

# Annual Flower and Perennial Landscape Plant Evaluations 1997

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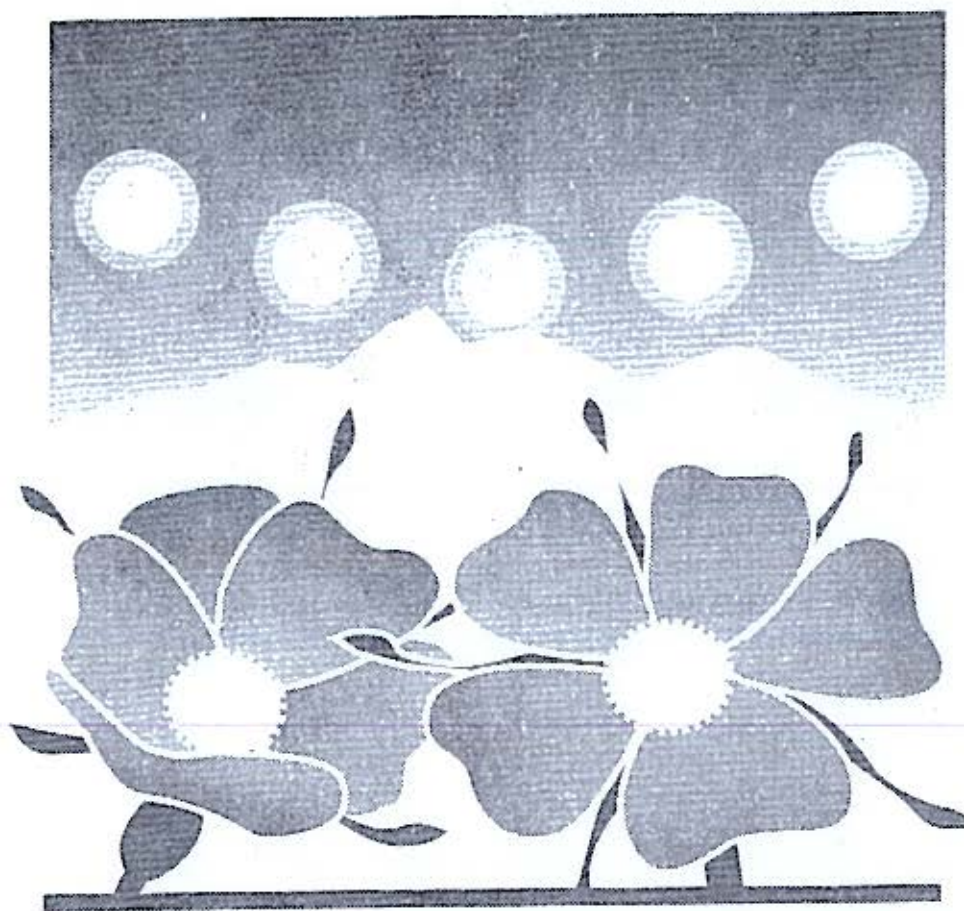
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GEORGESON BOTANICAL GARDEN

## Table of Contents

Introduction .....	3
Explanation of plant evaluation tables .....	4
<b>Table 1.</b> Weather records for the test years .....	6
<b>Table 2.</b> All plant materials evaluated in 1997 .....	8
Herbaceous perennials .....	8
Ferns .....	16
Ornamental grasses .....	18
Woody perennials .....	18
<b>Table 3.</b> All plants that have been evaluated but did not survive the minimum number of test years .....	30
Herbaceous perennials .....	30
Ferns .....	37
Ornamental grasses .....	38
Woody perennials .....	39
<b>Table 4.</b> Plantings from 1997 that have not yet been evaluated for winter survival .....	42
Herbaceous perennials .....	42
Ornamental grasses .....	43
Woody perennials .....	43
<b>Table 5.</b> Annual flowers evaluated in 1997 .....	44
<b>Appendix 1.</b> Commercial sources and organizations .....	58
Map of GBG .....	59

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## Introduction

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In 1989, a systematic evaluation of woody and herbaceous perennial landscape plants was begun at the University of Alaska Fairbanks Georgeson Botanical Garden (64°51'N, 147°52'W). These evaluations were expanded to include annual flowers in 1992 and ferns in 1993. The purpose of this research is to identify hardy perennials capable of surviving in subarctic environments; to evaluate the ornamental potential of perennials and annuals; and to fulfill a growing demand for information on landscape plant materials by homeowners, commercial growers, and landscapers.

The collection includes both indigenous and non-indigenous species that were obtained as plants or propagules from wild stands, botanical gardens, plant materials centers, commercial nurseries and seed companies in North America and the circumpolar North (Appendix 1). Plants are grown on a south-facing slope, elevation 475 to 487 feet (145–148 meters). Soils are classified as Fairbanks silt-loam and have been cultivated since about 1910. All plants receive full sun except those located in the shade house (Plot No 1). Plants are watered with overhead irrigation as needed. Weed control is by hand, rototiller, fresh grass clipping mulch and Roundup®.

The perennials are grown in the Herbaceous Perennial and Woody Ornamental Test Garden (see map on page 59). When available, ten plants of each herbaceous perennial ornamental are evaluated for a minimum of five years, and five plants of each woody landscape plant are evaluated for ten years. Subsequently, hardy perennials will be propagated and tested at other locations throughout the Interior and released for commercial propagation. Soils in the perennial test garden were amended with 1–2 inches of Lemeta peat in 1988. The perennial beds were fertilized with 500 lb per acre 10–20–20S on July 17, 1997. Unless otherwise noted, plants received no special winter protection such as mulching or screening.

The annual flowers were grown in the Perennial Landscape and All America Selections Display Garden. Plants were grown in unreplicated beds and varied in number according to bed size. Soils were fertilized with 1500 lb per acre 10–20–20S prior to tilling. Planting occurred on June 4–17, 1997.

Weather data are compiled annually from a U.S. Weather Service station, elevation 475 ft. (145 m), located approximately 350 ft. (107 m) west of the test garden. A summary of pertinent weather statistics for 1993 through 1997 is shown in Table 1.

## The 1997 season

After the severe winter of 1995–96 and the significant loss of plants experienced by gardeners, researchers and commercial businesses all over Alaska, the 1997 season was almost boring. The last spring frost was predictable and caused very little damage in the Garden. Although our first recorded temperature of 32°F (0°C) occurred on August 19, damage to flowers, vegetables and fruits was insignificant. Following that frost, we continued to enjoy the Garden and were still harvesting tomatoes through mid September. Gardeners and landscapers from throughout the Tanana Valley remarked that it was a good year for flowers and a great year for vegetables.

The season was drier than the previous five years. Nevertheless, the disease problems with Sclerotinia rot continued to plague both the annual flower and vegetable garden. The only unusual occurrence was a torrential rain and hail storm on June 8 that left some gardens around the Tanana Valley flattened, whereas others were untouched. The Botanical Garden experienced only slight injury to the large-leaved dabbias and nasturtiums; most flowers, still in the flats, were uninjured.

Many perennials showed residual injury from the severe winter of 1995–96 where a combination of extremely low snowfall and low temperatures (minimum -48°F (-44°C) killed 33 percent of the experimental plants in the Garden. Dieback continues on trees and shrubs, some of which have survived in the Garden for more than 50 years. We expect to see a gradual decline in some species for the next ten years.

## Plant Evaluation Tables

The information is summarized in four tables. Table 2 lists all the perennial plant materials currently being evaluated. Table 3 lists all perennials that have been evaluated but did not survive the minimum five-year evaluation period for herbaceous perennials and grasses or the minimum ten-year evaluation period for woody perennials. Table 4 lists current year's plantings of perennials that

have not yet been evaluated for winter survival. Each of the three tables on perennials is further divided into four sections: herbaceous perennials, ornamental grasses, woody perennials, and ferns. Table 5 lists all annual flowers that were evaluated in 1997.

## Explanation of Tables 2 through 4 (Perennials)

**NAME AND COMMON NAME:** The following references, listed in order, were consulted for scientific and common names.

Flora of North America editorial committee, eds. 1993 *Flora of North America Vol. 2, Pteridophytes and Gymnosperms*. Oxford University Press, NY.

L.H. Bailey Hortorium. 1976. *Hortus III*. MacMillan Publishing Co., NY.

Fernald, M.L. 1970. *Gray's Manual of Botany*. 8<sup>th</sup> ed. D. Van Nostrand Company.

Hulten, NY. E. 1974. *Flora of Alaska and Neighboring Territories*. Stanford University Press, CA.

Harkness, M.G. and D. D'Angelo, eds. 1986. *Bernard E. Harkness Seedlist Handbook*. Timber Press, Portland.

Bluebird Nursery, Inc. 1990. Catalog. Clarkson, NE.

**SOURCE:** This column lists the private individual, botanical garden, agency, organization or commercial business that provided the plants or propagules. Complete names and addresses for the commercial sources and organizations are listed in Appendix 1.

**NUMBER OF PLANTS:** The total number of plants evaluated.

**WINTER INJURY:** A visual rating of winter injury was recorded each

spring beginning in 1990. Data represent an average rating for the total number of plants evaluated using the scale listed below. Data are cumulative over all the years plants were evaluated.

- 0 = no visible injury
- 1 = slight winter injury
- 2 = moderate winter injury, recovery likely
- 3 = severe setback from winter injury, recovery questionable
- 4 = winterkilled

**HEIGHT AND SPREAD:** The maximum height and spread of herbaceous perennials and ornamental grasses and the average height and spread of woody landscape plants were recorded each summer. Some plants showed a significant difference in height between foliage and flowers/seed pods. For these plants, the first number listed is the foliage height, and the number in parentheses is the flower/seed pod height.

**FLOWERING PERIOD:** The flower symbol in each column denotes the weeks in each month when plants were flowering. For ornamental grasses, only the first observation of flowering is noted because the flowers are insignificant and the seed heads are usually present until snowfall.

**FROST TOLERANT:** A plus sign in each column indicates that the foliage or flowers of a particular plant showed no obvious damage after several nights of below-freezing temperatures (data recorded on Sep. 21 following a minimum temperature of 27°F (-3°C) on the previous two days). A negative sign means frost damage.

**PLOT LOCATION:** The number in this column indicates the plot in the test garden where the specific test plants are located. Refer to the map on the back page of this publication for the physical location of each plot.

**NUMBER OF YEARS SURVIVED:** The total number of years that one or more of the evaluated plants survived. Causes of plant death

could be winterkill, improper site conditions, inadequate or improper field management practices, or mechanical injury. Suspected cause for a particular species or cultivar, if known, is listed by code in the comments section. Codes are defined in a footnote at the bottom of each page.

### Explanation of Table 5 (Annuals)

**PLANT HEIGHT:** The average (most common) height of plants including flowers to the nearest inch was recorded in late August, 1996. If height of individual plants or flowers differed by more than 2 inches, the range in heights from shortest to tallest was recorded.

**SPACING:** The recommended spacing is the distance between plants which provides good coverage and is slightly less than the individual plant spread.

**BLOOM DATE:** Data on flowering were collected weekly beginning June 7, 1996. The \* symbol indicates first bloom, whereas the @ symbol indicates full bloom.

**BLOOM SIZE:** The maximum diameter to the nearest ¼ inch of individual blossoms was recorded for flowers with single blossoms such as daisies, asters and pansies. Spike-type flowers such as snapdragons, lupine and salvia were recorded as length x width (i.e. 12 x 3\*) of the entire spike. The maximum diameter to the nearest ¼ inch was recorded for all clustered flowers such as sweet alyssum and verbena. The measurements of spike and clustered flowers are identified by an "\*" notation following the measurement (i.e. 3\*)

**FROST TOLERANT:** Frost tolerance was evaluated on Sep. 21 on foliage and flowers after overnight low of 27°F (-3°C) on the previous two days.

**CUTTING:** A plus sign indicates this variety is suitable as a cut flower.

**DRIED:** A plus sign indicates this variety is suitable as a dried flower.

**COMMENTS:** The disease problems noted under comments refer to the fungal disease, Sclerotinia (cottony rot or white mold) unless otherwise noted. Sclerotinia infects many different types of flowers. Petunias and schizanthus are particularly susceptible. Plants eventually wilt due to blockage of the vascular tissue by small, hard, black fungal fruiting bodies. These fruiting bodies overwinter in the soil and re-infect plants in later years. The number of fruiting bodies present in the soil, as well as environmental conditions such as humidity and soil moisture, can affect the spread of the disease. Cultivars that showed no damage in 1996 are not necessarily resistant.

*Table 1. Weather records for the test years.*

Season	1993	1994	1995	1996	1997
<b>Average temperature °F</b>					
May	51.9	52.0	52.3	44.1	47.8
June	60.5	57.0	58.5	57.3	61.0
July	64.5	62.0	61.9	61.9	63.8
August	55.5	51.0	55.6	52.1	57.1
September	42.5	43.0	50.6	41.2	49.6
<b>Maximum temperature °F</b>	91	89	85	82	87
<b>Growing season</b>					
Last spring frost	May 1	May 6	May 22	June 5	May 25
First fall frost	Sept 1	Aug 23	Sept 4	Aug 27	Aug 19
Frost-free days	123	109	105	83	
Thaw degree days <sup>1</sup>	3547.5	3476.3	3676.5	2810.5	3655.5
Rainfall (inches) <sup>2</sup>	6.67	7.21	10.15	8.73	5.86
<b>Previous winter season</b>					
Minimum temperature °F	-52	-37	-48	-48	-54
Snowfall (inches)	131.7	36.3	69	47.8	58.4
<sup>1</sup> May through September 32°F base temperature					
<sup>2</sup> May through September					

Table II *plant materials evaluated in 1997.*

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<b>HERBACEOUS PERENNIALS</b>							
<i>Achillea ptarmica</i> 'The Pearl'	Sneezewort	Vaughan's	Jul-93	10	0.8	28	32
<i>Actaea rubra</i> subsp. <i>rubra</i>	Baneberry	Fairbanks, AK	Aug-94	9	0.8	23	26
<i>Alchemilla mollis</i> 'Thriller'		Johnny's	Jul-96	10	2.0	18	26
<i>Allium flavum</i>		M&Z	Aug-96	10	2.0		
<i>Allium oreophilum</i>		M&Z	Aug-96	10	2.9		
<i>Anemone</i> sp.		Seeds of AK	Jul-94	9	3.4		
<i>Antennaria alpina</i>	Pussy-toes	NEWFS	Aug-95	10	2.5	2(4)	12
<i>Aquilegia flabellata</i>		AHS	Jul-96	10	2.3	16	20
<i>Aquilegia</i> sp.	Columbine	Novosibirsk, Russia	Aug-92	10	2.2	12(24)	10
<i>Aquilegia viridiflora</i>		T&M	Jul-94	10	2.8	10(24)	18
<i>Arnica alpina</i>	Alpine arnica	ARGS	Jul-92	10	2.6	24	20
<i>Arnica cordifolia</i>		ARGS	Jul-92	3	0.9	20	16
<i>Arnica latifolia</i>		Seeds of AK	Jul-94	10	0.8	32	>48
<i>Artemisia tilesii</i> 'Caiggluk'	Tilesy sage	PMC	Jul-92	10	1.3	47	44
<i>Aruncus dioicus</i>	Goatsbeard	Park	Jul-94	10	3.5	18	34
<i>Asparagus officinalis</i> var. <i>pseudoscaber</i>	Lace-veil asparagus fern	Ball	Jul-93	10	0.7	48	28
<i>Aster acuminatus</i>	Whorled aster	NEWFS	Jul-94	10	2.4	26	36

\*Winter Injury Rating: 0=no visible injury; 1=slight winter injury, 2=moderate winter injury, recovery likely; 3=severe setback from winter injury, recovery questionable; 4=winter killed.

MAY	WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP	flowers		foliage			
		☆☆☆☆☆☆☆☆				white	+	+	abundant blooms	7
	☆☆					white, red berries			dark red poisonous berries in August	23
		☆☆☆☆☆☆☆☆				yellow-green	+	+		20
									foliage died back after spring	16
		☆☆☆				rose			foliage died back after blooming	16
		☆☆☆☆				white, pink tips			one plant remaining	23
		☆☆				white		+	spreads slowly, excellent for rock gardens	4
	☆☆☆☆☆☆☆☆					blue		+		7
		☆☆☆☆		☆☆☆		purple or pink		+	purple flowers small and nodding, pink flowers larger, one plant remaining	13
	☆☆☆☆☆☆☆☆					greenish, yellowish black		+	attractive to aphids, odd flower color, powdery mildew, not attractive	23
		☆☆☆☆			☆☆☆☆	bright gold		+	self seeds	11
	☆☆☆☆☆☆					bright gold		+	suitable for wildflower meadows	11
		☆☆☆☆☆☆☆☆				yellow	+	+	spreads by rhizomes & reseeds readily	23
			☆☆☆☆☆☆☆☆			yellow	+	+	fragrant, attracts aphids & honey bees, nondescript flowers	16
						cream		+	one plant remaining	23
	☆	☆☆☆☆			☆☆☆☆	yellow		+		7
					☆	purple		+	two plants remaining	20



Table 2 (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Aster linearifolius</i>		NEWFS	Jul-94	10	3.2		
<i>Aster sibiricus</i>	Siberian aster	Big Dipper	Jul-92	10	0.6	9(19)	24
<i>Campanula rotundifolia</i> var. <i>marchesettii</i>	Harebell	T&M	Jul-94	10	2.8	12	7
<i>Codonopsis mollis</i>		ARGS	Jul-94	6	2.9	16	28
<i>Dodecatheon jeffreyi</i>	Shooting star	ARGS	Jul-92	5	2.9		
<i>Dodecatheon meadia</i>	Shooting star	ARGS	Jul-92	8	1.8	5(11)	8
<i>Eryngium amethystinum</i>		Magadan, Russia	Jul-96	10	2.1	18	27
<i>Filipendula rubra</i> 'Venusta'	Queen of the Prairie	White Flower	Sep-96	3	2.7	20	24
<i>Filipendula vulgaris</i>	Dropwort	I. Berger	Aug-93	10	2.1	7	13
<i>Galium boreale</i>	Northern bedstraw	Big Dipper	Jul-92	10	0.6	25	35
<i>Galium verum</i>	Yellow bedstraw	Richters	Jul-94	10	1.8	30	48
<i>Hemerocallis</i> 'Stella d'Oro'	Daylily	Park	Sep-93	6	2.0	10	12
<i>Hesperis sibirica</i>	Siberian dame's rocket	Magadan, Russia	Jul-96	10	0.0	16(51)	24
<i>Inula hirta</i>		I. Berger	Aug-93	10	1.8	11	18
<i>Iris palustris</i>		SAAS	Aug-92	6	2.1	33	18
<i>Iris setosa</i>	Wild iris	Kodiak, AK	Aug-92	2	0.4	26	26
<i>Iris setosa</i>	Wild iris	ARGS (Germany)	Jul-92	6	3.3	20	12
<i>Iris setosa arctica</i>	Wild iris	ARGS	Jul-92	2	2.4	11	7

\*Winter Injury Rating: 0=no visible injury; 1=slight winter injury, 2=moderate winter injury, recovery likely; 3=severe setback from winter injury, recovery questionable; 4=winter killed.

MAY	WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP	flowers		foliage			
						pale lavender		+	one plant remaining	23
	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	lavender		+	some browning of foliage by end of season, spreads slowly by rhizomes, self seeds	4
				☆☆☆☆	☆☆	blue	+	+	one plant remaining, transplanted this year	15
		☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	pale blue, purple center	+	+	interesting flowers, one plant remaining	23
	☆☆					magenta			one plant remaining, dies back after bloom	16
	☆☆					white to light pink			dies back after bloom	16
								+		20
								+		6
						white		+	one plant remaining	18
	☆☆☆☆					white		+	very small fragrant flowers, spreads slowly by rhizomes	4
		☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	yellow	+	+	fragrant, attractive to honey bees, fine-textured foliage, small flowers	20
			☆☆☆☆	☆☆	☆☆	gold		+	one plant remaining	12
	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	purple	+	+	may need staking, fragrant	20
		☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	yellow	+	+		18
		☆☆				blue		+	small flowers	13
		☆☆				deep purple		+		13
		☆				blue		+	one plant remaining	15
								+	one plant remaining	15

Table : continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Iris setosa nana</i>	Wild iris	ARGS	Jul-92	10	2.2	28	24
<i>Lilium</i> 'Alaska'	Asiatic hybrid lily	Waushara	Aug-95	10	1.5	18	11
<i>Lilium</i> 'Antarctica'	Asiatic hybrid Lily	Wayside	Jul-93	10	1.2	30	20
<i>Lilium</i> 'Apollo'	Asiatic hybrid lily	Waushara	Jul-96	6	1.0	20	7
<i>Lilium</i> 'Ariadne'	Asiatic hybrid lily	B&D	Jul-96	3	0.0	22	8
<i>Lilium</i> 'Chinook'	Asiatic hybrid Lily	Wayside	Jul-93	10	0.7	35	22
<i>Lilium</i> 'Coho'	Asiatic hybrid Lily	Waushara	Jul-93	10	1.8	29	26
<i>Lilium</i> 'Figaro'	Asiatic hybrid lily	Waushara	Jul-96	10	1.9	21	14
<i>Lilium</i> 'Geneve'	Asiatic hybrid Lily	Waushara	Jul-93	8	1.7	13	8
<i>Lilium</i> 'Geneve'	Asiatic hybrid lily	Waushara	Jul-96	6	2.0	24	10
<i>Lilium</i> 'George Slate'	Asiatic hybrid lily	B&D	Jul-96	3	1.0	10	7
<i>Lilium</i> 'Graceland'	Asiatic hybrid Lily	Waushara	Jul-93	10	1.3	26	21
<i>Lilium</i> 'Grand Cru'	Asiatic hybrid lily	Waushara	Jul-96	5	1.2	26	16
<i>Lilium</i> 'Her Grace'	Asiatic hybrid lily	B&D	Jul-96	3	0.3	16	8
<i>Lilium lanciflorum</i>	Tiger lily	J. Gordon	Aug-92	10	1.0	36	20
<i>Lilium</i> 'Little Yellow Kiss'	Asiatic hybrid lily	B&D	Jul-96	3	1.7	16	10
<i>Lilium</i> 'Massa'	Asiatic hybrid lily	Waushara	Jul-96	5	0.4	39	16
<i>Lilium</i> 'Medallion'	Asiatic hybrid lily	Waushara	Jul-96	6	0.3	34	10

\*Winter Injury Rating: 0=no visible injury; 1=slight winter injury, 2=moderate winter injury, recovery likely; 3=severe setback from winter injury, recovery questionable; 4=winter killed.

MAY	WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP	flowers		foliage			
		☆				deep blue		+		15
			☆☆☆☆			cream		+		12
		☆☆☆☆				white		+		6
		☆☆☆				creamy white				12
		☆☆☆				light coral				12
			☆☆☆☆			light orange		+		6
			☆☆☆			pale gold				6
		☆☆☆☆				scarlet-orange				12
			☆☆☆☆			pale peach		+		11
		☆☆☆☆				lt. pink to peach				12
			☆			light yellow				12
		☆☆	☆			orange				6
		☆☆☆☆				yellow with deep red throat		+	striking color combination	12
			☆☆☆☆			bright gold		+		12
			☆☆☆☆☆☆			orange with dark spots	+	+	good late-season color	12
			☆☆☆			yellow/brown speckles in throat		+		6
		☆☆☆				bright orange				6
		☆☆☆☆☆☆				yellow with orange blush in center	+	+		12

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Lilium</i> 'Peacock Creation'	Asiatic hybrid lily	Waushara	Jul-96	5	0.8	33	10
<i>Lilium</i> 'Red Night'	Asiatic hybrid Lily	Waushara	Jul-93	10	1.1	24	15
<i>Lilium</i> 'Roma'	Asiatic hybrid Lily	Waushara	Jul-93	10	0.4	25	20
<i>Lilium</i> sp.	Tiger lily	U. Park School	Aug-93	10	1.8	7	9
<i>Lilium</i> 'Toscana'	Asiatic hybrid lily	Waushara	Jul-96	9	1.6	10	8
<i>Lilium</i> 'Typhoon'	Asiatic hybrid lily	B&D	Jul-96	3	2.3	9	6
<i>Lilium</i> 'Yellow Ballerina'	Asiatic hybrid lily	B&D	Jul-96	3	1.3	9	7
<i>Paeonia</i> sp.	Single peony	J. Gordon	Jul-92	10	0.7	30	45
<i>Papaver orientalis</i> 'Pizzicato'	Oriental poppy	T&M	Jul-96	10	3.4	14	18
<i>Phlox subulata</i>	Creeping phlox	Smith	Jul-96	7	2.6	6	10
<i>Polygonatum biflorum?</i>	Solomon's seal	K. Collette	Sep-93	10	1.4	32	26
<i>Potentilla argrophylla</i> 'Leucochroa'		ARGS	Jul-94	6	2.1	12	28
<i>Sanguisorba menziesii</i>	Menzies burnet	Seeds of Alaska	Jul-94	10	1.0	36	40
<i>Sanguisorba officinalis</i>	Great burnet	Ft. Yukon, AK	Jul-94	10	1.0	17(36)	18
<i>Senecio tanguticus</i> ( <i>Ligularia tangutica</i> )		Aspen Acres	Aug-95	2	1.3	32	26
<i>Solidago mutirodiata</i>	Goldenrod	NEWFS	Aug-94	1	1.7	5	8
<i>Thalictrum speciosissimum</i>		AHS	Jul-96	10	0.7	18(44)	18
<i>Trollius europaeus</i>	Globeflower	Fairbanks, AK	Jul-92	4	1.0	15(30)	18

\*Winter Injury Rating: 0=no visible injury; 1=slight winter injury, 2=moderate winter injury, recovery likely; 3=severe setback from winter injury, recovery questionable; 4=winter killed.

MAY	WEEKLY BLOOM PERIOD				SEP	BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP			flowers	foliage		
			***			peach to yellow				12
			****			dark red				6
			*****			light yellow		+		6
						red			probably an Asiatic hybrid	18
						rose pink		+		12
						peach				12
						bright yellow				6
	***					deep rose pink		-	attractive foliage and flower, short bloom time	11
								+		20
	***					mix-white, pink		+		7
	****					white/green tips		+	beautiful foliage color	4
	*****					yellow/red centers		+	silver hairs on leaves	23
		*****				burgundy red		+	severe powdery mildew on leaves from mid-July on	23
		*****				dark red		+	interesting flower & seed heads, some powdery mildew	23
					****	yellow	+	+	spreads (moves) by rhizomes	20
						golden		+		15
			*****			light yellow	+	+	attractive foliage, long bloom period	7
	*****					gold		+	attractive, colorful blooms	11

Table (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Trollius laxus</i>	Spreading globeflower	NEWSF	Jul-92	10	1.3	15	15
<i>Tulipa batalinii</i> 'Bright Gem'	Tulip	M&Z	Aug-96	4	3.0		
<i>Tulipa greigii</i> 'United States'	Greigii tulip	M&Z	Aug-96	10	2.7		
<i>Tulipa tarda</i>	Tarda tulip	de Jager	Aug-93	9	0.7		
<i>Veronica longifolia</i> 'Pink Shades'	Speedwell	Park	Aug-95	10	2.3	21	18
<i>Veronica spicata</i> 'Sightseeing Mix'		Stokes	Jul-94	10	1.5	24	46
<i>Veronicastrum sibiricum</i>	Culver's root	ARGS	Aug-95	4	0.9	4	9
<i>Viola</i> sp.	Altai violet	Fairbanks, AK	Aug-96	15	1.9	5	11
<b>FERNS</b>							
<i>Athyrium filix-femina</i>	Lady fern	NEWFS	Jul-93	10	2.4	13	20
<i>Dryopteris filix-mas</i>	Male fern	Barnaul	Jun-95	5	2.1	8	18
<i>Dryopteris crassirhizoma</i>		HFF	Sep-96	5	3.0	5	15
<i>Dryopteris eximina</i>		Aspen Acres	Jul-96	10	1.1	19	28
<i>Dryopteris filix-mas</i>	Male fern	Barnaul	Jul-96	6	1.7	14	19
<i>Dryopteris filix-mas</i>	Male fern	NEWFS	Jul-93	10	1.5	7	14
<i>Dryopteris fragrans</i>	Fragrant wood fern	Fish Creek, AK	Jul-93	10	3.6	4	6
<i>Matteuccia struthiopteris</i>	Ostrich fern	AK Greenhouse	Aug-96	4	1.5	20	14
<i>Phegopteris connectilis</i> ( <i>Thelypteris phegopteris</i> )	Northern beech fern	NEWFS	Jul-93	3	1.6	13	27

\*Winter Injury Rating: 0=no visible injury; 1=slight winter injury, recovery likely; 2=moderate winter injury, recovery likely; 3=severe setback from winter injury, recovery questionable; 4=winter killed.

WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
MAY	JUN	JUL	AUG	SEP		flowers	foliage		
	★ ★ ★ ★ ★ ★ ★ ★		★ ★ ★ ★ ★ ★ ★ ★		pale yellow	+	+	attractive, early and late-season blooms	15
	★							one plant survived, foliage died back after spring	16
								foliage died back after spring	16
					bright yellow, white edges			dies back by mid-season	19
				★ ★ ★ ★ ★ ★	light rose	+	+		20
		★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★			blue, pink, white	+	+		23
					deep blue		+	evergreen	20
	★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★				deep violet	+	+		1
							+		1
							+		1
							+		1
							+		1
							+		1
							+	one plant remaining, probably inappropriate growing conditions	1
							+		1
							-		1



Table 2 (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Polypodium virginianum</i>	American wall fern	NEWFS	Jul-93	10	3.4	8	14
✧ <i>Polystichum andersonii</i>	Anderson's sword fern	HFF	Sep-96	5	2.6	6	14
✧ <i>Polystichum andersonii</i>	Anderson's sword fern	HFF	Jul-96	7	3.6	1	3.5
<i>Polystichum braunii</i>	Braun's holly fern	HFF	Jun-95	10	0.2	12	24
✧ <i>Polystichum</i> sp.	Novosibirsk fern	CSBG	Jul-93	2	0.0	19	24
✧ <i>Woodsia polystichoides</i>		HFF	Sep-96	5	3.6	1	3
<b>ORNAMENTAL GRASSES</b>							
<i>Arctagrostis latifolia</i> 'Kenai'	Polar grass	PMC	Jul-92	10	0.3	40(55)	48
<i>Beckmannia syzigachne</i> 'Egan'	American sloughgrass	PMC	Jul-92	10	1.8	34	18
<i>Poa ampla</i> 'Service'	Big bluegrass	PMC	Jul-92	10	2.0	15(36)	12
<i>Poa glauca</i> 'Tundra'	Greenland bluegrass	PMC	Jul-92	10	3.1	15(29)	14
<b>WOODY PERENNIALS</b>							
<i>Acer ginnala</i> 'Bergiana Flame'	Amur maple superior red	Lawyer	Jul-93	5	2.4	62	79
<i>Amelanchier alnifolia</i>		NCRPIS	Jul-92	2	1.9	26	22
<i>Aronia melanocarpa</i>		NCRPIS	Jul-92	2	1.8	39	41
<i>Betula lenta</i> 'Morton No. 9'	Cherry birch	NCRPIS	Jul-94	5	3.1	34	25
<i>Betula michauxii</i>		ARGS	Sep-90	5	1.1	27	56
<i>Betula occidentalis</i>	Water birch	NCRPIS	Jun-90	3	2.2	77	132

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MAY	WEEKLY BLOOM PERIOD				SEP	BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP			flowers	foliage		
								+	one plant remaining	1
								+		1
								+		1
								+	nice form	1
								+		1
								+		1
								+	coarse foliage	8
								+	susceptible to disease (powdery mildew)	8
								+	feathery look, reseeds readily	8
								+	one plant remaining	8
								+	comes back from roots but new shoots break off easily, not as hardy as species	3
						white		+	one plant remaining	2
						white		+	one plant remaining, came back from roots	5
								+	one plant remaining	17
								+	interesting mounding growth habit	14
								+	one plant remaining	3

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Betula pendula</i>	European white birch	Arboretum Norr	Sep-96	5	0.0	36	20
<i>Betula platyphylla</i>		NCRPIS	Jun-96	3	2.3	43	33
<i>Betula</i> sp.		NCRPIS	Jun-90	3	2.7	94	133
<i>Caragana arborescens</i>	Siberian pea tree	PMC	Sep-91	3	0.4	120	54
<i>Caragana arborescens</i>	Siberian pea tree (pyramidal form)	PMC	Jul-94	2	0.0	88	49
<i>Caragana frutex</i>	Russian pea shrub	NCRPIS	Aug-93	3	1.9	36	52
<i>Caragana grandiflora</i>	Large-flowered Siberian pea	Arboretum Norr	Sep-96	5	0.6	26.5	21.5
<i>Caragana pygmaea</i>	Pygmy caragana	Washburn	Jul-94	5	1.6	26	32
<i>Cornus alternifolia</i>	Pagoda dogwood	Smith	Sep-96	5	3.6	20	9
<i>Cornus sericea</i> 'Cardinal'	Red-osier dogwood	Smith	Aug-96	5	2.0	52	39
<i>Crataegus columbiana</i>	Columbia hawthorn	Lawyer	Jul-93	5	2.1	44	18
<i>Forsythia ovata</i> 'Nakai'	Early forsythia	NCRPIS	Sep-90	5	3.2	62	58
<i>Juniperus horizontalis</i> 'Bar Harbor'	Creeping juniper	NCSU	Aug-94	1	0.3	4	30
<i>Juniperus horizontalis</i> 'Slow Blue'	Creeping juniper	NCSU	Aug-94	2	0.7	5	28
<i>Juniperus horizontalis</i> 'Watnong'	Creeping juniper	NCSU	Aug-94	1	0.3	4	24
<i>Juniperus horizontalis</i> 'Wilms'	Creeping juniper	NCSU	Aug-94	2	1.7	8	27
<i>Larix sibirica</i>	Siberian larch	CSBG	Aug-91	5	3.4	84	38
<i>Lonicera altaica</i>	Altai honeysuckle	Arboretum Norr	Sep-96	5	0.8	27	13

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MAY	WEEKLY BLOOM PERIOD				SEP	BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	flowers			foliage			
								+		17
								+		21
								+	one plant remaining	3
	☆☆☆					yellow		+	two plants are tipping over—appear to have inadequate root support	5
	☆☆					yellow		+	unsightly bending from snow load	5
	☆☆☆☆		☆			yellow		+		5
								+		17
	☆☆☆					yellow		+	small-leaved variety	17
								+		17
								+		21
								+	came back from roots	3
								+	one plant remaining	14
								+		9
								+		9
								+		9
								+	one plant remaining	9
								+		17

Table 2. (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Lonicera tatarica</i> 'Beavermor'	Tatarian honeysuckle	Beaverlodge	Sep-89	5	1.5	63	62
<i>Lonicera tatarica</i> 'Red Ram'	Red ram honeysuckle	Smith	Sep-96	5	2.6	39	60
<i>Malus baccata</i> var. <i>mandsurica</i>	Siberian crab	PMC	Sep-91	5	1.7	58	63
<i>Malus pallasiana</i> ssp. <i>himalaica</i>		J. Want	Jul-94	5	0.8	66	69
<i>Malus prunifolia</i> 'Kerr'	Kerr crabapple	Lawyer	Aug-93	5	1.9	56	75
<i>Malus</i> sp. 'Almey'	Almey crab	Lawyer	Jul-94	5	3.3	59	73
<i>Philadelphus coronarius</i>	Mockorange	Washburn	Aug-95	5	0.9	34	46
<i>Physocarpus monogynus</i>	Ninebark	NCRPIS?	Sep-89	3	1.0	60	82
<i>Physocarpus ribesifolius</i>	Ninebark	NCRPIS	Jun-96	5	1.0	41	53
<i>Picea engelmannii</i>	Engelmann spruce	Schumacher	Sep-89	5	2.4	12	12
<i>Picea glauca</i> var. <i>albertiana</i>	Alberta spruce	GBG	Sep-89	5	0.2	88	64
<i>Picea pungens</i> X <i>glauca</i>	Spartan spruce®	BTI	Aug-91	5	3.2	22	15
<i>Pinus cembra</i>	Swiss stone pine	Schumacher	Sep-89	5	2.2	14	15
<i>Pinus cembra sibirica</i>	Stone pine	SAAS	Aug-93	5	0.9	22.5	12.5
<i>Pinus resinosa</i>	Red pine	Lawyer	Aug-93	3	1.3	24	17
<i>Pinus sibiricus</i>	Siberian pine	SAAS	Aug-93	4	1.4	20	11.5
<i>Populus nigra</i> 'Thevestina'	Theves poplar	Smith	Sep-96	5	3.0	30	13
<i>Populus tremula</i> 'Erecta'	Upright European ash	KHN	Jun-90	5	1.6	92	41

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MAY		WEEKLY BLOOM PERIOD				BLOOM COLOR	FROST TOLERANT flowers foliage	COMMENTS	PLANT LOCATION		
		JUN	JUL	AUG	SEP						
		★	★	★	★	★	★	white, red fruits	+		2
									+	came back from roots	3
									+		5
									+	good fall color	3
		★						white	+		2
									+	one plant remaining, came back from roots	2
			★	★	★			white	+	very attractive, fragrant flowers	3
		★	★	★	★	★	★	★	+	fruits insignificant, a few blooms in September, needs pruning from occasional winter dieback	2
			★					white	+		21
									+	one plant remaining	9
									+	attractive evergreen, nice form	9
									+	one plant remaining	9
									+	one plant remaining	9
									+		9
									+		9
									+	came back from roots	3
									+	suckers	3

Table 2 (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Potentilla fruticosa</i> 'Abbotswood'	Shrubby cinquefoil	Lawyer	Aug-95	4	1.5	26	27
<i>Potentilla fruticosa</i> 'McKay White'	Shrubby cinquefoil	Smith	May-96	5	3.8	10	12
<i>Potentilla fruticosa</i> 'Primrose Beauty'	Shrubby cinquefoil	Smith	May-96	5	3.6	11	32
<i>Potentilla fruticosa</i> 'Yellow Bird'	Shrubby cinquefoil	Smith	Aug-96	5	1.8	23	24
<i>Prunus fruticosa</i>	European dwarf cherry	BCN	Sep-89	5	2.7	43	53
<i>Prunus fruticosa</i> 'Scarlet'	European dwarf cherry	NCRPIS	Sep-89	5	1.7	40	58
<i>Prunus pennsylvanica</i>	Pin cherry	GBG	Jul-94	5	0.6	72	95
<i>Prunus salicina</i> var. <i>mandshurica</i>	Manchurian plum	BCN	Sep-89	5	3	68	78
<i>Prunus triloba</i>	Flowering almond	Smith	Jun-96	5	2.2	40	39
<i>Prunus ussuriensis</i>		Clair's Cultivars	Aug-94	5	0.9	73	71
<i>Prunus X cistena</i>	Purple-leaf sand cherry	Lawyer	Jul-93	5	2.3	46	33
<i>Ribes nigrum</i> 'Ben Lomond'	Black currant	PMC	Jul-94	5	1.9	38	65
<i>Ribes nigrum</i> 'Ben Nevis'	Black currant	PMC	Jul-94	5	2.4	48	65
<i>Ribes nigrum</i> 'Boskoop Giant'	Black currant	PMC	Jul-94	2	2.2	43	53
<i>Ribes nigrum</i> 'Erkheikki VII'	Black currant	PMC	Jul-94	5	0.3	28	41
<i>Ribes nigrum</i> 'Jankis Jarvi'	Black currant	PMC	Jul-94	1	0.3	32	37
<i>Ribes nigrum</i> 'Melalathi'	Black currant	PMC	Jul-94	5	0.5	28	42
<i>Ribes nigrum</i> 'Nikkala XI'	Black currant	PMC	Jul-94	5	0.4	22	52

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MAY	WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP	flowers		foliage			
				☆☆☆☆	☆☆☆☆	white	+	+	attractive flower color	5
								+	one plant remaining	21
				☆☆☆☆	☆☆☆☆	primrose yellow	+	+	attractive flower color, one plant remaining	21
		☆	☆☆☆☆	☆☆☆☆	☆☆☆☆	yellow	+	+	attractive, abundant flowers	5
	☆☆					white		+	comes back from roots some years	2
	☆☆☆☆					white, red fruit		+	attractive dark green, shiny foliage, comes back from roots, some suckering, edible tart cherries	2
	☆☆☆					white		+	open pollinated seedlings from GBG plots, suckers, attractive to moose	17
								+	one plant remaining, came back from roots	2
	☆					pink		+		21
								+		2
						pink		+	deep red foliage, came back from roots	3
								+	two plants remaining	22
								+	one plant remaining	22
								+	one plant remaining	22
	☆☆							+	good berry production, ripe by 3rd week of July	22
	☆							+		22
	☆☆☆							+	produced a few berries	22
	☆☆							+	good berry production, ripe by end of July	22



Table 2 (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Ribes nigrum</i> 'Pilot Aleksandr Mamkin'	Black currant	NCGR	Jul-94	1	1.7	39	62
<i>Ribes nigrum</i> 'Sunderbyn II'	Black currant	PMC	Jul-94	4	0.1	30	44
<i>Ribes</i> sp.	Black gooseberry	F. Dorward, YT, Canada	Jul-94	5	1.1	32	63
X <i>Ribes</i> sp.	Red gooseberry	F. Dorward, YT, Canada	Jul-94	4	2.1	40	72
<i>Ribes</i> sp.	Yakutsk currant	Yakutsk, Russia	Jul-94	2	0.0	40	86
<i>Ribes</i> sp. 'Nariadnaja'		NCGR	Jul-94	2	2.3	46	62
<i>Ribes triste</i>	Swamp red currant	John Holm	Jul-94	5	1.1	21	31
<i>Rosa canina</i>	Dog rose	Novosibirsk, Russia	Aug-94	2	0.3	64	58
X <i>Rosa</i> 'Morden Blush'	Rose	J&P	Jun-96	3	2.7	20	16
X <i>Rosa</i> 'Morden Fireglow'	Rose	J&P	Jun-96	3	3.0	18	15
<i>Rosa rugosa</i> PI 277 432	Turkestan rose	PMC	Aug-91	5	3.3	21	48
<i>Rosa</i> sp. 'Lac Majeau'		PMC	Aug-91	4	1.1	36	48
<i>Rosa</i> sp. 'Prairie Wren'		PMC	Aug-91	2	2.3	54	74
X <i>Rosa</i> 'Topuz Jewel'		J&P	Jun-96	3	2.7	24.5	19
X <i>Rosa woodsii</i>	Wood's rose	NCRPIS	Aug-91	5	1.5	46	66
<i>Salix</i> sp.		GBG	Aug-91	5	2.0	82	118
X <i>Sorbaria sorbifolia</i>	False spiraea	NCRPIS	Jun-90	3	0.8	62	88
<i>Spiraea chamaedryfolia</i>		NCRPIS	Jul-92	5	1.3	59	66

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WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
MAY	JUN	JUL	AUG	SEP		flowers	foliage		
							+	fruit ripe by 3rd week of July	22
	☆☆						+	excellent berry production, ripe by 3rd week of July	22
	☆☆☆						+	no thorns, red fruit	22
	☆☆☆						+	very large fruits, ripe by mid-July	22
							+		22
							+	one plant remaining	22
	☆☆						+	many flowers but didn't set fruit	22
		☆☆☆				rose pink	+	suckers extensively	14
			☆☆☆☆☆☆☆☆	☆☆☆☆		blush pink	+	lightly fragrant	14
			☆☆☆☆☆☆	☆☆☆☆		bright coral	+		14
		☆☆☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆		deep rose	+	fragrant single flowers, large rose hips, one plant remaining	14
		☆☆☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆		white/pink centers	+	very showy fragrant, double flowers, dark red ornamental hips, some suckering	14
		☆☆☆☆				cream, yellow centers	+	single flowers, dark red rose hips, one plant remaining	14
			☆☆☆	☆		yellow	+		14
	☆☆☆☆	☆				light pink	+	single flowers, bright scarlet rose hips, suckers	14
							+	attractive, good landscaping potential, glossy, long tapered leaves	2
		☆☆☆☆☆☆	☆☆☆☆	☆☆☆☆		white	+	comes back from roots after hard winters, very large flower clusters, attractive to all kinds of bees	2
	☆☆☆☆		☆☆☆☆	☆☆☆☆		white	+	covered with flowers in June, nice red and gold fall foliage color	5

Table 2 (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NO. OF PLANTS	WINTER INJURY*	HEIGHT (IN)	SPREAD (IN)
<i>Spiraea miyabei</i>		NCRPIS	Jun-96	5	0.6	27	32
<i>Spiraea salicifolia</i>	Pink spirea	Fairbanks, AK	Aug-93	1	0.5	62	75
$\frac{1}{X}$ <i>Spiraea</i> sp.	Bridal wreath spirea?	Fairbanks, AK	Jul-94	2	0.0	50	63
<i>Spiraea</i> X <i>Billiardii</i>	Billiard spirea	Smith	Sep-96	2	0.5	32	34
<i>Spiraea</i> X <i>Bumalda</i> 'Anthony Waterer'		Smith	Jul-96	5	2.2	8	11
<i>Spiraea</i> X <i>Vanhouttei</i>	Vanhoutte spirea	Smith	Aug-96	5	1.2	28	34
<i>Spiraea</i> X <i>Vanhouttei</i> 'Renaissance'	Vanhoutte spirea	Holm Town	Sep-96	3	2.0	16	33
<i>Syringa josikaea</i> (?)	Hungarian lilac	Washburn	Jul-94	5	0.3	57	57
<i>Viburnum lentago</i>	Sheepberry	NCRPIS	Jun-90	5	2.7	57	48
<i>Viburnum trilobum</i>	Cranberry bush	Schumacher	Sep-91	5	3.0	58	53

\*Winter Injury Rating: 0=no visible injury; 1=slight winter injury, 2=moderate winter injury, recovery likely; 3=severe setback from winter injury, recovery questionable; 4=winter killed.

MAY	WEEKLY BLOOM PERIOD					BLOOM COLOR	FROST TOLERANT		COMMENTS	PLANT LOCATION
	JUN	JUL	AUG	SEP	flowers		foliage			
		☆☆☆☆				white		+		21
		☆☆☆☆☆☆☆☆				pink	+	+	attractive flowering shrub, long blooming	5
	☆☆☆				☆☆	white		+		17
		☆☆☆☆☆☆☆☆				pale pink	+	+		17
			☆☆☆☆☆☆			magenta	+	+		17
	☆☆☆☆					white		+		5
	☆☆☆					white		+		17
	☆☆☆☆	☆				purple		+	fragrant flowers	17
								+	one plant remaining	3
	☆☆☆					white		+	one plant remaining	2

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS	NUMBER YEARS SURVIVED	COMMENTS
<b>HERBACEOUS PERENNIALS</b>						
<i>Achillea borealis</i>	Yarrow	Nauriaq	Jul-92	10	3	J
<i>Achillea millefolium</i> 'Summer Pastels'	Common yarrow	AAS	Aug-90	10	5	J
<i>Achillea ptarmica</i>	Sneezewort	Fairbanks, AK	Oct-91	3	4	J
<i>Achillea taygetea</i> 'Debutante'		Park	Jul-92	10	3	J
<i>Aconitum volubile</i>	Monkshood	T&M	Sep-91	2	0	A
<i>Adenophora bulleyana</i>	Ladybells	T&M	Jul-92	10	1	
<i>Alcea ficifolia</i> 'Country Garden Mix'	Hollyhock	Park	Jul-96	6	0	A
<i>Alchemilla alpina mollis</i>	Mountain ladysmantle	Park	Sep-91	10	0	A
<i>Althea officinalis alba</i>	Marsh mallow	T&M	Jul-96	10	0	A
<i>Amsonia tabernaemontana</i>		NEWFS	Aug-93	2	4	K
<i>Amsonia tabernaemontana</i> var. <i>salicifolia</i>		NEWFS	Jul-93	10	2	
<i>Anemone halleri</i>	Haller anemone	ANPS	Jun-91	7	4	
<i>Anemone nuttalliana</i>	Pasque flower	NEWFS	Jul-94	9	2	L
<i>Anemone (Pulsatilla) patens</i>	Pasque flower	M. Earp	Aug-89	10	2	G
<i>Anthemis tinctoria</i>	Golden marguerite	ARGS	Jul-94	1	0	A
<i>Aquilegia alpina</i>		AHS	Jul-96	10	0	A
<i>Aquilegia atrata</i>		ARGS	Aug-91	7	4	
<i>Aquilegia brevistyla</i>	Yukon columbine	ANPS	Jun-91	10	2	
<i>Aquilegia buergerana</i>		ARGS	Aug-91	10	4	
<i>Aquilegia canadensis</i>	Wild columbine	NEWFS	Aug-93	10	2	
<i>Aquilegia flavescens</i>		ARGS	Sep-96	8	1	K?
<i>Aquilegia formosa</i>	Sitka columbine	ANPS	Aug-91	10	4	J
<i>Aquilegia glandulosa</i>		ARGS	Aug-94	2	1	
<i>Aquilegia pyrenaica</i>	Pyrenees columbine	ARGS	Aug-91	7	4	J
<i>Aquilegia</i> sp.	Columbine	Berdsk, Russia	Aug-92	10	3	J
<i>Aquilegia</i> sp. 'Dynasty'		South Slope	Jun-91	10	4	
<i>Aquilegia</i> sp. 'McKana Giant Hybrids'		T&M	Aug-91	10	4	J
<i>Aquilegia</i> sp. 'Nora Barlow'		Park	Aug-91	10	4	J
<i>Aquilegia vulgaris</i>	Garden columbine	T&M	Aug-91	2	4	J
<i>Aquilegia vulgaris</i> 'Michael Stromminger'	Garden columbine	T&M	Aug-93	10	2	J
<i>Arabis caucasica</i>	Wall rock cress	I. Berger	Aug-93	10	2	J
<i>Armeria</i> sp.		South Slope	Jun-91	3	0	A
<i>Arnica alpina</i>		Nauriaq	Jul-92	8	3	D
<i>Arnica frigida</i>		C. Parker	Aug-89	18	2	G
<i>Arnica latifolia</i>	Broadleaf anemone	ANPS	Jun-90	10	1	F
<i>Arnica louiseana</i>		NEWFS	Jun-90	10	1	
<i>Arnica montana</i>		I. Berger	Aug-93	10	3	L
<i>Artemisia dracunculus</i> var. <i>sativa</i>	French tarragon	Richters	Jul-93	3	3	J, B
<i>Artemisia absinthium</i>	Common wormwood	Johnny's	Jun-91	10	1	
<i>Artemisia eriantha</i>		ARGS	Oct-90	3	1	

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Tabl (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS	NUMBER YEARS SURVIVED	COMMENTS
<i>Artemisia frigida</i>	Fringed sagebrush	Ft. Yukon, AK	Jun-91	10	0	A
<i>Artemisia schmidtiana</i> 'Silver Mound'		Lamb	Jun-91	10	1	
<i>Asparagus</i> 'Greenwich'	Asparagus	Nourse	Aug-91	10	4	J
<i>Asparagus</i> 'Jersey Giant'	Asparagus	Nourse	Aug-91	10	4	J
<i>Asparagus</i> 'Jersey King'	Asparagus	Nourse	May-93	10	2	J
<i>Asparagus</i> 'Jersey Knight'	Asparagus	Nourse	May-93	10	2	J
<i>Asparagus</i> 'Jersey Prince'	Asparagus	Nourse	Aug-91	10	4	J
<i>Asparagus</i> 'SYN 4-56'	Asparagus	Nourse	Aug-91	10	4	J
<i>Asparagus</i> 'Viking KB3'	Asparagus	Nourse	May-93	10	2	J
<i>Aster alpinus</i>		I. Berger	Aug-93	1	1	
<i>Aster alpinus</i> var. <i>vierhapperi</i>		NEWFS	Sep-91	4	0	A
<i>Aster ptarmicoides</i>	White upland aster	NEWFS	Jul-94	1	1	J
<i>Babiana nana</i>	Hardy gladiolus	T&M	Aug-93	10	0	A
<i>Calamintha nepeta</i>		T&M	Jul-92	10	0	A
<i>Campanula alliariifolia</i>		ARGS	Jul-94	10	1	J
<i>Campanula carpatica</i>	Tussock bellflower	I. Berger	Jul-93	10	0	A
<i>Campanula glomerata superba</i>		T&M	Aug-92	10	3	J
<i>Campanula glomerata</i> var. <i>dahurica</i>	Clustered bellflower	ARGS	Aug-92	1	2	B
<i>Campanula rotundifolia</i>	Harebell	ANPS	Aug-89	9	2	G
<i>Campanula sorbata</i>		G. Gauss	Aug-95	10	0	A
<i>Campanula takisimana</i>		T&M	Jul-93	10	3	
<i>Carlina acaulis</i>		ARGS	Aug-94	1	0	A
<i>Centaurea montana</i>	Mountain bluet	I. Berger	Aug-93	5	3	L
<i>Centranthus ruber</i> 'Roseus'	Keys of Heaven	Park	Jul-92	10	0	A
<i>Cephalaria gigantea</i>		T&M	Jul-92	2	0	A
<i>Cerastium maximum</i>		Central/Circle, AK	Sep-96	10	1	K
<i>Chelone lyonii</i>		NEWFS	Jul-94	3	1	J
<i>Chrysanthemum arcticum</i> 'Roseum'	Arctic chrysanthemum	NCRPIS	Aug-90	10	4	E
<i>Chrysanthemum arcticum</i> 'Schwefelglanz'	Arctic chrysanthemum	NCRPIS	Aug-90	9	1	F
<i>Chrysanthemum coccineum</i>		Vaughan's	Jul-92	10	3	
'Robinson's Dark Crimson'						
<i>Chrysanthemum leucanthemum</i>	Oxeye daisy	WNS	Jun-91	10	4	J
<i>Cimicifuga racemosa</i>	Black cohosh	NEWFS	Jul-94	10	1	J
<i>Cimicifuga racemosa</i>	Black snakeroot	T&M	Sep-91	4	0	A
<i>Clematis columbiana</i>	Columbian rock clematis	ANPS	Oct-91	1	0	A
<i>Clematis</i> sp.	Clematis	Montana	Jul-92	3	1	
<i>Clematis tangutica</i>	Golden clematis	PMC	Aug-95	10	1	
<i>Cornus X unalaschkensis</i>		ARGS	Oct-91	2	0	B
<i>Crepis aurea</i>		ARGS	Jul-94	10	0	A
<i>Crocus chrysanthus</i> 'Princess Beatrix'		de Jager	Aug-93	10	2	
<i>Crocus chrysanthus</i> 'Snow Bunting'		de Jager	Aug-93	10	2	J
<i>Crocus tomasinianus</i> 'Ruby Giant'		de Jager	Aug-93	4	2	

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<i>Crocus versicolor</i> 'Picturatus'		de Jager	Aug-93	10	2	
<i>Delphinium grandiflorum</i> 'Blue Elf'		Harris Moran	Jul-91	10	0	A
<i>Delphinium</i> sp. 'Stand Up'		Park	Jul-91	10	1	
<i>Delphinium</i> X <i>Belladonna</i> ( <i>Bellamosum</i> ) 'Improved'		Park	Aug-93	10	2	B, J
<i>Delphinium cardinale</i>		Park	Aug-93	10	0	A
<i>Dianthus arenarius</i>	Sand pink	T&M	Jun-90	2	1	
<i>Dianthus armeria</i>	Deptford pink	NCRPIS	Jun-90	10	1	
<i>Dianthus callizonus</i>	Zoned pink	ARGS	Jun-90	6	4	
<i>Dianthus capitatus</i>		NCRPIS	Jun-90	10	0	A
<i>Dianthus carthusianorum</i>	Carthusian pink	T&M	Jun-90	10	5	J
<i>Dianthus deltoides</i>	Maiden pink	South Slope	Jun-91	10	4	J
<i>Dianthus deltoides</i>	Maiden pink	ARGS	Aug-93	10	2	J
<i>Dianthus freynii</i>		ARGS	Jun-90	6	2	
<i>Dianthus glacialis</i>	Ice pink	T&M	Jun-90	1	0	A
<i>Dianthus gratianopolitanus</i> 'Elfin's Hat'	Cheddar pink	T&M	Jun-90	9	2	
<i>Dianthus gratianopolitanus</i> 'T&M Hybrid Mix'	Cheddar pink	T&M	Jun-90	9	2	
<i>Dianthus pavonius</i>		ARGS	Jun-90	10	3	
<i>Dianthus plumarius</i>	Cottage pink	Novosibirsk, Russia	Aug-91	31	1	
<i>Dianthus plumarius</i>	Cottage pink	Novosibirsk, Russia	Aug-91	19	1	
<i>Dianthus plumarius</i> 'Ballad Blend'	Cottage pink	Stokes	Jul-91	10	0	A
<i>Dianthus plumarius</i> 'Sonata Double Mix'	Cottage pink	Park	Jul-91	10	0	A
<i>Dianthus</i> sp. 'Ipswich Pinks Mixed'		T&M	Aug-93	10	2	J
<i>Dianthus superbus</i>	Lilac pink	NCRPIS	Jun-90	10	0	A
<i>Digitalis ferruginea</i>	Rusty foxglove	ARGS	Jul-94	10	0	A
<i>Digitalis</i> 'John Innes Tetra'		T&M	Aug-95	10	0	A
<i>Digitalis X mertonensis</i>		ARGS	Jul-94	10	0	A
<i>Digitalis X sibirica</i>		ARGS	Jul-94	10	1	J
<i>Dodecatheon cusickii</i>		ARGS	Jul-92	1	2	B
<i>Dodecatheon dentatum</i>		ARGS	Sep-93	1	1	
<i>Dodecatheon meadia</i> 'Album'	White shooting-star	ARGS	Jul-92	1	0	A
<i>Draba incerta</i>		ARGS	Sep-96	10	1	K
<i>Draba kamtschatica</i>		ANPS	Jul-91	10	1	H
<i>Dracocephalum imberbe</i>		T&M	Aug-95	8	1	
<i>Dryas drummondii</i>	Drummond dryad	ANPS	Aug-89	10	1	C
<i>Dryas drummondii</i>	Dryas	Seeds of AK	Jul-94	8	3	G
<i>Echinacea purpurea</i>	Purple coneflower	Johnny's	Jul-93	10	0	A
<i>Echinacea purpurea</i> 'Bravado'		Park	Jul-93	10	0	A
<i>Echinacea purpurea</i> 'White Swan'		Park	Jul-93	10	1	
<i>Erigeron compositus</i>	Fernleaf fleabane	ANPS	Jun-90	10	1	
<i>Erigeron eriocephalus</i>	Fleabane	ANPS	Jun-90	10	0	A

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Table (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS	NUMBER YEARS SURVIVED	COMMENTS
<i>Erigeron eriocephalus</i>	Fleabane	AK	Jul-96	10	0	A
<i>Erigeron karvinskyanus</i> 'Profusion'		Park	Jul-94	10	0	A
<i>Erigeron purpuratus</i>	Fleabane	ANPS	Aug-89	10	1	B, C
<i>Erigeron</i> sp. 'Pink Jewel' (?)		South Slope	Jun-91	10	4	
<i>Erysimum linifolium</i> 'Little Kiss'	Wallflower	Park	Jul-96	10	0	A
<i>Eupatorium rugosum</i>	White snakeroot	NEWFS	Jul-94	1	0	
<i>Eupatorium rugosum</i>	White snakeroot	NEWFS	Sep-91	2	0	A
<i>Galium odoratum</i>	Sweet woodruff	Richters	Jul-93	4	2	
<i>Gentiana freyniana</i>		ARGS	Aug-91	10	4	J
<i>Geranium endressii</i> 'Wargrave'	Endres cranesbill	VB&S	Jun-90	10	1	
<i>Geranium maculatum</i>	Wild geranium	NEWFS	Aug-91	10	0	A
<i>Geranium renardii</i>		ARGS	Sep-91	4	0	A
<i>Geranium sanguineum</i>	Blood-red geranium	VB&S	Jun-90	6	1	
<i>Geranium sanguineum</i> 'Album'		ARGS	Sep-91	2	0	A
<i>Gypsophila cerastioides</i>	Mouse ear gypsophila	ARGS	Jun-90	8	0	A
<i>Gypsophila globulosa</i>		NCRPIS	Jun-90	10	0	A
<i>Gypsophila paniculata</i> 'Snow White'	Baby's-breath	Johnny's	Jul-93	10	2	J
<i>Hedysarum coronarium</i>	French honeysuckle	T&M	Jul-94	10	0	A
<i>Hedysarum mackenzii</i>	Wild sweet pea	ANPS	Aug-89	3	1	B, G
<i>Hedysarum mackenzii</i>	Wild sweet pea	PMC	Jul-92	10	0	A, D, G
<i>Helenium autumnale</i> 'Red and Gold Hybrids'	Autumn sunspray	Ball Seed	Jul-93	10	2	J
<i>Helianthemum nummularium</i>		I. Berger	Aug-93	10	1	
<i>Heracleum sphondylium</i> subsp. <i>montanum</i>	Cow parsnip	NEWFS	Oct-90	6	4	
<i>Heuchera americana</i> 'Palace Purple'	Rock geranium	T&M	Jun-91	10	0	A
<i>Heuchera cylindrica</i> 'Greenfinch'		T&M	Aug-95	10	0	A
<i>Heuchera glabra</i>	Alumroot	ANPS	Jun-91	10	0	A
<i>Heuchera micrantha</i> 'Purple Palace'	Coral bells	Park	Jul-94	9	1	J
<i>Heuchera sanguinea</i> 'Brossingham Hybrids'	Coral bells	T&M	Jun-91	10	0	A
<i>Heuchera</i> X <i>brizoides</i> 'Firefly'	Coral bells	Park	Jul-94	10	1	J
<i>Hypericum calycinum</i>	St. John's wort	Aspen Acres	Aug-96	9	0	A
<i>Hypericum perforatum</i>	Common St. John's wort	SBG	Sep-91	1	0	A
<i>Iris bulleyana</i>	Hollowstem iris	ARGS	Sep-91	1	0	A
<i>Iris missouriensis</i>	Western blue flag	Estes Park, CO	Jul-92	10	3	J
<i>Iris pseudacorus</i>		White Flower	Aug-93	10	2	
<i>Iris scariosa</i>		Russia	Sep-89	7	2	
<i>Iris setosa</i> var. <i>canadensis</i>	Beachhead iris	ARGS	Jul-92	2	2	
<i>Iris sibirica</i>	Siberian iris	AHS	Aug-91	10	4	
<i>Iris sibirica</i> 'Snow Queen'	Siberian iris	ARGS	Aug-91	8	0	A
<i>Jasione laevis</i>		I. Berger	Aug-93	10	1	
<i>Kitaibela vitifolia</i>		NCRPIS	Jun-90	10	0	A
<i>Lavandula angustifolia</i> 'Lady'	English lavender	AAS	Jul-93	10	0	A
<i>Lavandula angustifolia</i> 'Munstead'	English lavender	Johnny's	Jul-93	10	0	A

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<i>Leontopodium alpinum</i>	Edelweiss	T&M	Jul-94	10	1	
<i>Leontopodium stellatum</i>	Edelweiss	Magadan, Russia	Aug-93	10	4	K
<i>Levisticum officinale</i>	Lovage	Vermont Bean	Jul-93	10	1	
<i>Levisticum officinale</i>	Lovage	Vermont Bean	Jun-91	10	1	G
<i>Liatris aspera</i>		NEWFS	Aug-93	5	2	J
<i>Liatris borealis</i>		NEWFS	Aug-93	10	2	
<i>Liatris borealis</i>		NEWFS	Jun-91	10	0	A
<i>Liatris punctata</i>		NEWFS	Aug-93	7	2	
<i>Liatris punctata</i>	Dotted gayfeather	NEWFS	Jun-91	10	0	A
<i>Liatris pycnostachya</i>		NEWFS	Aug-93	10	2	J
<i>Lilium</i> 'America'	Asiatic hybrid lily	Waushara	Jul-93	10	2	J
<i>Lilium</i> 'Apricot Supreme'	Asiatic hybrid lily	B&D	Jul-96	3	0	A
<i>Lilium canadense</i>	Canada lily	AHS	Jul-92	3	3	
<i>Lilium canadense</i>	Canada lily	NEWFS	Jul-92	3	3	
<i>Lilium</i> 'Corsica'	Asiatic hybrid lily	South Slope	Jun-91	10	4	J
<i>Lilium</i> 'Crete'	Asiatic hybrid lily	Waushara	Aug-93	6	2	J
<i>Lilium</i> 'Crimson Beauty'	Asiatic hybrid lily	Waushara	Jul-93	10	2	J
<i>Lilium</i> 'Gold Eagle'	Trumpet lily clone	B&D	Jul-96	1	0	A
<i>Lilium henryi</i>		de Jager	Aug-93	1	2	J
<i>Lilium martagon</i> 'Mix'	Martagon lily	T&M	Jul-92	6	3	J
<i>Lilium</i> 'Pink Perfection'	Asiatic hybrid lily	de Jager	Aug-93	3	2	J
<i>Lilium regale</i>		de Jager	Aug-93	3	2	J
<i>Lilium speciosum</i> 'Rubrum'	Showy Japanese lily	de Jager	Aug-93	2	2	
<i>Lilium superbum</i>	Turk's-cap lily	NEWFS	Jul-92	10	3	
<i>Lilium</i> 'Tirreno'	Asiatic hybrid lily	Waushara	Jul-96	2	0	A
<i>Lilium</i> 'Tristar'	Asiatic hybrid lily	Waushara	Jul-96	6	0	A
<i>Linaria alpina</i>		T&M	Aug-93	10	2	
<i>Linum perenne</i> subsp. <i>lewisii</i>	Blue flax	Nauriaq	Jul-92	10	0	A
<i>Lupinus</i> sp.		Fairbanks Ck., AK	Aug-92	10	0	A, G
<i>Lychnis chalcedonica</i>	Maltese cross	Applewood	Jul-94	10	1	J
<i>Lychnis coronaria</i>	Mullein pink	Aspen Acres	Aug-92	10	0	A
<i>Lychnis flos-cuculi</i>	Cuckoo flower	ARGS	Jul-94	10	1	J
<i>Lychnis flos-jovi</i>	Flower-of-jove	ARGS	Jul-94	10	1	J
<i>Lychnis viscaria</i>		Aspen Acres	Aug-92	10	3	J
<i>Lysimachia punctata</i>	Garden loosestrife	T&M	Aug-90	10	3	
<i>Macleaya microcarpa</i>	Plume poppy	T&M	Jul-94	10	1	
<i>Malva churinskaya</i>		PMC	Jul-94	5	1	J
<i>Malva moschata</i>	Musk mallow	T&M	Jun-90	9	1	J
<i>Malva sylvestris</i>	High mallow	T&M	Jun-90	10	0	A
<i>Mentha piperita</i> var. <i>vulgaris</i>	Peppermint	Richters	Jul-96	5	0	A
<i>Mentha spicata</i>	Spearmint	Richters	Jul-96	2	0	A
<i>Mentha suaveolens</i>	Applemint	Richters	Jul-94	10	1	

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Table (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS	NUMBER YEARS SURVIVED	COMMENTS
<i>Mentha suaveolens</i> 'Variegata'	Pineapple mint	Richters	Jul-94	10	0	
<i>Monarda didyma</i>	Bee balm	NEWFS	Jul-94	10	1	
<i>Monarda didyma</i> 'Marshall's Delight'	Bee balm	Richters	Aug-93	2	1	
<i>Monarda didyma</i> 'Panorama Mix'	Bee balm	Johnny's	Jul-92	8	0	A
<i>Monarda punctata</i>	Dotted mint	NEWFS	Jul-94	10	0	
<i>Muscari armeniacum</i>	Grape hyacinth	J&P	Aug-92	10	3	J
<i>Muscari botryoides</i> 'Album'	Common grape hyacinth	de Jager	Aug-93	10	2	J
<i>Muscari</i> sp. 'Early Giant'		de Jager	Aug-93	10	2	J
<i>Muscari tubergenianum</i>		de Jager	Aug-93	10	2	J
<i>Myosotis alpestris</i>	Alpine forget-me-not	ANPS	Jun-90	10	1	
<i>Myrrhis odorata</i>	Sweet cicely	Richters	Jul-93	3	2	
<i>Papaver alaskanum</i>	Alaska poppy	ANPS	Jun-90	10	1	
<i>Papaver alboroseum</i>		Seeds of Ak	Jul-94	10	1	J
<i>Papaver kernerii</i>	Poppy	ARGS	Jun-90	7	0	A, D
<i>Patrinia scabiosifolia</i> 'Nagoya'	Dahurian patrinia	Park	Jul-91	10	0	A
<i>Penstemon digitalis</i>		NEWFS	Jul-94	10	1	
<i>Penstemon digitalis</i> 'Husker Red'		Park	Jul-96	5	0	A
<i>Penstemon heterophyllus</i> 'Blue of Zurich'		Park	Jul-92	10	0	A
<i>Penstemon procerus</i>	Littleflower penstemon	ANPS	Aug-91	2	1	
<i>Perovskia atriplicifolia</i>	Russian sage	Aspen Acres	Aug-95	1	0	
<i>Phacelia sericea</i>		Upper Yukon R., AK	Jul-94	10	1	H, J
<i>Phaiopsis stylosa</i>		I. Berger	Aug-93	10	0	A
<i>Physalis alkekengi</i> (Franchetii)	Chinese-lantern plant	Burpee	Jul-92	10	3	J
<i>Physostegia virginiana</i>	Obedience	NEWFS	Jul-93	10	2	J
<i>Physostegia virginiana</i>	Obedience	NEWFS	Sep-91	6	0	A
<i>Platycodon grandiflorus</i> 'Hakone Double Blue'	Balloon flower	T&M	Aug-93	10	1	H
<i>Polemonium caeruleum</i> 'Cashmerianum'		T&M	Jul-92	10	3	
<i>Polemonium caeruleum</i> subsp. <i>villosum</i>	Jacob's-ladder	Eagle Summit, AK	Aug-89	4	2	H
<i>Polemonium caeruleum</i> var. <i>lacteum</i> (album)		T&M	Jul-92	10	3	
<i>Polemonium reptans</i>	Creeping polemonium	NEWFS	Oct-91	4	4	J
<i>Polemonium reptans</i> 'Blue Pearl'		Vaughan's	Jul-92	10	3	
<i>Polemonium reptans</i> var. <i>villosum</i>		NEWFS	Jul-92	1	3	J
<i>Polemonium reptans</i> var. <i>villosum</i>		NEWFS	Aug-94	2	1	J
<i>Polemonium</i> sp. 'Apricot Delight'		T&M	Jul-92	5	0	A
<i>Potentilla argyrophylla</i>		T&M	Aug-93	10	3	L
<i>Potentilla hookeriana</i>		AK	Aug-96	10	1	H
<i>Potentilla megalantha</i>		T&M	Aug-93	10	2	J
<i>Potentilla pensylvanica</i>	Pennsylvania cinquefoil	J. Grant	Sep-89	3	0	A
<i>Potentilla recta</i>		ARGS	Jul-94	10	1	J
<i>Potentilla</i> sp.		ANPS	Aug-89	10	1	
<i>Potentilla villosa</i>	Hairy cinquefoil	NEWFS	Jun-91	10	0	A
<i>Potentilla</i> X 'Melton Fire'		T&M	Aug-93	10	2	J

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<i>Primula incana</i>		Fairbanks, AK	Aug-89	10	3	H
<i>Primula scottia</i>	Scotch primrose	ANPS	Jun-91	10	0	A
<i>Primula vulgaris</i> 'Dania Mix'	English primrose	Daehnfeldt	Sep-89	10	0	A
<i>Prunella vulgaris</i>	Common selfheal	ANPS	Aug-89	10	0	A
<i>Pycnanthemum virginianum</i>		NEWFS	Aug-93	10	1	
<i>Ranunculus</i> sp.	Pt. Hope ranunculus	Fairbanks, AK	Jul-96	10	0	A
<i>Rudbeckia fulgida</i> 'Goldsturm'		T&M	Jul-94	10	0	A
<i>Rumex acetosa</i> 'Profusion'	Garden sorrel	Richters	Jul-96	1	1	K
<i>Saponaria officinalis</i>	Bouncing bet	ARGS	Jul-94	10	0	A
<i>Saxifraga nelsoniana</i> (punctata)		ARGS	Sep-96	10	0	A
<i>Sedum acre</i>	Golden-carpet	I. Berger	Aug-93	10	2	
<i>Sidalcea</i> sp. 'Party Girl'		Burpee	Aug-92	10	0	A
<i>Silene caroliniana</i>	Wild pink	NEWFS	Jun-91	6	0	A
<i>Silene schafta</i>		I. Berger	Aug-93	10	2	J
<i>Silene</i> (?) sp.		ANPS	Sep-91	6	0	A
<i>Silphium perfoliatum</i>	Cup plant	NEWFS	Aug-92	8	3	J
<i>Silphium terebinthinaceum</i>	Prairie dock	NEWFS	Jul-91	10	0	A
<i>Sisyrinchium littorale</i>	Blue-eyed grass	ANPS	Jun-91	4	0	A
<i>Smelowskia pyriformis</i>		Alaska Range, AK	Aug-89	3	0	A, D, G
<i>Solidago odora</i>	Sweet goldenrod	NEWFS	Jul-92	10	0	A
<i>Solidago puberula</i>	Downy goldenrod	NEWFS	Sep-91	10	0	A
<i>Solidago rigida</i>	Stiff goldenrod	NEWFS	Aug-94	1	0	A
<i>Stachys grandiflora</i> (macrantha)		ARGS	Jul-94	10	1	
<i>Stachys officinalis</i>	Betony	Richters	Jul-94	10	1	J
<i>Tanacetum vulgare</i>	Common tansy	South Slope	Jun-91	10	4	J
<i>Taraxacum carneocoloratum</i>		Alaska Range, AK	Aug-89	9	1	
<i>Telekia speciosa</i>		T&M	Jun-91	10	0	A
<i>Tellima grandiflora</i>	Alaska fringecup	NEWFS	Sep-89	10	0	A
<i>Thalictrum dioicum</i>	Early meadow rue	NEWFS	Aug-92	3	3	
<i>Thermopsis lupinoides</i>		ARGS	Jul-92	9	0	A
<i>Thymus serpyllum</i>	Lemon variegated thyme	DBG	Jun-91	4	0	A
<i>Thymus serpyllum</i> 'Pink Chintz'		DBG	Jun-91	4	0	A
<i>Thymus</i> sp.	Lemon thyme	DBG	Jun-91	8	0	A
<i>Thymus X citriodorus</i>	Silver thyme	DBG	Jun-91	3	0	A
<i>Thymus X citriodorus</i>	White thyme	DBG	Jun-91	4	0	A
<i>Thymus X citriodorus</i> 'Lemon'	Lemon thyme	DBG	Jun-91	2	0	A
<i>Tiarella cordifolia</i>	Foamflower	NEWFS	Jul-93	10	2	
<i>Tripleurospermum phaeocephalum</i>		ANPS	Jun-90	10	1	
<i>Tulipa batalinii</i>		de Jager	Aug-93	6	2	
<i>Tulipa batalinii</i> 'Bright Gem'		de Jager	Aug-93	10	2	
<i>Tulipa clusiana</i>	Lady tulip	de Jager	Aug-93	10	2	
<i>Tulipa pulchella</i> 'Persian Pearl'	'Tulip	de Jager	Aug-93	10	3	L

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<i>Valeriana sitchensis</i>	Sitka valerian	ANPS	Jun-91	2	0	A
<i>Verbena hastata</i>	Blue vervain	NEWFS	Aug-93	10	1	
<i>Veronica allionii</i>		ARGS	Jul-94	10	2	L
<i>Veronica alpina</i>		ARGS	Jul-94	6	1	
<i>Veronica fruticulosa</i>		ARGS	Aug-92	10	0	A
<i>Veronica saturejoides</i>		ARGS	Aug-92	2	0	A
<i>Veronica spicata</i> 'Nana'		ARGS	Jul-94	10	3	
<i>Viola labradorica</i>	Labrador violet	NEWFS	Jul-92	4	0	A
<i>Viola pedata</i>	Bird-foot viola	NEWFS	Sep-91	10	0	A
<i>Viola sororia</i> 'Freckles'	Woolly blue violet	Park	Jul-96	8	0	A
<i>Xerophyllum tenax</i>	Bear grass	Lawyer	Aug-90	10	1	E
<i>Zigadenus glaucus</i>	White camas	NEWFS	Aug-92	3	0	A
<b>FERNS</b>						
<i>Adiantum aleuticum</i>	Western maidenhair	HFF	Jun-95	4	1	
<i>Adiantum aleuticum</i>	Western maidenhair fern	HFF	Jul-96	3	0	A
<i>Adiantum venustum</i>		HFF	Sep-96	5	0	A
<i>Asplenium (Phyllitis) scolopendrium</i>	Hart's-tongue fern	HFF	Jul-94	5	1	
<i>Asplenium trichomanes</i>	Maidenhair spleenwort	HFF	Sep-96	5	0	A
<i>Cystopteris bulbifera</i>	Bulblet bladder fern	NEWFS	Jul-93	10	3	
<i>Cystopteris protrusa</i>	Lowland brittle fern	NEWFS	Jul-93	10	0	A
<i>Dennstaedtia punctilobula</i>	Hay-scented fern	NEWFS	Jul-93	2	1	
<i>Dryopteris affinis</i>		HFF	Sep-96	5	0	A
<i>Dryopteris arguta</i>	Coastal wood fern	HFF	Jul-94	5	1	
<i>Dryopteris bissetiana</i>		HFF	Jul-94	5	0	A
<i>Dryopteris campyloptera (austriaca)</i>	Mountain wood fern	NEWFS	Jul-93	10	3	L
<i>Dryopteris celsa</i>	Log fern	HFF	Sep-96	5	0	A
<i>Dryopteris championii</i>		HFF	Sep-96	5	0	A
<i>Dryopteris cycadina (atrata)</i>		HFF	Sep-96	5	0	A
<i>Dryopteris dilatata</i> 'Jimmy Dyce'		HFF	Jul-94	5	1	J
<i>Dryopteris dilatata</i> 'Lepidota cristata'		HFF	Jul-94	5	1	
<i>Dryopteris filix-mas</i> 'Undulata robusta'		HFF	Jul-94	5	1	J
<i>Dryopteris fragrans</i>	Fragrant wood fern	AK	Jul-96	1	0	A
<i>Dryopteris marginalis</i>	Marginal wood fern	NEWFS	Jul-93	10	3	L
<i>Dryopteris pseudofilix-mas</i>		HFF	Sep-96	5	0	A
<i>Dryopteris sabae</i>	Wood shield fern	HFF	Jun-95	2	0	A
<i>Dryopteris sacrosancta</i>		HFF	Sep-96	5	0	A
<i>Dryopteris sacrosancta</i>	Wood fern	HFF	Jun-95	5	1	
<i>Dryopteris sublacera</i>		HFF	Sep-96	10	0	A
<i>Dryopteris wallichiana</i>		HFF	Sep-96	5	0	A
<i>Dryopteris wallichiana</i>	Wood fern	HFF	Jun-95	3	0	A
<i>Lygodium japonicum</i>	Hartford fern	HFF	Sep-96	1	0	A

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<i>Osmunda regalis</i>	Royal fern	HFF	Jul-94	4	0	A
<i>Osmunda regalis</i> 'Purpurascens'	Royal fern	HFF	Jul-94	5	0	A
<i>Osmunda regalis</i> 'Undulata'	Royal fern	HFF	Jul-94	1	0	A
<i>Phegopteris (Thelypteris) decursive-pinnata</i>	Beechwood fern	HFF	Jul-94	5	0	A
<i>Polystichum acrostichoides</i>	Christmas fern	NEWFS	Jul-93	6	2	
<i>Polystichum aleuticum</i>	Aleutian shield fern	Adak, AK	Aug-93	2	0	A
<i>Polystichum lachenense</i>		Nantou Co., Taiwan, China	Aug-93	2	0	A
<i>Polystichum lemmonii</i>	Shasta fern	HFF	Jul-96	5	0	A
<i>Polystichum lemmonii</i>	Shasta holly fern	HFF	Jun-95	9?	1	
<i>Polystichum lonchitis</i>	Northern holly fern	Adak, AK	Jul-93	2	0	A
<i>Polystichum setiferum</i>		HFF	Sep-96	5	0	A
<i>Polystichum setiferum</i>	English shield fern	HFF	Jun-95	5	0	A
<i>Polystichum setiferum</i> 'Divisilobum'?	Divided soft shield fern	HFF	Jul-94	5	0	A
<i>Pteris excelsa</i>	Dish fern	HFF	Jun-95	2	0	A
<i>Thelypteris viridifrons</i>		HFF	Jun-95	4	0	A
<i>Woodwardia fimbriata</i>	Chain fern	HFF	Jun-95	3	0	A
<b>ORNAMENTAL GRASSES</b>						
<i>Andropogon gerardii</i> 'Pawnee'	Big bluestem	Bluebird	Aug-90	3	2	
<i>Arrhenatherum elatius</i> 'Variegatum'	Tall oat grass	Bluebird	Aug-90	2	1	
<i>Bouteloua curtipendula</i> 'Trailway'	Sideoats grama	Bluebird	Aug-90	4	0	A
<i>Bouteloua gracilis</i>	Blue grama	Bluebird	Aug-89	7	1	
<i>Calamagrostis acutiflora</i> var. <i>stricta</i>	Feather reed grass	Bluebird	Aug-90	1	5	J
<i>Calamagrostis arundinacea</i> 'Karl Foerster'		Bluebird	Aug-90	2	5	J
<i>Carex grayi</i>		NEWFS	Aug-94	4	1	J
<i>Carex morrowii</i> var. <i>aureo-variegata</i> 'Old Gold'	Variiegated Japanese sedge	Bluebird	Aug-89	11	0	A
<i>Carex muskingumensis</i>	Palm sedge	NEWFS	Jul-90	8	1	F
<i>Carex nigra</i>	Black sedge	Bluebird	Jul-90	9	1	F
<i>Carex ornithopoda</i> 'Variegata'		Bluebird	Aug-89	10	1	
<i>Carex pendula</i>	Sedge grass	Bluebird	Aug-89	11	0	A
<i>Chasmanthium latifolium</i>	Sea oats	Bluebird	Aug-90	1	0	A
<i>Deschampsia beringensis</i> 'Norcoast'	Bering hair grass	PMC	Jul-92	10	4	L
<i>Deschampsia caespitosa</i> 'Bronzeschleier'	Tufted hair grass	Bluebird	Aug-90	2	2	D
<i>Deschampsia caespitosa</i> 'Goldgehaenge'	Tufted hair grass	Bluebird	Aug-90	4	5	J
<i>Deschampsia caespitosa</i> 'Goldschleier'	Tufted hair grass	Bluebird	Aug-90	1	1	
<i>Eragrostis trichodes</i>	Sand love grass	Bluebird	Aug-89	10	0	A
<i>Festuca scoparia</i>	Bearskin grass	Bluebird	Aug-90	1	1	
<i>Festuca valesiaca</i> 'Glauca'	Swiss fescue	Bluebird	Aug-90	3	5	
<i>Helictotrichon sempervirens</i>	Blue oat grass	Bluebird	Aug-90	1	2	
<i>Hystris patula</i>	Bottle brush grass	Bluebird	Aug-89	12	1	F
<i>Imperata cylindrica</i> var. <i>rubra</i> 'Red Baron'	Japanese blood grass	Bluebird	Aug-90	4	0	A

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Tabl (continued)

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<i>Melica ciliata</i>	Silky-spike melic	Bluebird	Aug-89	10	3	D
<i>Panicum virgatum</i> 'Pathfinder'	Switch-grass	Bluebird	Aug-89	12	0	A
<i>Pennisetum alopecuroides</i>	Chinese pennisetum	Bluebird	Aug-89	11	0	A
<i>Pennisetum flaccidum</i>		Bluebird	Aug-89	10	0	A
<i>Poa alpina</i> 'Gruening'	Alpine bluegrass	PMC	Jul-92	10	3	J
<i>Schizachyrium scoparium</i> 'Blaze'	Little bluestem	Bluebird	Aug-89	11	1	
<i>Sesleria autumnalis</i>	Autumn moor grass	Bluebird	Aug-90	2	1	
<i>Sorghastrum avenaceum</i>	Indian grass	Bluebird	Aug-89	11	0	A
<i>Sporobolus airoides</i>	Greater dropseed	Bluebird	Aug-90	2	0	A
<b>WOODY PERENNIALS</b>						
<i>Acer saccharum</i>	Sugar maple	NCRPIS	Jul-92	3	2	E
<i>Actinidia kolomikta</i>	Kolomikta kiwi	BCN	Sep-89	5	3	I
<i>Ampelopsis glandulosa</i> var. <i>brevipedunculata</i>	Porcelain vine	NCRPIS	Jul-93	5	2	J
<i>Aronia arbutifolia</i>	Chokeberry	NCRPIS	Jul-92	3	4	L
<i>Berberis koreana</i> X <i>thunbergii</i> 'Emerald Carousel'	Hybrid barberry	NCRPIS	Jul-93	5	2	J
<i>Betula alleghaniensis</i> 'Morton No. 10'	Yellow birch	NCRPIS	Jul-94	5	2	D
<i>Betula occidentalis</i>	Water birch	ANPS	Sep-89	4	0	A
<i>Betula populifolia</i>	Gray birch	Barnaul, Russia	Aug-91	5	0	A
<i>Caragana arborescens</i>	Siberian pea	Chamal R., Gorno-Altaysk, Russia	Sep-91	5	1	
<i>Caragana manshurica</i>		NCRPIS	Sep-90	5	1	
<i>Ceanothus integerrimus</i>	Deerbush	Schumacher	Sep-89	5	0	A
<i>Celtis</i> sp.	Northern hackberry	Smith	Sep-96	5	0	A
<i>Cercocarpus montanus</i>	Mountain mahogany	NCRPIS	Sep-89	1	0	A
<i>Cornus sericea</i> forma <i>baileyi</i>	Red-osier dogwood	Smith	May-96	5	0	A, H
<i>Cotoneaster horizontalis</i>	Rock cotoneaster	Schumacher	Sep-89	5	1	
<i>Cotoneaster horizontalis</i>	Rock cotoneaster	Schumacher	Sep-91	5	1	
<i>Cotoneaster integerrimus</i> 'Centennial'	European cotoneaster	NCRPIS	Sep-89	5	1	
<i>Cotoneaster nitens</i>	Pinkblush cotoneaster	NCRPIS	Sep-91	5	1	
<i>Crataegus monogyna</i>	Single-seed hawthorn	NCRPIS	Jun-90	3	2	E
<i>Diervilla</i> X <i>splendens</i>	Bush honeysuckle	NCRPIS	Jun-96	3	0	A, H
<i>Elaeagnus angustifolia</i> 'King's Red'	King's red Russian olive	Lawyer	Jul-94	5	1	J
<i>Forsythia ovata</i>	Early forsythia	NCRPIS	Sep-90	5	1	
<i>Jamesia americana</i>		NCRPIS	Jul-92	1	1	
<i>Larix decidua</i>	European larch	PMC	Sep-90	5	2	
<i>Larix gmelinii</i> var. <i>gmelinii</i>	Dahurian larch	PMC	Sep-90	4	2	
<i>Larix Gmelinii</i> var. <i>olgensis</i>	Dahurian larch	PMC	Sep-90	5	2	
<i>Larix Gmelinii</i> var. <i>principis</i>	Dahurian larch	PMC	Sep-90	5	2	E

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<i>Lonicera hybrida</i> 'Honey Rose'		NCRPIS	Aug-93	4	2	J
<i>Lonicera maackã</i>	Amur honeysuckle	NCRPIS	Jun-90	5	2	
<i>Lonicera tatarica</i> 'Siberica'	Tatarian honeysuckle	NCRPIS	Jun-90	3	2	
<i>Mahonia repens</i>		NCRPIS	Jul-91	3	1	J
<i>Malus sargentii</i>		Hudson	Jul-92	5	4	L
<i>Malus turkmenoma</i>		J. Want	Jul-94	5	2	L
<i>Myrica gale</i>	Sweet gale	Fish Creek, AK	Aug-92	2	0	A
<i>Nyssa sylvatica</i>	Sour gum	NCRPIS	Jun-96	5	0	A
<i>Parthenocissus inserta</i>		NCRPIS	Jul-92	3	3	
<i>Physocarpus opulifolius</i> 'Nugget'	Ninebark	NCRPIS	Sep-89	5	3	I
<i>Picea obovata</i> (blue form)	Siberian spruce	SAAS	Jul-92	5	0	A
<i>Pinus cembra</i> var. <i>sibirica</i>	Swiss stone pine	SAAS	Jul-92	3	0	A
<i>Pinus peuce</i>	Macedonian pine	NCRPIS	Jul-94	3	2	L
<i>Pinus pumila</i>	Dwarf stone pine	Schumacher	Sep-89	5	3	E
<i>Pinus sibiricus</i>	Siberian pine	SAAS	Jul-92	2	0	A
<i>Populus deltoides</i> X <i>Petrowskiana</i>		NCRPIS	Jun-90	5	2	I
'Brook #6'						
<i>Populus</i> 'Tower'		PMC	Jun-90	2	2	I
<i>Potentilla fruticosa</i> 'Red Ace'	Shrubby cinquefoil	Smith	May-96	5	0	A, H
<i>Potentilla fruticosa</i> 'Tangerine'	Shrubby cinquefoil	Smith	May-96	5	0	A, H
<i>Potentilla mandshurica</i>		SAAS	Sep-91	10	1	
<i>Prunus sargentii</i>	Sargent cherry	PMC	Jun-90	5	1	
<i>Prunus</i> sp.	Manchurian apricot	Denver, CO	Jul-94	5	1	
<i>Prunus tenella</i>	Dwarf Russian almond	Lawyer	Aug-93	1	2	J
<i>Prunus tenella</i>	Dwarf Russian almond	Lawyer	Sep-91	1	1	I
<i>Pyrus pashia</i>		Hudson	Jul-92	2	0	A
<i>Rhododendron canadense</i>	Rhodora	NEWFS	Aug-91	5	0	A
<i>Rhododendron dahuricum</i>		Chamal, Russia	Jul-93	5	1	E
<i>Rhus trilobata</i> 'Bighorn'	Skunkbush	NCRPIS	Jul-93	5	0	A
<i>Ribes</i> 'Hinnomaken Keltainen'		NCGR	Jul-94	1	0	A
<i>Ribes nidigrolaria</i>	Jostaberry	BCN	Sep-89	4	2	I
<i>Ribes nigrum</i> 'Ben Moore'	Black currant	PMC	Jul-94	1	1	J
<i>Ribes nigrum</i> 'Kantata 50'	Black currant	NCGR	Jul-94	2	0	A
<i>Ribes</i> sp.		NCGR	Jul-94	2	2	
<i>Ribes</i> sp.	Spineless gooseberry	F. Dorward, YT, Canada	Jul-94	1	2	
<i>Rosa eglanteria</i>	Eglantine rose	NCRPIS	Aug-91	5	0	A
<i>Rosa</i> 'Morden Centennial'		The Roseraie	May-95	5	0	A
<i>Rosa</i> 'Morden Ruby'		The Roseraie	May-95	5	0	A
<i>Rosa multiflora</i>	Baby rose	Seiberling	Aug-91	5	0	A
<i>Rosa multiflora</i>	Baby rose	Hermitage, PA	Aug-91	5	0	A
<i>Rosa</i> sp. 12B		PMC	Aug-91	1	1	I
<i>Rosa</i> sp. 'à Parfum de l' Hay'		PMC	Aug-91	4	1	I

Key to Comments: A=did not survive first winter; B=mechanical injury caused loss; C=spring drought may have caused mortality; D=weak going into fall; E=very weak after winter; F=late spring snow may have increased disease &/or mortality; G=may require better (faster?) drainage; H=high summer mortality; I=early snowfall may have increased mortality; J= inadequate snow cover; K=herbicide damage; L=residual injury from inadequate snowfall.

Tabl (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS	NUMBER YEARS SURVIVED	COMMENTS
<i>Rosa</i> 'The Fairy'		J&P	Jun-96	3	0	A
<i>Rubus caesius</i>		NCGR	Jul-94	5	2	B?
<i>Salix alba</i> 'Argentea'	White willow	NCRPIS	Jul-94	5	1	J
<i>Salix alba</i> 'Vitellina'	Golden willow	BCN	Sep-89	5	3	I
<i>Salix purpurea</i> 'Leicestershire Dicks'	Purple osier	NCRPIS	Jul-94	5	1	J
<i>Securinega suffruticosa</i>		NCRPIS	Jul-94	5	1	J
<i>Sorbus reducta</i>		NCRPIS	Jun-90	2	0	A, D
<i>Spiraea</i> 'Fairy Queen'		Washburn	Jul-94	3	1	J
<i>Spiraea</i> sp.		J. Rockney	Jul-92	5	0	A, I
<i>Staphylea bumalda</i>	Bladdernut	NCRPIS	Aug-93	4	1	
<i>Syringa pekinensis</i>	Pekin lilac	NCRPIS	Sep-91	3	3	E
<i>Viburnum</i> 'Emerald Triumph'		NCRPIS	Jul-92	3	1	

Key to Comments: A=did not survive first winter; B=mechanical injury caused loss; C=spring drought may have caused mortality; D=weak going into fall; E=very weak after winter; F=late spring snow may have increased disease &/or mortality; G=may require better (faster?) drainage; H=high summer mortality; I=early snowfall may have increased mortality; J=inadequate snow cover; K=herbicide damage; L=residual injury from inadequate snowfall.



Table 4 'antings from 1997 that have not yet been evaluated for winter survival.

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS
<b>HERBACEOUS PERENNIALS</b>				
<i>Allium schoenoprasum</i>	Fine leaf chive	Johnny's	17-Jul	10
<i>Allium schoenoprasum</i> 'Staro'	Chives	Johnny's	17-Jul	10
<i>Allium schoenoprasum</i> 'Sterile'	Profusion® chives	Richters	17-Jul	4
<i>Aquilegia flavescens</i>	Columbine	ARGS	24-Jul	10
<i>Asclepias incarnata</i> 'Ice Follies'	Swamp milkweed	Johnny's	16-Jul	10
<i>Asparagus officinalis</i> 'Sweet Purple'	Garden asparagus	Park	18-Aug	10
<i>Barbarea orthoceras</i>	Winter cress	D. Swanson	21-Aug	10
<i>Campanula persicifolia</i> 'Blue Bell'	Willow bellflower	Park	24-Jul	10
<i>Cerastium tomentosum</i> 'Silver Carpet'	Snow-in-summer	Stokes	24-Jul	10
<i>Chrysanthemum coccineum</i> 'T&M Superb Mixture'	Pyrethum	T&M	24-Jul	10
<i>Delphinium</i> 'Clear Springs Lavender'	Delphinium	PA	15-Jul	10
<i>Delphinium</i> 'Clear Springs Light Blue Shades'	Delphinium	PA	15-Jul	10
<i>Delphinium</i> 'Clear Springs Mid-Blue Shades'	Delphinium	PA	15-Jul	10
<i>Delphinium</i> 'Clear Springs White'	Delphinium	PA	15-Jul	10
<i>Dianthus amurensis</i> 'Siberian Blues'		Alplains	16-Jul	10
<i>Dianthus deltoides</i> 'Arctic Fire'	Maiden pink	Park	16-Jul	10
<i>Dianthus giganteus</i>		Alplains	16-Jul	10
<i>Dianthus</i> 'Ipswich Pinks Mixed'	Pinks	T&M	16-Jul	10
<i>Dianthus knappii</i>		Alplains	16-Jul	10
<i>Dianthus pavonius</i> ( <i>neglectus</i> )		Alplains	24-Jul	3
<i>Dianthus subcaulis</i>		Alplains	16-Jul	10
<i>Digitalis obscura</i>	Willow-leaved foxglove	Alplains	24-Jul	10
<i>Dracocephalum botryoides</i>		Alplains	24-Jul	6
<i>Heuchera parviflora</i> var. <i>nivalis</i>	Coral bells	Alplains	21-Aug	10
<i>Hylotelephium maximum</i>		Gardens North	15-Jul	10
<i>Lilium</i> '84-39-1'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Golden Queen'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Juanita'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Nikita'	Asiatic hybrid lily	Waushara	15-Jul	7
<i>Lilium</i> 'Paulus Poller'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Santa Cruz'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Shirley'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Sidney'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lilium</i> 'Serbet'	Asiatic hybrid lily	Waushara	15-Jul	10
<i>Lychnis alpina</i>	Alpine campion	Gardens North	24-Jul	10
<i>Lychnis coronaria</i>	Rose campion	Gardens North	24-Jul	10
<i>Malva sylvestris</i>	High mallow	Fairbanks, AK	24-Jul	10
<i>Marrubium vulgare</i> 'Green Pompom'	Common horehound	T&M	15-Jul	10
<i>Mentha X piperita</i> var. <i>citrata</i>	Lemon mint	T&M	24-Jul	10
<i>Myosotis scorpioides</i> 'Spring Carpet'	Forget-me-not	DeGiorgio	24-Jul	10

Tab . (continued)

SCIENTIFIC NAME	COMMON NAME	SOURCE	DATE PLANTED	NUMBER OF PLANTS
<i>Myosotis sylvatica</i> 'Rose Light'	Garden forget-me-not	DeGiorgio	24-Jul	10
<i>Paeonia lutea</i> var. <i>Ludlowii</i>	Tibetan peony	I. Rieck (Germany)	15-Jul	10
<i>Paeonia mascula</i> ?	Peony	I. Rieck (Germany)	15-Jul	4
<i>Paeonia wittmanniana</i> hybrid	Peony	I. Rieck (Germany)	15-Jul	1
<i>Penstemon harbourii</i>	Penstemon	Alplains	24-Jul	10
<i>Penstemon</i> 'Saskatoon Hybrid'	Penstemon	Alplains	16-Jul	10
<i>Potentilla angelica</i> X <i>nepalensis</i> ( <i>P.</i> X <i>tonguei</i> )			24-Jul	10
<i>Potentilla uniflora</i>	Single-flowered potentilla	Alplains	16-Jul	10
<i>Ranunculus asiaticus</i>	Persian buttercup	Van Bloem	7-Jun	9
<i>Rheum palmatum</i> var. <i>tanguticum</i>	Ornamental rhubarb	Gardens North	21-Aug	3
<i>Rubus arcticus</i> 'Kenai Carpet'	Nagoonberry	NCRPIS	10-Jul	5
<i>Sanguisorba sitchensis</i>	Sitka burnet	Seeds of AK	21-Aug	10
<i>Saxifraga flagellaris</i>		ARGS	21-Aug	9
<i>Solidago</i> sp. 'Baby Gold'	Goldenrod	DeGiorgio	24-Jul	10
<i>Tanacetum vulgare</i> var. <i>crispum</i>	Fernleaf tansy	Richters	17-Jul	1
<i>Veronicastrum virginicum</i>	Culver's root	Alplains	24-Jul	10
<b>ORNAMENTAL GRASS</b>				
<i>Festuca rubra</i>	Kuparuk fescue	J. McKendrick	7/14/97	10
<i>Hierochloa odorata</i>	Vanilla grass	Seeds of AK	7/14/97	10
<b>WOODY PERENNIALS</b>				
<i>Acer ginnala</i>	Amur maple	NCRPIS	16-Jul	5
<i>Betula pendula</i>	European white birch	NCRPIS	10-Jul	5
<i>Ceanothus velutinus</i>	Snow brush	Lawyer	21-Aug	5
<i>Cornus sericea</i> ssp. <i>sericea</i> 'Ruby'	Red-osier dogwood	NCRPIS	10-Jul	5
<i>Juniperus horizontalis</i> X <i>virginiana</i> or <i>scopulorum</i>	Hybrid juniper	NCRPIS	10-Jul	5
<i>Juniperus horizontalis</i> 'Youngstown'	Creeping juniper	P&M	14-Aug	3
<i>Lonicera japonica</i> 'Halliana'	Hall's Japanese honeysuckle	Country Store	21-Aug	1
<i>Parthenocissus tricuspidata</i>	Boston ivy	NCRPIS	10-Jul	5
<i>Potentilla fruticosa</i> 'Gold Drop'	Shrubby cinquefoil	Lawyer	21-Aug	4
<i>Rosa rugosa</i> 'Rubra'	Turkestan rose	Lawyer	14-Aug	5
<i>Sorbaria</i> hybrid 10741	False spirea	NCRPIS (Poland)	10-Jul	5
<i>Sorbaria sorbifolia</i> 13199	False spirea	NCRPIS (N. Korea)	10-Jul	5
<i>Sorbaria sorbifolia</i> 20178	False spirea	NCRPIS (S. Korea)	10-Jul	5
<i>Sorbaria sorbifolia</i> 21773	False spirea	NCRPIS (China)	10-Jul	5

Table 5 *nual flowers evaluated in 1997*

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	...COMMENDED SPACING(IN)
			JUN	JUL	AUG	SEP		
African Daisy	Salmon Queen	T&M		*****	*****		16	8
Agastache	Fragrant Delight Mixed	T & M	*****	*****		*****	35	8-10
Agastache	Heather Queen	Park	*****	*****	*****	*****	36	8-10
Ageratum	Blue Horizon	Ball		*****	*****	*****	25	10
Ageratum	Florist's White	Cook's		*****	*****	*****	17	10
Ageratum	Hawaii Royal	Ball		*****	*****	*****	3	6
Ageratum	Hawaii White	Ball		*****	*****	*****	5	6
Alyssum	Golf Pastel	Clause	*****	*****	*****	*****	4	6
Alyssum	Snow Crystals	Stokes	*****	*****	*****	*****	6	6
Amaranthus	Caudatus	Stokes	*****	*****	*****	*****	28	12
Aster	Blue Mini-Lady	Stokes		*****	*****		12	8
Aster	Milady Mix	Vaughan's		*****	*****		11	8
Aster	Milady White	Ball		*****	*****		11	8
Aster	Moreketa	T&M		*****	*****		8	8
Aster	Seastar Mix	Park		*****	*****		17	10
Bidens	Golden Goddess	Park	*****	*****	*****	*****	34	10
Blue lace flower		Shepherd's		*****	*****		24	10
Brachycome (Swan river daisy)	Blue Star	T&M		*****	*****		13	8
Brachycome (Swan river daisy)	Purple Splendor	Stokes		*****	*****		11	8
Calendula	Bon Bon Apricot	Vaughan's	*****	*****	*****	*****	11	8
Calendula	Bon Bon Orange	Vaughan's	*****	*****	*****	*****	8	8
Calendula	Bon Bon Yellow	Vaughan's	*****	*****	*****	*****	16	8
Calendula	Indian Prince	Stokes		*****	*****	*****	21	10
California poppy	Apricot Chiffon	Park	*****	*****	*****	*****	12	8
California poppy	Rose Chiffon	Park	*****	*****	*****	*****	8	8
Carnation	Essence of Red	Ball		*****	*****	*****	8	7
Carnation	Monarch Mix	Harris		*****	*****	*****	8	7
Carnation	Monarch Orange	Ball		*****	*****	*****	7	7
Carnation	Monarch Pink	Ball		*****	*****	*****	7½	7
Celosia	Apricot Brandy	Vaughan's		*****	*****	*****	11	7
Celosia	Castle Pink	AAS		*****	*****	*****	11	6
Celosia	Century Mixed	AAS		*****	*****	*****	17	6
Celosia	Kewpie Red	Stokes		*****	*****	*****	12	6
Celosia	New Look	AAS		*****	*****	*****	11	8
Celosia	Prestige Scarlet	AAS		*****	*****	*****	9	6
Celosia	Red Glow	PAS		*****	*****	*****	9	6
Chrysanthemum multicaule	Yellow Buttons	Ball	*****	*****	*****	*****	11	10
Chrysanthemum paludosum	White Buttons	Ball	*****	*****	*****	*****	15	10
Clarkia	Apple Blossom	T&M		*****	*****	*****	23	10
Clarkia	Mixed	Stokes		*****	*****	*****	20	10

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT		FRAGRANT	CUTTING	DRIED	COMMENTS
		flowers	foliage				
light tangerine	2¼	+	+				
mix-lavender, white	4 x 1*	+	+		+		bloomed early & late, attractive to honey bees
purple	7 x 2½*	+	+		+		excellent
violet blue	2½*	-	-		+		excellent
white	2½*	-	-		+		very good
purple	1¼*	-	-				good, needs deadheading
white	1*	-	-				very good, resistant to rain damage
mix-pink, purple, white	¾*	+					
white	1*	+		+			
burgundy	8 x ¼*	+	-		+	+	very good, flowers form long "ropes"
violet	3						excellent mid-season
mix	3	-	-				nice color mix, some disease
white	3	-	-				some disease, rain damage on blooms
light yellow to cream	4						very nice mid-season, prone to rain damage
mix	4	-	-		+		disease problems
gold	1	+	+				excellent, aggressive habit, cosmos-like blooms & foliage
blue	1½*						attractive blooms, disease problems
purple	1	+					excellent
violet blue/yellow centers	1¼	+	+				excellent, fine-textured foliage, a little disease
pale apricot	2¼	+	+				excellent, needs deadheading
orange	2½	+	+				excellent, needs deadheading
yellow	2¼	+	+				excellent, needs deadheading
red-orange/red reverse	2¼	+	+		+		striking color, needs deadheading
pale orange/rose reverse	2		+				very good, but lacy foliage allows weeds to grow through
light rose	1¾						early damage by drought
red	2		+	+			excellent
mix	2½	+	+	+			very nice
salmon pink	1¾		+				very good, needs deadheading
deep pink	2¼	+	+	+			excellent
apricot	6 x 2*	-	-			+	attractive with bronze foliage, requires full sun & warm weather
neon pink	3½ x 2½*	-	-			+	very good, compact, requires full sun & warm weather
mix	6 x 1*	-	-				some disease problems
bright red	4 x 2*	-	-			+	excellent; red-edged foliage, requires full sun & warm weather
red	4 x 1¼*	-	-			+	excellent; late, deep red foliage, requires full sun & warm weather
	3 x 1¼*		-				attractive red foliage, never really bloomed
hot pink	1½ x 2*	-	-				very good; late, uniform, requires full sun & warm weather
yellow	1½	+	+				excellent, low rosette of leaves makes this one difficult to weed
white/yellow center	1¼	+	+				excellent, mounding form
pale pink	1¼	+	+		+		needs some staking
mix	6				+		nice mix, a little early die-off, needs staking

Table 1 (continued)

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	RECOMMENDED SPACING (IN)
			JUN	JUL	AUG	SEP		
Cleome	Helen Campbell	Ball		**	*****		54	10
Cleome	Queen Mix	Burpee		**	*****		55	10
Coreopsis	Early Sunrise	AAS		**	*****		14	9
Cosmos	Gazebo Mix	Park		**	*****		34	11
Cosmos	Lemon Twist	Park	**	**	*****		14	9
Cosmos	Sonata Pink Blush	Shepherd's	**	**	*****		25	10
Cosmos	Sonata White	Ball	**	**	*****		25	10
Cosmos	Versailles Blush-Pink	Stokes		**	*****		40	11
Cosmos	Versailles Carmine	Burpee		**	*****		46	11
Cynoglossum	Blue Shower	Cook's		**	*****		28	10
Dahlia	Calico Mixed	Clause	**	**	*****		16	10
Dahlia	Diablo Mixed	Stokes	**	**	*****		21	10
Dahlia	Mignon Mix	Vaughan's	**	**	*****		19	10
Dahlia	Rigoletto	Vaughan's	**	**	*****		16	10
Dianthus	Coral Charm	Stokes		**	*****		8	7
Dianthus	Floral Lace Cherry	Ball	*	**	*****		8½	8
Dianthus	Floral Lace Purple	Ball	**	**	*****		12	8
Dianthus	Floral Lace Rose Bicolor	Ball	**	**	*****		12	8
Dianthus	Floral Lace Violet	Ball	**	**	*****		11	8
Dianthus	Floral Lace Violet Picotee	Ball	**	**	*****		12	8
Dianthus	Ideal Red	Park	**	**	*****		12	8
Dianthus	Pink Charm	Vaughan's	**	**	*****		9	8
Dianthus	Princess Crimson	Harris	**	**	*****		10	8
Dianthus	Princess Mix	Harris	**	**	*****		12	8
Dianthus	Princess Salmon	Vaughan's	*	**	*****		8	8
Dianthus	Raspberry Parfait	Harris	**	**	*****		6	8
Dianthus	Telstar Picotee	AAS	*	**	*****		12	8
Diascia (Twinspur)	Pink Queen	Ball	**	**	*****		17	7
Digitalis	Foxy	Ball		**	*****		33	12
Dimorphotheca (African daisy)	Aurantiaca Hybrids	Stokes	**	**	*****		28	8
Dusty miller	Silver Dust	Vaughan's		**	*****		7	8
Dusty miller	Silver Feather	Harris		**	*****		18	9
Flowering cabbage	Dynasty Pink	Ball		**	*****		16	18
Flowering cabbage	Pink Beauty	Harris		**	*****		11	18
Flowering kale	Coral Prince	Ball		**	*****		18	24
Gaillardia	Red Plume	AAS		**	*****		22	9
Gazania	Chansonette Mixture	Harris	**	**	*****		13	8
Gazania	Daybreak Bronze	Stokes	**	**	*****		9	8
Gazania	Daybreak Mix	Stokes	**	**	*****		13	8
Gazania	Ministar Tangerine	Ball	**	**	*****		11	8

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT flowers	FROST TOLERANT foliage	FRAGRANT	CUTTING	DRIED	COMMENTS
white	5 x 5*	-	-		+		excellent, watch out for thorns
mix-white, pink, purple	6 x 5	-	-		+		excellent, watch out for thorns
yellow	2¼	+	+		+		excellent
mix-pink, rose, white	4¼	-	-		+		excellent, could use deadheading
lemon yellow	1.	-	-				very nice, but some disease early
lavender pink	4¼	-	-		+		excellent, large blooms
white	3	-	-		+		excellent, could use deadheading
pale pink	4¼	-	-		+		excellent, could use deadheading
deep red violet	4½	-	-		+		striking color, very good
sky blue	¼		+		+		excellent performance in Aug.
mix	3½	-	-		+		excellent
mix	4¼	-	-		+		excellent, good color mix, attractive dark foliage
mix	3½	-	-		+		excellent, single blooms, lots of reds in mix
mix	3½	-	-		+		excellent
coral red	2	+	+				very nice
deep cherry	2	+	+				very good until smothered by weeds
magenta	2	+	+				excellent
rose/light edge	1¾	+	+				excellent
deep raspberry	2	+	+				excellent, beautiful velvety petals
purple(a few cherry red)/white edges	1½	+	+				very good
cherry red	1½	+	+				excellent
pink	2	+	+				excellent
crimson	1¼	+	+				excellent, vibrant color
mix	1½	+	+				excellent
deep salmon pink	1½	+	+				excellent
rose/burgundy center	1½	+	+				excellent
red violet/white edges	1	+	+				excellent
pink	½	+	+				excellent mid-season performer, can't compete with weeds
mix-white, yellow, pink, purple	23 x 4¼*	+	+		+		very good, late
mix-orange, yellow, white	2¾	+	+				very good, a little disease
silver-gray foliage			+			+	attractive compact accent plant
gray/green foliage			+			+	feathery foliage, nice accent plant
green around pink center leaves	23		+				developed color late
green around pink center leaves			+				late to color, some tipburn
green leaves/white & coral center			+				frilly leaves, late color development, excellent late season
rusty red	2¼		+		+		very good, unusual color
mix	3¼	+	+				excellent, wide color range
orange to scarlet/green around center	2½	+	+				very nice, striking flowers
mix	2¾	+	+				excellent, a little disease late
tangerine	3		+				excellent

Table 1 (continued)

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	RECOMMENDED SPACING(IN)
			JUN	JUL	AUG	SEP		
Gazania	Ministar White	AAS		*****	*****		8 1/2	8
Gazania	Red Stripe	PA	*	*****	*****		13	8
Geranium	Avanti Lilac Rose	Clause	**	*****	*****		9	12
Geranium	Avanti Red	Clause	**	*****	*****		8 1/2	12
Geranium	Freckles	Vaughan's	**	*****	*****		11 1/2	12
Geranium	Glamour Light Salmon	Ball	**	*****	*****		14	12
Geranium	Glamour Rose Pink	Ball	*	*****	*****		10	12
Geranium	Neon Rose	Ball		*****	*****		13	12
Geranium	Orange Appeal	Vaughan's	*	*****	*****		13	12
Geranium	Orbit Violet	Vaughan's		*****	*****		14	12
Godetia	Grace Mix	Johnny's		*****	*****		15	8
Godetia	Satin Deep Rose	Vaughan's		*****	*****		12	8
Godetia	Satin Mixture	Harris		*****	*****		9	8
Helichrysum	Bright Bikinis Mix	Vaughan's		*****	*****		24	9
Helichrysum	Chico Orange	PA		*****	*****		13	9
Helichrysum	Chico Pink	PA		*****	*****		12	9
Helichrysum	Chico Yellow	PA		*****	*****		12	9
Hollyhock	Zebrina	Stokes	**	*****	*****		38	10
Kochia	Autumn red/Firebush	Park		*****	*****		25	12
Lavatera	Dwarf White Cherub	T&M		*****	*****		15	10
Lavatera	Mont Blanc	Park		*****	*****		18	10
Lavatera	Mont Rose	Park		*****	*****		22	10
Lavatera	Rose Beauty	Cook's	**	*****	*****			10
Lavatera	Salmon Beauty	Cook's	**	*****	*****		24	10
Lavatera	Silver Cup	Stokes		*****	*****		23	10
Lobelia	Crystal Palace	Vaughan's	**	*****	*****		6 1/2	6
Lobelia	Fountain Lilac	Vaughan's	**	*****	*****		11	8
Lobelia	Paper Moon	Vaughan's	**	*****	*****		4	6
Lobelia	Regatta Lilac	Harris	**	*****	*****		9	7-8
Lobelia	Regatta Midnight	Stokes	*	*****	*****		6	7-8
Lobelia	Riviera Blue Splash	Vaughan's	**	*****	*****		6	6
Lupine	Gallery Blue/White	Stokes	**	*****	*****		32	12
Lupine	Gallery Mix	Ball	**	*****	*****		28	12
Lupine	Russell Mix	Vaughan's		*****	*****		36	12
Malope trifida	Pink Queen	Park		*****	*****		25	10
Marigold	Bonanza Flame Impr.	PA	*****	*****	*****		10	8
Marigold	Bonanza Yellow Impr.	PA	*****	*****	*****		9	8
Marigold	Doubleloon	Vaughan's	**	*****	*****		26	9
Marigold	French Vanilla	Burpee		*****	*****		15	9
Marigold	Inca Orange	Harris	*	*****	*****		14	8

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT		FRAGRANT	CUTTING	DRIED	COMMENTS
		flowers	foliage				
cream/yellow & brown center	2¾	+	+				beautiful blooms, some disease
gold/red stripe on each petal	3½	+	+				excellent until overpowered by weeds
bright rose	2¼*						very good, needs deadheading
coral red	3½*						very nice, needs deadheading
rose/red splotches	4*	-	+				very good, deadheading helpful
salmon	4*		+				very nice, needs deadheading
bright rose pink, lt. center	3½*		+				very good midseason
bright rose pink	4½*	+	+				very good, healthy plants, good color
deep red-orange	4*		+				excellent, striking color
bright rose	4¼*	-	+				very good
mix	2½				+		excellent mid-season, then rain damage & disease
rose edged in white	2¾						excellent mid-season, some disease
mix	2½						excellent mid-season, some disease
mix	1½	+	+		+	+	excellent, strong colors
orange/gold centers	1¼	+	+			+	lots of blooms, excellent, petite
bright rose pink	1½	+	+			+	very good, heights a little uneven, a little disease
yellow	1½	+	+			+	excellent
lt. purple/deep purple veins	1¾	+	+		+		excellent, will self-seed
lt. green fine-textured foliage			+				very nice foliage, tips turn red in Sep.
white	3						excellent, but some disease
white	2¾						excellent, but some disease
rose pink	3	+	+		+		excellent, might need staking
pink							complete die-off early, probably diseased
pink	4				+		excellent mid-season
rose pink	3		+		+		excellent mid-season, some disease
deep violet blue	¾	-	-				excellent
lilac blue	½						very nice until hit by disease
white(a few blue)	½						very good
lilac blue	½						very good, disease problems in Aug.
deep violet blue	¾	-	-				excellent
white/blue throat & edge	½						excellent, but got covered by weeds & taller plants later
violet blue/cream	10 x 2*	+	+		+		very good
mix	7 x 2½*	+	+		+		late, but nice
mix	11 x 2*		+		+		very nice color mix
pink/dark purple veins, green center	3				+		beautiful blooms, late season disease
maroon/orange edge	2¼	-	-				excellent
yellow	2						excellent until covered by weeds
yellow	4¼		-		+		very good
cream to pale yellow	3	-	-		+		lots of blooms, excellent mid-season, some disease
orange	4¼		-				excellent, some rain damage on blooms



Table . (continued)

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	RECOMMENDED SPACING(IN)
			JUN	JUL	AUG	SEP		
Marigold	Inca Yellow	Vaughan's		**	*****		11	8
Marigold	Janie Deep Orange	Stokes	* **	*****	*****		10	6
Marigold	Janie Gold	Harris	* **	*****	*****		8	6
Marigold	Jubilee Mix	Ball		**	*****		20	9
Marigold	Marvel Deep Orange	PA		**	*****		13	8
Marigold	Orange Boy	Vaughan's	* **	*****	*****		10	6
Marigold	Primrose Lady	Vaughan's		**	*****		12	8
Marigold	Safari Primrose	Harris	* **	*****	*****		6	8
Marigold	Safari Scarlet	Vaughan's	* **	*****	*****		14	8
Marigold	Safari Tangerine	Ball	* **	*****	*****		12	8
Marigold	Snowdrift	Burpee		**	*****		18	9
Marigold, signet	Lulu	Stokes	* **	*****	*****		11	10
Marigold, signet	Starfire Mix	Park		**	*****		14	10
Melampodium	Showstar	Vaughan's	* **	*****	*****		20	10
Monarch of the Veldt		T&M		**	*****		30	12
Monarda	Lambada	Johnny's		**	*****		36	10
Nasturtium	Alaska Mix	Ball		**	*****		14½	12
Nasturtium	Empress of India	Park	* **	*****	*****		21	12
Nasturtium	Tip Top Mix	Ball	* **	*****	*****		14	12
Nemesia	Carnival Blend	Stokes	* **	*****	*****		15	8
Nemesia	Tapestry	T&M	* **	*****	*****		15	10
Nicotiana	Domino Purple	Ball	* **	*****	*****		20	10
Nicotiana	Domino Salmon Pink	Ball	* **	*****	*****		19	10
Nicotiana	Havana Appleblossom	Ball	* **	*****	*****		15	10
Nicotiana	Nickie Pink	Burpee	* **	*****	*****		24½	10
Nicotiana	Nickie Rose	Burpee	* **	*****	*****		26	10
Nicotiana	Only the Lonely	Shepherd's		**	*****		58	12
Nicotiana	Prelude Rose Impr.	PA	* **	*****	*****		13	10
Nicotiana	Prelude Violet	PA	* **	*****	*****		18	10
Nicotiana	Starship Cherry Blossom	Ball	* **	*****	*****		16	10
Nierembergia	Mont Blanc	AAS	* **	*****	*****		3	6
Ornamental kale	Nagoya Red	Park		**	*****		11	18
Pansy	Chalon	Clause	* **	*****	*****		18	8
Pansy	Crown Mix	Vaughan's	* **	*****	*****		12	8
Pansy	Crown Yellow Splash	Ball	* **	*****	*****		7	8
Pansy	Jolly Joker	AAS	* **	*****	*****		8	8
Pansy	Maxim Marina	AAS		**	*****		10	8
Pansy	Padparadja	AAS		**	*****		14	8
Pansy	Purple Crown	Vaughan's	* **	*****	*****		8	8
Pansy	Purple Rain	PA	* **	*****	*****		15	8

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT flowers	FROST TOLERANT foliage	FRAGRANT	CUTTING	DRIED	COMMENTS
yellow	3¼	-	-				excellent mid-season, diseased later
orange	2½		-				excellent, a little disease
gold	1						very good, needs deadheading
mix-orange, gold, yellow	3-4½		-		+		excellent
orange	3½	-	-				excellent, a little rain damage on blooms
orange	2		-				excellent, a little disease
pale yellow	3						excellent, a little rain damage on blooms
yellow	2¼						very good
scarlet edged with gold	3	-	-				excellent
orange	2¾		-				excellent, a little disease
pale yellow	2½	-	-		+		attractive blooms, diseased later in season
yellow	¾						excellent, lemon scented foliage, a little disease
mix	1¼	-	-				excellent, a little disease
bright yellow	¾	-	-				excellent, star-shaped flowers on mounding plants
electric orange/brown center	4	+	+		+		very good, some disease, needs staking
lt. purple	9½ x 2*	+	+		+		excellent, very interesting flower form, attractive to bees
mix	2½	-	-				excellent, variegated foliage
deep orange	2¼	-	-				very good, dark foliage, some disease late
mix	2½	-	-				excellent
mix	1	+	+				excellent, vivid colors, disease later in season
mix	1						nice color mix with pastels & bicolors, but diseased early
purple/lt center	2		+				excellent
salmon pink	2		+				excellent
pale pink/dark reverse	2½		+				excellent
pale pink/dark reverse	2		+				excellent
deep rose	2	+					excellent
white	3		-	+			excellent, striking form
bright rose	2		+				excellent, a little disease
purple/paler center	2½		+				very good
pale pink/dark reverse	2		+				very nice, a little disease
white/yellow center	1						excellent mid-season
dusty green foliage/purple vein			+				excellent late season
mix-blue, purple, bronze	1¾	+	+				excellent, ruffled blooms
mix	2½	+	+				very good, no faces
white/yellow splash	2¾	+	+	+			excellent
purple/orange	2¼		+				very good
lilac/purple & white face	2½	+	+				excellent
orange	2¼	+	+	+			excellent
deep purple	2¾	+	+				excellent
deep purple/lavender face	2	+	+				excellent, uniform

Table 5 (continued)

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	RECOMMENDED SPACING(IN)
			JUN	JUL	AUG	SEP		
Pansy	Springtime Azure Blue	Harris	**	*	*	*	12	8
Pansy	Universal Plus True Blue	Vaughan's	**	*	*	*	14½	8
Pansy	Universal Plus Yellow	Ball	**	*	*	*	7	8
Pansy	Watercolors	Clause	**	*	*	*	10	8
Petunia	Carmine Madness	Ball	*	*	*	*	15	9
Petunia	Carpet Blue Lace	PA	**	*	*	*	13	9
Petunia	Carpet Sky Blue	PA	*	*	*	*	15	9
Petunia	Celebrity Chiffon Morn	AAS	**	*	*	*	12	9
Petunia	Double Madness Salmon	Ball	**	*	*	*	13	9
Petunia	Double Madness Silver Shades	Ball	*	*	*	*	18	9
Petunia	Dreams Appleblossom	PA	*	*	*	*	15	9
Petunia	Dreams White	PA	*	*	*	*	12	9
Petunia	Fantasy Pink Morn	AAS	*	*	*	*	7	8
Petunia	Heavenly Lavender	AAS	**	*	*	*	16	9
Petunia	Midnight Madness	Ball	*	*	*	*	11	9
Petunia	Pink Wave	PA	*	*	*	*	12	10
Petunia	Primetime Blues Mix	Ball	**	*	*	*	13	9
Petunia	Primetime Burgundy	Vaughan's	*	*	*	*	14	9
Petunia	Primetime Plum	Vaughan's	**	*	*	*	19	9
Petunia	Prism Sunshine	AAS	**	*	*	*	9½	9
Petunia	Purple Wave	AAS	*	*	*	*	5½	12
Petunia	Rose Madness	Ball	**	*	*	*	16	9
Petunia	Royal Madness	Ball	*	*	*	*	16	9
Petunia	Salmon Dreams	PA	*	*	*	*	12	9
Petunia	Spring Madness	Ball	*	*	*	*	10	9
Phlox	Coral Reef	Park	*	*	*	*	15	6
Phlox	Dwarf Varieties Finest Mix	Stokes	**	*	*	*	13	8
Phlox	Paloma Deep Rose	Vaughan's	**	*	*	*	10	7
Phlox	Phlox of Sheep	T&M	**	*	*	*	17	8
Phlox	Promise Pink	Ball	**	*	*	*	10	8
Rudbeckia	Becky Mix	Vaughan's	*	*	*	*	20	9
Rudbeckia	Goldilocks	Vaughan's	*	*	*	*	27	10
Rudbeckia	Indian Summer	AAS	**	*	*	*	27	10
Rudbeckia	Marmalade	Vaughan's	*	*	*	*	25	10
Rudbeckia	Nutmeg	T&M	**	*	*	*	36	10
Rudbeckia	Sputnik	T&M	*	*	*	*	26	10
Salpiglossis	Casino	Vaughan's	*	*	*	*	21	8
Salpiglossis	Casino Blackjack	Park	*	*	*	*	20	8
Salvia	Argent	Vaughan's	**	*	*	*	26	8
Salvia	Claryssa Pink	T&M	*	*	*	*	29	10

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT		FRAGRANT	CUTTING	DRIED	COMMENTS
		flowers	foliage				
deep lavender center, lighter edges	2½	+	+				excellent
violet blue	2	+	+				excellent
canary yellow	2½	+	+	+			excellent
mix-pastels	2½	+	+				excellent
red violet	3	+	+				excellent early, some disease later
lavender/dark blue veining	2¼						very attractive, but diseased and gone by August
lilac blue	2¾		+				very nice, large flowers, but lost about half to disease
pale pink/yellow throat	3¼	+	+				excellent, a little rain damage on blooms, some disease
salmon pink	3						very nice early in July, but then had disease problems
pale lavender/deep purple veining	3¼	+	+				very good, but had disease problems
lt. salmon pink	2¾		+				very nice, good rain tolerance, then got diseased
white	3¾	+	+				good rain tolerance, but not disease resistant
lt. pink/white throat	1½						very nice, petite variety, but diseased and gone by Aug
violet fading to blue	3		+				double blooms, excellent, a little disease, good late season performer
deep purple	3	+	+	+			very good, a little disease
rose pink	3	+	+				excellent, spreading habit, a little disease
mix-light & dark blue, white	2¾	+	+				very good, a little disease
red-purple/very dark veins	3		+				very good until hit by disease
deep orchid	2½	+	+				excellent, some disease later
pale yellow	3	+	+				good rain resistance, excellent until wiped out by disease
magenta	2¼	+	+				excellent, but sprawling habit allows weeds to grow through
rose	3	+	+				excellent, very little disease
royal purple	2¾	+	+				excellent, disease & weed problems later
salmon red	3						excellent, but succumbed to disease early
veined salmon pink	3		+				very nice, but had some disease
mix-pink, apricot, coral, cream	3*	+	+				excellent, nice color mix
mix	1¼	+	+				excellent, wonderful colors, good impact
raspberry	4*	+	+				excellent, smothered by weeds late
mix-pastels	3*	+	+				excellent
rose pink	3*	+	+				excellent, could use deadheading
mix- most gold/brown eye	4¼	+	+		+		very good
gold/brown eye	5¼	+	+		+		excellent, half are double blooms
gold/brown center	6	+	+		+		excellent
gold/brown center	5½		+		+		excellent
mix-mahogany, gold	5	+	+		+		excellent
gold/mahogany center markings	4½	+	+		+		excellent, striking markings
mix	2½	+	+		+		excellent, beautiful colorful blooms, but tend toward disease
deep purple, black	2¾	-	+		+		striking color, very good, but some disease
silvery white	4 x 2¼*	+	+		+	+	excellent, nice filler
pink	4½ x 2½*	+	+		+	+	excellent, nice backdrop

Table (continued)

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	RECOMMENDED SPACING(IN)
			JUN	JUL	AUG	SEP		
Salvia	Empire Lilac	Ball	* * * *	* * * *	* * * *	* * * *	13	8
Salvia	Lady in Red	AAS		* * * *	* * * *	* * * *	11	8
Salvia	Maestro	Clause	* * * *	* * * *	* * * *	* * * *	10½	7
Salvia	Oxford Blue	Ball	* * * *	* * * *	* * * *	* * * *	25	10
Salvia	Pink Sundae	Johnny's	* * * *	* * * *	* * * *	* * * *	22	10
Salvia	Primco	Clause	* * * *	* * * *	* * * *	* * * *	7	7
Salvia	Red Vista	PA	* * * *	* * * *	* * * *	* * * *	15	7
Salvia	Rhea	Clause	* * * *	* * * *	* * * *	* * * *	21	8
Salvia	Strata	AAS	* * * *	* * * *	* * * *	* * * *	20	10
Salvia	Victoria	Clause	* * * *	* * * *	* * * *	* * * *	25	8
Schizanthus	Dwarf Bouquet Mixed	T&M	* * * *	* * * *	* * * *	* * * *	20	7
Schizanthus	Hit Parade	Ball	* * * *	* * * *	* * * *	* * * *	19	7
Shasta daisy	Alaska	Vaughan's		* * * *	* * * *	* * * *	36	10
Shasta daisy	Snow Lady	Ball	* * * *	* * * *	* * * *	* * * *	13	6
Shasta daisy	White Knight	Burpee	* * * *	* * * *	* * * *	* * * *	17	9
Shoo-Fly plant	Black Pod	Big Dipper	* * * *	* * * *	* * * *	* * * *	57	12
Snapdragon	Floral Carpet Yellow	Vaughan's	* * * *	* * * *	* * * *	* * * *	6½	8
Snapdragon	Liberty Lavender	Ball	* * * *	* * * *	* * * *	* * * *	26	10
Snapdragon	Liberty Mix	Cook's	* * * *	* * * *	* * * *	* * * *	22	10
Snapdragon	Madame Butterfly Mixed	Stokes	* * * *	* * * *	* * * *	* * * *	29	9
Snapdragon	Rocket Gold	Vaughan's	* * * *	* * * *	* * * *	* * * *	38	10
Snapdragon	Rocket Light Pink	Harris	* * * *	* * * *	* * * *	* * * *	27	10
Snapdragon	Rocket Orchid	Stokes	* * * *	* * * *	* * * *	* * * *	40	10
Snapdragon	Rocket Red/Red Stem	Harris	* * * *	* * * *	* * * *	* * * *	39	10
Snapdragon	Sonnet Bronze	Ball	* * * *	* * * *	* * * *	* * * *	15	8
Snapdragon	Sonnet Mix	Harris	* * * *	* * * *	* * * *	* * * *	17	8
Snapdragon	Tahiti Appleblossom	Stokes	* * * *	* * * *	* * * *	* * * *	6	8
Snapdragon	Tahiti Lilac	Harris	* * * *	* * * *	* * * *	* * * *	8½	8
Snapdragon	Tahiti Mix	Vaughan's	* * * *	* * * *	* * * *	* * * *	6	8
Snapdragon	Tahiti Orange	Harris	* * * *	* * * *	* * * *	* * * *	7	8
Statice	Excellent Mix	Ball	* * * *	* * * *	* * * *	* * * *	36	10
Stocks	Avalanche	Ball	* * * *	* * * *	* * * *	* * * *	21	9
Stocks	Giant Excelsior Mix	Johnny's	* * * *	* * * *	* * * *	* * * *	33	9
Stocks	Legacy Mixed	T&M		* * * *	* * * *	* * * *	16	8
Stocks	Legacy Rose	Vaughan's		* * * *	* * * *	* * * *	18	8
Sunflower	Big Smile	Ball	* * * *	* * * *	* * * *	* * * *	24	12
Sunflower	Chianti	Burpee	* * * *	* * * *	* * * *	* * * *	61	12
Sunflower	Del Sol	PA	* * * *	* * * *	* * * *	* * * *	60	12
Sunflower	Floristan	Park	* * * *	* * * *	* * * *	* * * *	48	12
Sunflower	Giant Sungold	Park		* * * *	* * * *	* * * *	80	12

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT		FRAGRANT	CUTTING	DRIED	COMMENTS
		flowers	foliage				
purple	8 x 2½*	-	-				very good
red	13 x 2*	-	-		+		excellent, more foliage than typical salvia, a little disease
red	5 x 1½*						excellent mid-season performer
deep violet	2¾ x 1¼*	+	+		+	+	excellent
rose pink	9 x 2*	+	+		+	+	very good, delicate effect
red	3 x 2*	-	-				very good early season performance, some disease
red	7 x 2½*	-	-				excellent, attractive foliage, a little disease
deep violet blue	5 x 1¼*	+	+		+	+	excellent
blue/white	6 x 1*	+	+		+	+	excellent
deep violet blue	9 x 1¼*	+	+		+	+	excellent
mix-pastels	1				+		very good
mix	1				+		good, but hit early by disease
white	5	+	+		+		late, but excellent
white	3½	+	+				very good, a few plants lacking in foliage
white	4½	+	+		+		excellent, lots of blooms
lavender blue	1½	-	-				very good, interesting seed pods, self seeds
yellow	2¾x1¼*		+				very good
purple	10 x 2*	+	+		+		excellent
mix	9 x 3*	+	+		+		excellent
mix	10½ x 3*	+	+		+		very good, double azalea flowered blooms
yellow	10½ x 3*	+	+		+		excellent
pink	7 x 3½*	+	+		+		very good
orchid	10 x 3*	+	+		+		very good
maroon	10½x3½*	+	+		+		very good, some disease
coral/deep orange	6 x 2½*	+	+		+		excellent
mix	6 x 2*	+	+		+		excellent, big color impact
light pink	2¾ x 2*	+	+				excellent, long bloom period
deep red violet	3¾ x 1½*	+	+				very good
mix	2 x 1½*	+	+				excellent, good color mix, covers well
red orange/yellow	2½ x 2*	+	+				excellent early in season, partial 2nd bloom
mix-yellow, rose, lavender	2-3*	+	+		+	+	very good
white	9½x3*			+	+		needs staking
mix	32 x 3*			+	+		
mix-white, purple, rose	3 x 2*	+	+				excellent late season performance, attractive grayed foliage
lavender pink	7½ x 3*	+	+				excellent late season performance, mostly double blooms
yellow	6½						makes you smile!
deep wine red	5				+		excellent, striking color
gold/brown centers	7				+		very good
dark red, yellow edges/brown center	5				+		nice, unusual color
bright yellow	8				+		very good, double blooms, showy

Table (continued)

COMMON NAME	CULTIVAR	SOURCE	WEEKLY BLOOM PERIOD				HEIGHT (IN)	RECOMMENDED SPACING(IN)
			JUN	JUL	AUG	SEP		
Sunflower	Italian White	Park		***	***	***	65	10
Sunflower	Kid Stuff	Burpee		***	***	***	34	10
Sunflower	Lemon Queen	Johany's		***	***	***	66	12
Sunflower	Tangina	Burpee		***	***	***	48	12
Sunflower	Teddy Bear	Harris		***	***	***	30	10
Verbena	Blue Lagoon	Clause		***	***	***	12	8
Verbena	Imagination	AAS		***	***	***	14	8
Verbena	Novalis Deep Blue/White Eye	AAS		***	***	***	7	8
Verbena	Peaches & Cream	AAS		***	***	***	13	8
Verbena	Quartz Formula Mix	PA	*	***	***	***	9	8
Verbena	Showtime Blaze	Harris Moran	***	***	***	***	12	8
Verbena	Trinidad	AAS		***	***	***	9	8
Verbena, moss	Sterling Star	Park	***	***	***	***	16	8
Viola	Princess Blue	Ball	***	***	***	***	8	8
Viola	Yesterday, Today & Tomorrow	Harris	***	***	***	***	9	8
Zinnia	Blue Point	Shepherd's		***	***	***	29	10
Zinnia	Border Beauty Rose Shades	Burpee	*	***	***	***	14	10
Zinnia	Border Beauty Scarlet	Burpee	*	***	***	***	20	10
Zinnia	Burpeeana Giant Mix	Stokes	*	***	***	***	36	10
Zinnia	Crystal White	AAS		***	***	***	6	8
Zinnia	Pinwheel Mix	Park	***	***	***	***	14	8
Zinnia	Scarlet Splendor	Burpee	*	***	***	***	29	10
Zinnia	Short Stuff Deep Red	Ball	*	***	***	***	8	8
Zinnia	Small World Cherry	Vaughan's	*	***	***	***	18	10
Zinnia	Small World Pink	Vaughan's	*	***	***	***	18	10
Zinnia	Splendor Orange	Burpee	*	***	***	***	31	10
Zinnia	Star Gold	PA		***	***	***	14	8
Zinnia	Star White	PA		***	***	***	11	8
Zinnia	Yellow Marvel	AAS	***	***	***	***	12	8

BLOOM COLOR	BLOOM SIZE (IN)	FROST TOLERANT		FRAGRANT	CUTTING	DRIED	COMMENTS
		flowers	foliage				
lemon to cream/chocolate centers	3		+		+		very attractive
yellow	5				+		nice mid-height
lemon yellow/brown center	6				+		excellent
lt. orange/brown center	4½				+		very good
gold	4¾				+		double blooms, very good until hit by disease
violet blue	2¼*	+	+				very good, might need deadheading
purple	1*	+	+				excellent, but feathery foliage allows weeds to grow through
deep blue	2*	+	+				very good
salmon pink,apricot	2*	+	+				excellent, unique color
mix	2½*	+	+				excellent early performance, should deadhead for 2nd bloom
bright red	2*	+	+				excellent, beautiful red
rose pink	2½*	+	+				excellent, seed probably not available
lilac	1¼*	+	+				very good, but feathery foliage allows weeds to grow through
violet	1¼	+	+				excellent
white, turning lavender, blue	1¼	+	+				excellent
mix	3¼	-	-		+		excellent, dahlia flowered, good mix
coral	3	-	-		+		excellent
scarlet	3¾	-	-		+		excellent, disease problems later in season
mix	4¾	-	-		+		excellent, cactus flowered
white/ gold center	1¼	-	-				very good, compact mounding plants
mix	3	-	-				excellent
scarlet	5	-	-		+		excellent, a little disease late
red	2¼	-	-				excellent mid-season, disease problems later
cherry red	2¼	-	-		+		very good, a little disease
bright pink	2¼	-	-		+		very good
orange	4¼	-	-		+		excellent, a little disease late
yellow, gold edges	1		+				excellent, attractive foliage, mounding
white with yellow center	1½						excellent, mounding
yellow	3¼	-	-				excellent, seed no longer available

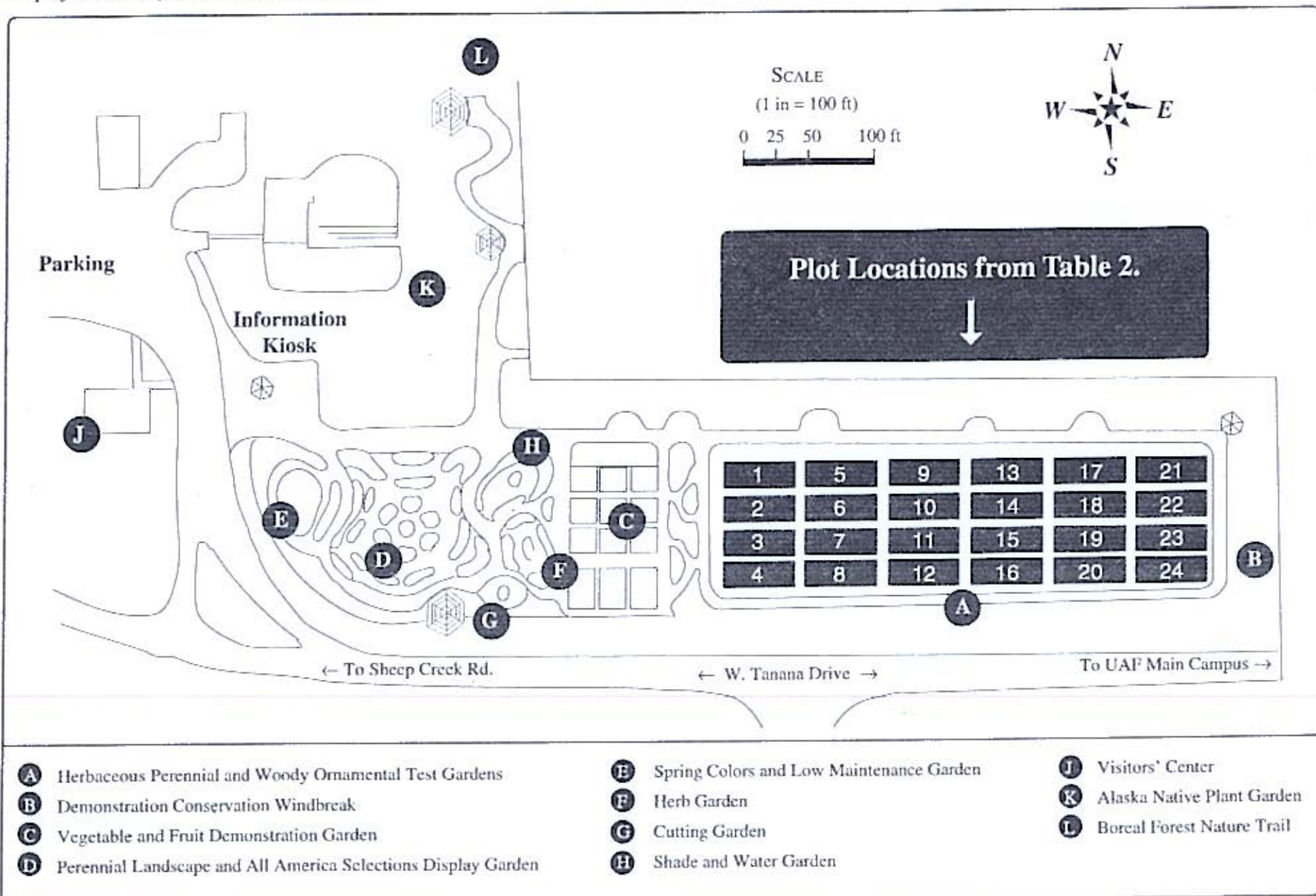


Appendix 1. *Commercial sources and organizations.*

AAS .....	All-America Selections	Johnny's .....	Johnny's Selected Seeds, Foss Hill Road, Albion, ME 04910
AHS .....	The American Horticultural Society, P.O. Box 6118, Alexandria, VA 22308	Lamb .....	Lamb Nurseries, 101 E. Sharp Ave., Spokane, WA 99202
AK Greenhouse ....	Alaska Greenhouse, 1301 Muldoon Rd., Anchorage, AK 99504	Lawyer .....	Lawyer Nursery, 950 Highway 200 West, Plains, MT 59859
Alplains .....	Alplains, P.O. Box 489, Kiowa, CO 80117-0489	M&Z .....	McChure & Zimmerman, P.O. Box 368, Friesland, WI 53935-0368
ANPS* .....	Alaska Native Plant Society, P.O. Box 141613, Anchorage, AK 99514	Nauriaq .....	see Wild Rose
Applewood .....	Applewood Seed Co., 5380 Vivian St., Arvada, CO 80002	NCGR .....	National Clonal Germplasm Repository, 33447 Peneas Rd., Corvallis, OR 97333
Arboretum Norr ...	Arboretum Norr, Box 4097, S-90403, Umeå, Sweden	NCRPIS .....	N. Central Regional Plant Intro. Sta., Ames, IA
ARGS* .....	American Rock Garden Society, P.O. Box 67, Millwood, NY 10546	NCSU .....	N. Carolina State Univ. Arboretum, Raleigh, NC
Aspen Acres .....	Aspen Acres Farm & Greenhouses(Tack's), P.O. Box 16004, Two Rivers, AK 99716	NEWFS* .....	New England Wildflower Society, Hemenway Road, Framingham, MA 01701
Ball .....	Ball Seed Company, P.O. Box 335, West Chicago, IL 60185-60185	Northern Lights ...	see Holm Town Nursery
Barnaul .....	The Lisavenko Research Institute of Horticulture, Barnaul, Altai Region, Russia	Nourse .....	Nourse Farms Inc., Box 485 R.F.D., South Deerfield, MA 01373
BCN .....	Bear Creek Nursery, P.O. Box 411, Northport, WA 99157	PA .....	PanAmerican Seed Co., P.O. Box 438, West Chicago, IL 60186
Beaverlodge .....	Beaverlodge Nursery, LTD, Box 127, Beaverlodge, AB T0H 0C0 Canada	Park .....	Park Seed Co., Cokesbury Road, Greenwood, SC 29647
Big Dipper .....	Big Dipper Gardens, P.O. Box 82234, Fairbanks, AK 99708	PMC .....	Plant Materials Center, Palmer, AK
Bluebird .....	Bluebird Nursery, Inc., P.O. Box 460, Clarkson, NE 68629	P&M .....	P&M Garden Services, PO Box 770349, Eagle River, AK, 99577
BTI .....	Better Trees, Inc, 7894 W Maple Rapids Road, St Johns, MI 48879	Richters .....	Richters, Goodwood, Ontario, L0C 1A0 Canada
Burpee .....	W. Atlee Burpee & Co., 300 Park Ave., Warminster, PA 18991-0001	The Roseraie .....	The Roseraie at Bayfields, Box R, Waldoboro, ME 04572-0919
Chamal .....	Mountain Experiment Station, Gorno-Altaiisk Region, Russia	SAAS .....	Dendrological Garden-Siberian Academy of Agricultural Sciences, Novosibirsk Region, Russia
Clair's .....	Clair's Cultivars, 1364 Esro Road, Fairbanks, AK 99712	SBG .....	Siberian Botanical Garden, Novosibirsk, Russia
Clause .....	Clause Seed Co., North American Office 100 Breen Rd., San Juan Bautista, CA 95045	Schumacher .....	F.W. Schumacher Co. Inc., 36 Spring Hill Rd., Sandwich, MA 02563-1023
Cook's .....	Cook's Garden P.O. Box 535 Londonderry, VT 05148	Seeds of AK .....	Seeds of Alaska, Box 3127, Kenai, AK 99611
Country Store .....	The Country Store & Gardens, Vashon Is., WA 98070	Seiberling .....	Seiberling Naturealm, Akron, OH
CSBG .....	Central Siberian Botanical Garden, Novosibirsk, Russia	Shepherd's .....	Shepherd's Garden Seeds, 30 Irene St., Torrington, CT 06790
Dachnfeldt .....	Dachnfeldt, Box 947, Albany, OR 97321	Smith .....	Smith Nursery Co., Box 515, Charles City, IA
DBG .....	Denver Botanic Gardens, 909 York St., Denver, CO 80206	South Slope .....	South Slope Greenhouses, Fairbanks, AK
DeGiorgi .....	DeGiorgi Seed Co., 6011 N Street, Omaha, NE 68117-1621	Stokes .....	Stokes Seeds Inc., P.O. Box 548, Buffalo, NY 14240
deJager .....	Peter de Jager Bulb Co, P.O. Box 2010, So. Hamilton, MA 01982	T&M .....	Thompson & Morgan Inc., P.O. Box 1309, Jackson, NJ 08527
Gardens North ....	Gardens North, 5984 Third Line Rd., North Grower, ON K0A 2T0 Canada	Vaughan's .....	Vaughan's Seed Co., 5300 Katrine Ave., Downers Grove, IL 60515
GBG .....	Georgeson Botanical Garden, UAF, P.O. Box 757200, Fairbanks, AK 99775-7200	Van Bloem .....	Van Bloem U.S.A. Inc., 500 Pendley Industrial Park, Cumming, GA 30130
Harris .....	Harris Seeds, P.O. Box 22960, Rochester, NY 14692-2960	VB&S .....	K. Van Bourgondien & Sons Inc., 245 Farmingdale Rd., Babylon, NY 11702
HFF .....	Hardy Fern Foundation, P.O. Box 60034, Richmond Beach, WA 98160	Vermont Bean .....	Vermont Bean Seed Co., Garden Lane, Fair Haven, VT 05743
Holm Town .....	Holm Town Nursery, 1301 30th Ave., Fairbanks, AK 99701	Washburn .....	Washburn Farm Nursery, P.O. Box 823, Palmer, AK 99645
Hudson .....	J.L. Hudson, P.O. Box 1058H, Redwood City, CA 94084	Waushara .....	Waushara Gardens, N 5491 5th Drive, Plainfield, WI 54966
J&P .....	Jackson & Perkins, P.O. Box 1028, Medford, OR 97501	Wayside .....	Wayside Gardens, 1 Garden Lane, Hodges, SC 29695
KHN .....	Knight Hollow Nursery Inc., 236 E. Sunset Ct., Madison, WI 53705	White Flower .....	White Flower Farm, Route 63, Litchfield, CT 06759-0050
		Wild Rose .....	Wild Rose Gardens, P.O. Box 82281, Fairbanks, AK 99708
		WNS .....	Wildwood Northern Seeds, Whitehorse, YT Canada

\* seeds available to members

Map of the Georgeson Botanical Garden.





University of Alaska Fairbanks

Agricultural and Forestry Experiment Station

School of Agriculture and Land Resources Management

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