other geraniums.
Rocky Mountain Salmon (FG)	Not uniform in size or bloom time all season and not as vigorous as most of the other 'Rocky Mountain' geraniums.	Healthy but not uniform in size in July; good vigor, bloom and uniformity in August.	Good size and uniformity in July; nicer in August with better bloom and vigor.

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Rocky Mountain Salmon Rose (FG)	Bloom alright in July but not uniform in size; bloom declined a bit by September.	Vigorous plants in July but one of the least floriferous groups of geraniums; much nicer in August with good bloom and show.	Good vigor in July but not much bloom; much nicer in August with better bloom and vigor.
Rocky Mountain Scarlet (FG)	Very nice in July with good vigor and bloom; still one of the more vigorous red geraniums in Sept. but bloom declined.	Similar to other geraniums here in July; not as floriferous or vigorous as other geraniums in August.	Good vigor in July but really nice in August with very good bloom.
Rocky Mountain Violet (FG)	Not as vigorous or as uniform in size as 'R. M. Lavender' but nice, bright color; doing alright in September.	Less vigor than other 'Rocky Mountain' cvs. in July but uniform in size; bloom and size uniformity not as good in August.	Small but uniform plants in July-not blooming; nice in August but not as floriferous as some others.
Rocky Mountain White (FG)	Fairly uniform in size and bloom in July; good vigor in September.	Healthy in July but not much bloom; good vigor and bloom in August-nice show.	Did alright in July but better bloom and show in August.
Rose Orbit (GS)	Good vigor and bloom in July but not uniform in size; nicer in September with good bloom and vigor.		
Scarlet Elite (GS)	Fairly uniform in size and bloom in July; bloom still alright in September but lost size uniformity.		
Scarlet Orbit (GS)	Did alright all season; not as vigorous as others in September.		
Tango Fire (FG)	Bright orange-red color-very nice in July with good bloom and vigor; nice in September but bloom declined a bit.	Nice in July but better bloom and show in August.	Alright in July but not uniform in size; bloom better in August but size uniformity still lacking.
White Elite (GS)	Not as vigorous or floriferous as others all season.		
White Orbit (GS)	Not as vigorous as 'Maverick White' and not uniform in size all season.		
Exotic geraniums			
Graffiti Fire (FG)	Nice in July with a good show of red; decline in bloom in September but still nice.	Nice all season with good bloom, vigor and uniformity.	Doing alright in July but not as floriferous as others; very, very nice in August-showy, vigorous- a top performer.
Graffiti Pink (FG)	Not as uniform in size as the other 'Graffiti's' in July; least vigorous, floriferous and uniform of the 'Graffiti's' in September.	Nice all season with good bloom, vigor and size uniformity.	Best of the three 'Graffiti's' for bloom in July but not uniform in plant size; smallest of the three in August but bloom very nice.
Graffiti Salmon Rose (FG)	One of the nicest cultivars in July-very nice show; decline in bloom by September but still good size uniformity and vigor.	Least floriferous of the three 'Graffiti' geraniums in July; slightly more vigor than the other two in August-very nice.	Healthy and uniform in July but not as many blooms as 'Graffiti Pink'; nice in August but not quite as showy as 'Graffiti Fire'.
<i>Pelargonium peltatum</i> - Ivy Geraniums			
Black Magic (FG)	Nice ground cover in July with good bloom and vigor; still good vigor in September but very few flowers.	Not as vigorous as other ivies all season and bloom not that great; nicer in Fargo and Williston.	Not much bloom in July but vigor good; nice in August with good bloom and vigor-better than in Dickinson.
Flair (FG)	Not as vigorous or floriferous as other ivies in July; smaller than others in September but still looked alright.	Smaller plants than others but uniform in size in July; size uniformity good in August but not as floriferous as others.	One of the least vigorous and least floriferous ivies in July; still not as vigorous or floriferous as others in August.
Ivy geraniums (cont.)			
Holiday Purple Dream (FG)	Fairly uniform in size and bloom in July; more vigor and bloom than 'Holiday Ruby Dream' in September but decline in bloom.	Just starting to bloom for July evaluation-fairly uniform in size; better bloom in August.	Healthy but not much bloom in July; much better in August with good bloom and vigor.
Holiday Ruby Dream (FG)	Did alright all season; similar to 'Holiday Purple Dream' in September but slightly less bloom and vigor.	Uniform in size all season; bloom alright in August but others are doing a little better.	No blooms in July but healthy; much nicer in August with good bloom and vigor.
Luna 2005 (FG)	Not as uniform in size or bloom as 'Black Magic' in July and color not as showy as others; alright in Sept.	Smaller than other ivy geraniums in July but uniform in size; good bloom in August but a few plants with yellowing leaves.	Uniform in size in July but not much bloom; not as vigorous or showy as others in August but good bloom.
Maxime (FG)	Not as uniform or vigorous as 'Black Magic' in July but still nice; good vigor in September but decline in bloom.	Nice ivy all season with bloom better than most; particularly nice in August with very good bloom.	Not much bloom in July but better than other ivies; good bloom in August but not uniform in size.
Molina 2005 (FG)	Looked good in July; not very uniform in size in September but good vigor.	Healthy in July but not blooming; very nice in August with good bloom and vigor.	Fairly vigorous in July but few blooms; very nice in August with good bloom; vigor and size uniformity.
Purple Dream (FG)	A top performer in July with good bloom, vigor and size uniformity; decline in bloom by September but vigor still good.	Not as uniform in size in July as some others; not as vigorous as 'Purple Blizzard' in August but still alright.	Not as vigorous as some others in July and not much bloom; very nice in August with good bloom and vigor.
Ruby Dream (FG)	Nice in July with good bloom and vigor; not as vigorous as 'Purple Dream' in September and decline in bloom.	Not uniform in size all season; bloom and vigor better in August.	Similar to 'Purple Dream' but no blooms in July; very nice in August with good bloom and vigor.
Tutti Frutti (FG)	Good bloom in July-not uniform in size but a nice ground cover; best of the ivies in Fargo in September.	Fairly uniform in size in July and bloom a bit better than others; very nice in August with good bloom and vigor.	Uniform in size in July but not much bloom; very nice in August with good bloom and vigor.

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Blizzard Cascades:			
Purple Blizzard (FG)	Very nice in July with good bloom and vigor; bloom declined by September evaluation but vigor still good.	Only 2 of 6 with flowers in July but size uniformity good; very nice in August with good bloom and vigor.	Not much bloom in July but plants healthy; good vigor in August-bloom good but some Ivy geraniums were better.
<i>Pennisetum glaucum</i> 'Purple Majesty' (AAS '03)	Root bound when planted and most plants died.	Not uniform in size or vigor in July; not uniform in vigor in August-two really nice plants.	Not growing much by July evaluation; not uniform in size or vigor in August-one really nice plant.
<i>P. setaceum</i> (Fountain Grass) (PK)	Not uniform in size this year-has done better in the past but many plants nice and showy.	Uniform in size all season; bloom better in August but was nice all season.	Better in August when plumes were better; good vigor all season.
<i>Pentas lanceolata</i> 'Graffiti Bright Red' (Ben)	Poor with no vigor and not much bloom all season.	Poor with no vigor or bloom all season.	Poor with no vigor or bloom all season.
<i>P. lanceolata</i> 'Graffiti Pink' (Ben)	Poor with no vigor and not much bloom all season.	Poor with no vigor or bloom all season.	Poor with no vigor or bloom all season.
<i>P. lanceolata</i> 'Graffiti Violet' (Ben)	Poor with no vigor and not much bloom all season; the only one with flowers during the September evaluation.	Poor with no vigor or bloom all season.	Poor with no vigor or bloom all season but this was the best of the group of pentas in Williston.
<i>P. lanceolata</i> 'Graffiti White' (Ben)	Poor with no vigor and not much bloom all season.	Poor with no vigor or bloom all season.	Poor with no vigor all season.
<i>Petunia hybrida</i> - Floribunda petunias:			
Celebrity Chiffon Morn (AAS '95)	Not uniform in size or bloom early; not very healthy in September and not much bloom.		
Celebrity Watercolors Mix (Bod)	No vigor and not much bloom all season-only pink flowers-not much of a mix.		
Madness Red and White (Ball)	Not uniform in size, bloom or vigor all season.		
<i>Petunia hybrida</i> - Grandiflora petunias:			
Double Cascade Blue (PAS)	Nice double blooms but lacked uniformity in size; bloom seemed better for the July evaluation.	Not as floriferous or uniform in size as other petunias in July; nice and full in August.	Vigor good early but bloom not as good as in Dickinson; alright in August but other petunias were more floriferous.
Dreams Burgundy Picotee (PAS)	One of the more vigorous groups of petunias in July with good bloom; still nice in September with good bloom and vigor.	Nice all summer with good bloom and vigor.	Not doing as well here in July as it was in Dickinson; by August, though, it was very vigorous with good bloom.
Dreams Sky Blue (PAS)	Good bloom all season but lacked uniformity in size.	Nice all summer with good bloom and vigor.	Looked good early with fairly good bloom and uniformity; very nice in August-had filled out more.
Grandiflora petunias (cont.)			
Limbo Violet (AAS '04)	Not uniform in size, bloom or vigor in July; by September bloom was good but not uniform in size-did better last year.	One of the best plants in the Dickinson trials in July with good bloom and vigor; some yellowing and loss of vigor by August.	Not as nice here in July as in Dickinson; very nice in August with good bloom and vigor.
Pirouette Red (PAS)	Not uniform in size or bloom all season but flowers are a nice double red and white.		
Stars and Stripes Mix (Ball)	Really bad size and bloom uniformity; a few plants had died by September and others not uniform in size.		
Ultra Limited Edition Mix (GS)	Not uniform in size, bloom or vigor all season.		
<i>Petunia hybrida</i> - Hedgeflora petunias:			
Tidal Wave Purple (Ball)	Very nice in July with good vigor and bloom; by September had declined in bloom and size uniformity was lacking.		
Tidal Wave Silver (AAS '02)	Nice all season with good bloom, vigor and size uniformity.	Vigorous but not uniform in size or bloom in July; very vigorous in August with good bloom (too vigorous?).	Not as vigorous here as in Dickinson in July and fewer blooms; very nice in August with good bloom and vigor.
<i>Petunia hybrida</i> - Milliflora petunias:			
Fantasy Carmine (GS)	Not uniform in size, vigor or bloom all season.		

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Fantasy Crystal Light Salmon (GS)	Not uniform in size, vigor or bloom all season.		
Fantasy Crystal Red (GS)	Not uniform in size or bloom early; no bloom in September.		
Fantasy Pink (GS)	Not uniform in size or bloom early; only one really nice plant (of six) in September.		
Fantasy Pink Morn (GS, AAS '96)	Similar to other 'Fantasy' cultivars-not too vigorous and not much bloom.		
Fantasy Red (GS)	Small plants in July but more uniform in size than others; not uniform in size or bloom in September.		
Fantasy Salmon (GS)	One of the nicer groups in July but still not uniform in size or bloom; not much bloom or vigor in September.		
<i>Petunia hybrida</i> - Multiflora Petunias:			
PrimeTime Lavender (GS)	Not uniform in vigor in July but bloom alright; still not uniform in size or bloom in September.		
PrimeTime Red (GS)	Smaller than 'PrimeTime Lavender' in July and not much bloom; not uniform in size or bloom in September.		
PrimeTime Salmon Morn (GS)	Not uniform in size early and not much bloom; still not uniform in size or vigor in September.		
<i>Petunia hybrida</i> - Prostrate or spreading petunias:			
Blue Wave (AAS '03)	Not much bloom or vigor all season.	Not much bloom and not uniform in size in July; good bloom in August but not uniform in size.	More vigor here than Dickinson but few blooms; grown together with others in August and can't tell which is which.
Easy Wave Blue (PAS)	Not uniform in size or bloom all season; a few nice plants but others not as vigorous.	Not much bloom in July and not uniform in size; much better by the second evaluation with good bloom and vigor	Not too vigorous early; had grown together with 'Blue Wave' by the end of the summer and was hard to distinguish the two.
Easy Wave Salmon (PAS)	Poor with no vigor all season.		
Lavender Wave (AAS '02)	Not much vigor all season; has done better in the past.	Not much bloom in July and not uniform in size; not as floriferous or vigorous as some other petunias.	More vigor here than in Dickinson but few flowers; very nice in August with good vigor and bloom.
Spreading petunias (cont.)			
Misty Lilac Wave (Pk)	Not too vigorous in July but bloom better than other spreading petunias; not uniform in size or bloom in September.		
Pink Wave (PAS)	Small with not much vigor all season.		
<i>Phaseolus coccineus</i> 'Scarlet Emperor' (Pk)	Good vigor all season but never bloomed.		
<i>Plectranthus argenteus</i> 'Silver Shield' (PAS)	Nice ground cover here all season with good vigor and uniformity of size.	Nice ground cover all season; good vigor and size uniformity	Small during the July evaluation but very nice in August with good vigor and uniformity.
<i>Portulaca grandiflora</i> 'Extra Orange' (Gr)	Least bloom and vigor of the portulaca in the Fargo trials.	Not blooming for the July evaluation; size uniformity poor all season and not as floriferous as other portulaca in August.	Not uniform in size in July and just a few flowers; good vigor and bloom in August.
<i>P. grandiflora</i> 'Margarita Peppermint' (PAS)	Not uniform in size all season; bloom best for the September evaluation but size uniformity very poor.	Not blooming for the July evaluation but fairly good size uniformity; better bloom in August.	Not uniform in size and just starting to bloom for the July evaluation; not uniform in size or bloom in August.
<i>P. grandiflora</i> 'Margarita Rosita' (AAS '01)	Not uniform in size all season; best bloom of the portulaca all season.	Just starting to bloom for July evaluation but healthy and uniform; good bloom in August.	Small plants just starting to bloom in July; not uniform in size or bloom in August.
<i>P. grandiflora</i> 'Margarita Scarlet' (PAS)	Not uniform in size; bloom alright.		
<i>Rudbeckia hirta</i> 'Autumn Colors' (Ben)	Good bloom all season but size uniformity lacking in July and plants leaning in September.		

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<i>R. hirta</i> 'Cherokee Sunset' (AAS '02)	Not uniform in size or bloom in July; good bloom in September and fairly uniform in size.	Not blooming in July but healthy and uniform in size; good bloom in August but some stems falling over.	Nice plants in July but not blooming; very nice in August with good bloom and vigor.
<i>R. hirta</i> 'Cordoba' (Ben)	Nice all season with good bloom and vigor; plants leaning a bit in September but bloom still good.		
<i>R. hirta</i> 'Indian Summer' (AAS '95)	Not uniform in size or bloom in July; nice bloom in September but some plants leaning over.		
<i>R. hirta</i> 'Maya' (Ben)	Better during July evaluation with good bloom; size uniformity was poor all season.	Not blooming early but healthy and fairly uniform in size; by August it was much better with good bloom.	Nice plants in July but not blooming yet; good bloom in August but one really small plant.
<i>R. hirta</i> 'Prairie Sun' (AAS '03)	Good bloom all season but plants leaning over in September.	Not blooming for July evaluation but healthy plants; good bloom by August but not uniform in size.	Nice plants in July but not blooming; very nice in August with good bloom and vigor.
<i>R. hirta</i> 'Toto Gold' (Ben)	Nicer in July with good bloom and fairly uniform in size; lacking uniformity in size and bloom in September.		
<i>R. hirta</i> 'Toto Lemon' (Ben)	Similar to 'Toto Gold' all season.		
<i>R. hirta</i> 'Toto Rustic' (Ben)	Less vigor than other 'Toto' cultivars all season.		
<i>Salvia coccinea</i> 'Forest Fire' (Pk)	Not uniform in size or vigor all season.		
<i>S. farinacea</i> 'Reference' (Ben)	Good bloom, vigor and size uniformity all season.		
<i>S. farinacea</i> 'Victoria' (Pk)	Good bloom but not uniform in size all season.		
<i>S. patens</i> 'Blue Angel' (Ben)	Just starting to bloom in July-good vigor; very nice in September with good bloom and vigor-neat blue flowers.		
<i>S. splendens</i> 'Blue Ribbon' (PAS)	Not uniform in vigor or bloom in July; better bloom in July than September.		
<i>S. splendens</i> 'Hotline Mix' (Pk)	Not as floriferous as 'Salvatore' in July; not uniform in size, vigor or bloom in September.		
<i>S. splendens</i> 'Salsa Mix' (GS)	Not uniform in size, vigor or bloom all season.		
<i>Salvia splendens</i> 'Salvatore' (Ben)	Good vigor and size uniformity all season; bloom better during the July evaluation-a little past peak bloom by early September.	Not blooming for July evaluation but healthy plants; very nice in August with good bloom, uniformity and vigor.	Small in July; not uniform in size in August and not much bloom.
<i>Scabiosa atropurpurea</i> 'Giant Imperial Mix' (Pk)	Not uniform in bloom or size in July but vigor good; bloom good in September but not uniform in size.		
<i>S. atropurpurea</i> 'QJS Scarlet' (Pk)	Not much bloom in July and not uniform in size; good bloom in September but still not uniform in size.		
<i>Senecio cineraria</i> 'Cirrus' (Pk)	Nice all season with good uniformity and vigor.		
<i>S. cineraria</i> 'Silverdust' (Pk)	Nice all season with good uniformity and vigor.		
<i>Solenostemon scutellaroides</i> 'Carefree Mix' (Pk)	Not too vigorous all season and they all look the same.		
<i>S. scutellaroides</i> 'Park's Brilliant Mix' (Pk)	Not uniform in size or vigor all season.		
<i>Spilanthes oleracea</i> 'Peek-A-Boo' (PAS)	Nice all season with good vigor, bloom and size uniformity.		
<i>Stipa tenuissima</i> 'Angel Hair' (Pk)	Very nice, especially by September with good vigor and size uniformity.		
<i>Tagetes erecta</i> 'Antigua Gold' (GS)	Good size uniformity but bloom not as good as some others; nice in September but dead heads detracted.		

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<i>T. erecta</i> 'Antigua Orange' (GS)	Very nice in July with good bloom, etc.; still nice in September but dead heads detracted.		
<i>T. erecta</i> 'Antigua Yellow' (GS)	Good bloom but not uniform in size all season.		
<i>T. erecta</i> 'Inca II Gold' (GS)	Very nice in July with good bloom and uniformity; still nice in September but dead heads detracting.		
<i>T. erecta</i> 'Inca II Orange' (GS)	Very nice in July with good bloom and uniformity; still nice in September but dead heads detracting.		
<i>T. erecta</i> 'Inca II Primrose' (GS)	Not as floriferous as others in July and not as uniform in size; nice in September but dead heads detracting.		
<i>Tagetes erecta</i> 'Inca II Yellow' (GS)	Nice in July with good bloom and vigor; still nice in September but dead heads detracting.		
<i>T. erecta</i> 'Park's Whopper Yellow' (Pk)	Good bloom in July but not uniform in size; nice in September but dead heads detracting.		
<i>T. erecta</i> 'Perfection Gold' (GS)	Nice in July with good bloom, etc; still nice in September but dead heads detracted from appearance.		
<i>T. erecta</i> 'Perfection Yellow' (GS)	Similar to 'Perfection Gold'.		
<i>T. patula</i> 'Bonanza Gold' (PAS)	Not as uniform in size as others in July; very nice in September with good bloom and vigor.		
<i>T. patula</i> 'Bonanza Harmony' (PAS)	Nice bloom, vigor and uniformity in July; still nice in September but smaller plants than other French marigolds.		
<i>T. patula</i> 'Bonanza Orange' (PAS)	Good size uniformity in July but not as floriferous as others; nice in September but one plant with Aster Yellows.		
<i>T. patula</i> 'Durango Red' (PAS)	One plant with Aster Yellows in July-otherwise good bloom and uniformity; good bloom in Sept. but not uniform in size.		
<i>T. patula</i> 'Durango Tangerine' (PAS)	Nice all season with good bloom, vigor and size uniformity.		
<i>Tagetes patula</i> 'Golden Guardian' (Pk)	This was a huge bush by the end of the season and was crowding other plants.		
<i>T. patula</i> 'Tiger Eyes' (Pk)	Nice all season with good bloom, vigor and size uniformity.		
<i>Tanacetum parviciflorum</i> 'Silver Feather' (Pk)	Fairly uniform in size in July and good vigor; very nice by September.		
<i>Thunbergia alata</i> (Black-eyed Susan Vine) (Pk)	Good vigor early but few flowers; nicest in September with good vining and bloom.		
<i>Tithonia rotundifolia</i> 'Fiesta del Sol' (AAS '00)	Not uniform in size in July and few flowers; bushy in September; bloom alright but not uniform in size.	Not blooming for July evaluation but uniform in height; not uniform in size or bloom in August.	Small with no vigor in July; good vigor in August but only 1 flower visible.
<i>Trachelium caeruleum</i> 'Jemmy Antique Rose' (Ben)	Some bloom early-uniform in size but not vigor; blooming in September but scrawny looking.		
<i>T. caeruleum</i> 'Jemmy Royal Purple' (Ben)	Similar to 'Jemmy Antique Rose'.		
<i>T. caeruleum</i> 'Jemmy Violet' (Ben)	Similar to 'Jemmy Antique Rose'.		
<i>T. caeruleum</i> 'Jemmy White' (Ben)	Similar to others in July; best bloom and vigor of the <i>Trachelium</i> in September.		
<i>Verbena bonariensis</i> (Pk)	Just starting to bloom for July evaluation-good vigor; very nice in September with good bloom and vigor.		
<i>V. x hybrida</i> 'Crystal Ball Mix' (PAS)	Good bloom but not uniform in size all season.		

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<i>V. x hybrida</i> 'Quartz Red Eye' (PAS)	One of six plants died; looked alright for both evaluations.		
<i>V. x hybrida</i> 'Quartz Waterfall Mix' (PAS)	Not uniform in size all summer; mostly blue color-not much of a mix.		
<i>V. tenuisecta</i> 'Imagination' (Pk)	Nice all season with good vigor, bloom and size uniformity.		
<i>Viola witrockiana</i> 'Ultimo Morpho' (AAS '02)	Plants blooming in July even though not too vigorous; not uniform in size in September-flowers pretty.	Not uniform in size or bloom in July; rabbits have been eating in August.	Much nicer here than in Dickinson-good bloom and vigor; very nice in August with good bloom.
<i>Zinnia angustifolia</i> 'Crystal White' (AAS '97)	Good bloom in July but not uniform in size; not uniform in size or bloom in September.		
<i>Z. elegans</i> 'Benary's Giant Mix' (Ben)	Not as floriferous as some others in July and not uniform in height; very good bloom in September.		
<i>Z. elegans</i> 'Envy' (Pk)	Good size uniformity and bloom in July but pale green flower color blends in with foliage; still good bloom in September.		
<i>Z. elegans</i> 'Giant Cactus Mix' (Pk)	Not as floriferous as some others in July; good bloom in September but not uniform in size.		
<i>Z. elegans</i> 'Magellan Coral' (AAS '05)	Good bloom all season but size uniformity could be better.	Each plant with blooms in July; nice big blooms in August but not uniform in size or bloom.	Recovering from cold weather for July evaluation-small with no blooms; good bloom in August but lacking size uniformity.
<i>Z. elegans</i> 'Oklahoma Mix' (Pk)	Not uniform in height all season but good bloom, especially in September.		
<i>Z. elegans</i> 'Park's Picks Mix' (Pk)	Good color mix; bloom not as good as others in July but very nice in September.		
<i>Z. elegans</i> 'Peter Pan Mix' (GS)	Good bloom all season and fairly good size uniformity.		
<i>Z. elegans</i> 'Short Stuff Mix' (GS)	Good bloom all season; size uniformity was better in July than September.		
<i>Zinnia elegans</i> 'Swizzle Cherry and Ivory' (Pk)	Not uniform in size all season; pretty flower color combination.		
<i>Z. elegans</i> 'Swizzle Scarlet and Yellow' (Pk)	Pretty flower color but not uniform in size all season; good bloom in September.		
<i>Z. elegans</i> 'Zinnita Orange' (Ben)	Not uniform in size or bloom in July; good bloom in September but still not uniform in size.		
<i>Z. elegans</i> 'Zinnita White' (Ben)	Same as 'Zinnita Orange'.		
<i>Z. elegans</i> 'Zinnita Yellow' (Ben)	Same as 'Zinnita Orange'.		
<i>Z. tenuifolia</i> 'Red Spider' (Pk)	Nice in July with good bloom and vigor; some dying in September but bloom good on the rest.		
<i>Z. hybrid</i> 'Profusion Cherry' (AAS '99)	Good bloom and vigor all season.		
<i>Z. hybrid</i> 'Profusion Orange' (AAS '99)	Not uniform in size in July-one really big plant; good bloom in September but still not uniform in size.		
<i>Z. hybrid</i> 'Profusion White' (AAS '01)	Fairly good size uniformity and bloom in July; nice in September but 3 of 12 plants died.	Just starting to bloom for July evaluation; good bloom in August but size uniformity not that great.	Small in July with no blooms; very nice by August with good bloom and vigor.

2004 Seed Source List

(An 'R' after the seed source abbreviation indicates a retail company while a 'W' indicates a wholesale or breeding company.)

Abbreviation	Company Name and Address	Abbreviation	Company Name and Address	Abbreviation	Company Name and Address
AAS	All-America Selections 311 Butterfield Road Suite 311 Downer's Grove, IL 60515	Da (W)	Daehnfeldt, Inc. P.O. Box 38 North Manchester, IN 46962	PAS (W)	PanAmerican Seed 622 Town Road West Chicago, IL 60185-2698
Ball (W)	Ball Seed Company 622 Town Road West Chicago, IL 60185-2698	FG (W)	Fischer USA, Inc. 6899 Winchester Circle, Suite 102 Boulder, CO 80301	Pk (R)	Park Seed Co. P.O. Box 31 Greenwood, SC 29646
Ben (W)	Ernst Benary of America, Inc. 1444 Larson Street Sycamore, IL 60178	Gri (W)	Grimes Seeds and Plants 11335 Concord Hambden Road Concord, OH 44077	Unk	Unknown
Bod (W)	Bodger Seeds, LTD 1800 North Tyler Avenue South El Monte, CA 91733	GS (W)	Goldsmith Seeds, Inc. P.O. Box 1349 Gilroy, CA 95021	WG (W)	Waller Genetics P.O. Box 70 Guadalupe, CA 93434