Each year the Chicago Botanic Garden’s research program evaluates a variety of new or unusual summer flowering annuals. The program’s purpose is to diversify the palette of summer flowering annuals used in horticultural displays throughout the Garden, and to increase public awareness and interest in new or uncommon plants. Annuals are planted in blocks for easy comparison among similar plants and for observing complimentary traits such as flower color, foliage or habit.

On June 1, evaluations began on 55 summer flowering annuals in the Herbaceous Test Garden (Table 1). The 1994 inventory included All-America Selections® winners, Dianthus cultivars and various requests from Chicago Botanic Garden horticulture and research staff. The All-America Selections (AAS) were planted in a separate bed, and featured the winners for 1995 and the previous four years. Of the 16 All-America Selections winners, 13 were repeat entries in the trial program.

Project Specifics

The Herbaceous Test Garden provided a uniform site for the testing of summer flowering annuals. All trial plots, of 30 plants each, received similar exposure to wind and approximately 8-10 hours of full sun per day. Planting beds were excavated to a depth of 12 inches and raised 6 inches above ground level for drainage. The soil mix was one part composted leaves to four parts soil. Trial plots were bounded on two sides by turf grass paths.

During the evaluation period (June 1 to September 15) one fertilizer application was made. All summer annuals received a foliar and soil drench of 20-20-20 liquid fertilizer at a rate of 200 ppm (1 cup per 5 gallons of water) on June 15. Because of the below normal rainfall from July to September (Table 2), the grounds were kept moist with regular irrigation, approximately 1 inch per week. None of the plants were deadheaded unless noted in the individual reports.

Evaluation Reports

The individual evaluation reports contain information on flowers, peak bloom, plant size, disease and/or pest damage, and other pertinent observations. A summary rating for each taxon also accompanies the reports. Ratings refer to the 1994 performance only, and do not include results from previous years.

Specific explanations of the evaluation criteria are:

- **Flowers:**
  - Size of individual blossom or inflorescence
  - Most prominent color in blossom or inflorescence

- **Plant size:**
  - Average size of individual plants within the plot
  - Suggested spacing for optimal performance and display

- **Peak bloom:**
  - Period of the greatest flower coverage, followed by length of time coverage remains close to or at peak level

- **Disease/pests:**
  - Problems related to fungi, insects, viruses and rabbits
  - Cultural problems are not mentioned here

Rating:

- **** Excellent
- *** Good
- ** Fair
- * Poor

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*All-America Selections is a non-profit organization that introduces new flowering plants and vegetables.
Agastache anisata: Lavender flowers open in early July and continued to late August. This was an excellent performer with a clean, uniform habit. Some minor discoloration of leaves was observed but no serious damage. Stems remained upright throughout the season. Although bloom coverage declined in late August, the quality of flowers remaining was excellent.

Flowers: 2-4 in., lavender
Plant size: 30 in. x 12 in.; 15 in. spacing
Peak bloom: Mid-July, 4-5 weeks
Disease/pests: None observed
Rating: 4

Argemone mexicana ‘Yellow Lustre’: The habit was somewhat irregular with an airy appearance. In mid-July many of the plants suffered from sun scald which significantly reduced the quality of the display. Plants reseded throughout the summer, and by mid-September the test plot was a dense carpet of seedlings, many of which were already flowering. Potentially weedy because of the high quantity of seedlings produced. At peak bloom, flower coverage was only 20% to 30%. Plants began to deteriorate in mid-August, and at that time flowers were scarce. However, the limited number of flowers remaining were of good quality.

Flowers: 2 in., lemon yellow
Plant size: 18 in. x 16 in.; 18 in. spacing
Peak bloom: Early July, 1 week
Disease/pests: None observed
Rating: 3

Bupleurum griffithii: The greenish-yellow flowers deteriorated shortly after peak bloom. Flowers were scarce by the end of July, and many stems were weak and falling over. Plants declined rapidly in mid-July and were removed in early August due to poor health. Not much different than Bupleurum rotundifolia ‘Green Gold’.

Flowers: 1-1/2 in., green-yellow
Plant size: 20 in. x 18 in.; 12 in. spacing
Peak bloom: Early July, 2 weeks
Disease/pests: None observed
Rating: 2

Bupleurum rotundifolia ‘Green Gold’: Flowers declined rapidly after peak bloom. By early July, plants required deadheading. Foliage turned a yellowish-pink as the summer progressed. Many plants had weak stems and fell over. Overall, both Bupleurum performed poorly and are not recommended.

Flowers: 1-3 in., green-yellow
Plant size: 20 in. x 18 in.; 12 in. spacing
Peak bloom: Early July, 2 weeks
Disease/pests: None observed
Rating: 2

Callistephus chinensis ‘All Change Blue & White’: Minor leaf damage early in the season. Flower coverage was not significant until late July, and by this time, many blossoms were affected by Aster yellows. This problem continued into August and by the end of the month flowering was completed. Plants were removed on August 29, due to poor health.

Flowers: 2 in., purple with yellow center
Plant size: 24 in. x 11 in.; 12 in. spacing
Peak bloom: Late July to early August, 2 weeks
Disease/pests: Aster yellows in late July; minor chewing insect damage
Rating: 2

Callistephus chinensis ‘All Change Red & White’: Peak flowering did not occur until early August and even then, bloom coverage was less than 60%. Aster yellows significantly detracted from the floral display. The general habit was weak with stems falling over. Plants were removed on August 29, due to poor health.

Flowers: 2 in., purple with yellow center
Plant size: 24 in. x 12 in.; 12 in. spacing
Peak bloom: Early August, 2 weeks
Disease/pests: Aster yellows in July; minor chewing insect damage
Rating: 2
**Campanula medium 'Russian Pink':**  
Attractive pink flowers were the highlight of this cultivar. Peak bloom lasted only one week and much deadheading was necessary to maintain a clean display. Flower coverage of about 30% lasted for 45 days. Plants had spindly, leggy habits, and many appeared to have prostrate habits. The plants declined significantly over the summer. Not recommended.  
- **Flowers:** 1-2 in., light to dark pink  
- **Plant size:** 6-12 in. x 9-12 in.; 10 in. spacing  
- **Peak bloom:** Late June, one week  
- **Disease/pests:** None observed  
- **Rating:** ⬤

**Catharanthus roseus 'Pretty in Rose':** (AAS 1991) With age, the medium to dark pink blossoms were streaked with white. Flower coverage was not heavy, about 50% at any one time, but the flower quality was excellent. Foliage was light green and glossy, similar to *C. roseus 'Parasol'.* Plants maintained a healthy, uniform habit throughout the season. Both vinca cultivars are highly recommended.  
- **Flowers:** 1 ½ in., medium to dark pink  
- **Plant size:** 12 in. x 6-7 in.; 9 in. spacing  
- **Peak bloom:** Early July; remained entire season  
- **Disease/pests:** None observed  
- **Rating:** ★★★★★

**Canna × generalis 'Tropical Rose':** (AAS 1992) Large, medium green leaves, up to 15 inches long, gave this plant a bold appearance, and the plants maintained a healthy robust habit. Flowers peaked around mid-July and again in mid-August. Unfortunately, the deteriorating blossoms detracted from the overall display. Plants continually required deadheading.  
- **Flowers:** 3-4 in., pink-salmon  
- **Plant size:** 30 in. x 10-14 in.; 15 in. spacing  
- **Peak bloom:** Mid-July; 1-2 weeks; again in mid-August, 1-2 weeks  
- **Disease/pests:** None observed  
- **Rating:** ★★★

**Catharanthus roseus 'Parasol':** (AAS 1991) Plants maintained a tight, clean, uniform habit throughout the season. Excellent form, habit and health were observed even into late September. Flower coverage remained constant at 40% to 60%.  
- **Flowers:** 1 ½ in., white with red eye  
- **Plant size:** 12 in. x 12 in.; 12 in. spacing  
- **Peak bloom:** Early July; constant entire season  
- **Disease/pests:** None observed  
- **Rating:** ★★★★★

**Corydalis sempervirens:** A relative of *Dicentra,* the foliage has a similar cut-leaf appearance. Despite the attractive blue-green color, the leaves were too small and sparse. Flower production was limited to 5% coverage at any time and the visual effect of the small blooms was insignificant. Flower production increased slightly in mid-July and the overall plant health seemed to improve. By the end of July, the flowers declined and the plants once again acquired an exhausted look. Seedlings blanketed the plot by the end of the season.  
- **Flowers:** ½ in., yellow and pink  
- **Plant size:** 15-18 in. x 12-15 in.; 13 in. spacing  
- **Peak bloom:** —  
- **Disease/pests:** None observed  
- **Rating:** ⬤

**Cuphea hyssopifolia 'Desert Jewel':**  
Production of the small lavender flowers was limited throughout the early season with only 5% coverage in July. Production gradually increased, and by mid-August, coverage was between 60% and 70%. The dark, glossy, green foliage was attractive despite a minor bronze discoloration in late July. The habit was more upright than *Cuphea hyssopifolia 'Desert Snow'.* Flowers attracted many bees in late August.  
- **Flowers:** ¾-¾ in., dark lavender  
- **Plant size:** 5-7 in. x 6-7 in.; 6-8 in. spacing  
- **Peak bloom:** Mid-August to mid September  
- **Disease/pests:** None observed  
- **Rating:** ★★★
Cuphea hyssopifolia ‘Desert Snow’: The mounded habit was compact and uniform. The vivid, white flowers were more prominent than the flowers of ‘Desert Jewel’. By mid-August, a few flowers were acquiring pink tinges, and were also attracting bees. Flower coverage reached nearly 80% in late August. Overall performance was superb.

Flowers: ¾-⅞ in., white
Plant size: 4-5 in. x 8-12 in.; 10 in. spacing
Peak bloom: Mid-August to mid-September
Disease/pests: None observed
Rating: ★★★★★

Dianthus ‘Floral Lace Purple’: The maroon flowers had occasional flecks of light pink to purple. Deadheading was necessary throughout July but many flowers remained well into September. The habit maintained a uniform appearance while the general health was exceptional.

Flowers: 1-1½ in., maroon
Plant size: 6-8 in. x 9 in.; 8-10 in. spacing
Peak bloom: Late July through late August
Disease/pests: None observed
Rating: ★★★★★

Dianthus ‘Floral Lace Violet Picotee’: This cultivar required more deadheading than others in the Floral Lace series. The spent blossoms were especially unsightly during early July. Bloom coverage remained at nearly 80% throughout August. Flowers were a vivid pink with approximately 20% of the flower surface edged with white. Plants remained uniform in height and the overall display was commendable.

Flowers: 1-1½ in., hot pink
Plant size: 7 in. x 9 in.; 10 in. spacing
Peak bloom: Throughout August
Disease/pests: None observed
Rating: ★★★★

Dianthus ‘Floral Lace Carmine’: The attention-getting deep red flowers were edged with pink streaks. Spent blooms detracted from the display but deadheading was only necessary during July. A few blossoms were hidden by the fallen, spent blooms during this time. Plants maintained uniform habits with only minor yellowing of the basal foliage.

Flowers: 1-1½ in., red with pink margins
Plant size: 6-8 in. x 9 in.; 8-10 in. spacing
Peak bloom: Late July, 4 weeks
Disease/pests: None observed
Rating: ★★★★

Dianthus chinensis ‘Ideal Pink’: Limited deadheading was necessary but only in July. Plants maintained a clean, robust appearance but varied in height. Foliage was dark green and healthy.

Flowers: 1-1½ in., deep pink
Plant size: 8-12 in. x 10-12 in.; 10 in. spacing
Peak bloom: Early July, 2 weeks; again in late August, 2 weeks
Disease/pests: None observed
Rating: ★★★
*Dianthus chinensis ‘Ideal Rose’*: Plants maintained full, robust habits during the season. Bloom coverage fell to 20% in early August but gradually increased to 40% by the end of the month. The vivid magenta flowers were attractive against the dark green foliage. Deadheading was not required.

- **Flowers**: 1 in., hot pink magenta
- **Plant size**: 8-12 in. x 10 in.; 9-11 in. spacing
- **Peak bloom**: Early July, 4 weeks
- **Disease/pests**: None observed
- **Rating**: ★★★★

*Dianthus chinensis ‘Telstar Pink’*: Flower color was a mix of dark and light shades of pink. Bloom coverage was excellent throughout July and early August, and only limited deadheading was necessary. Plants remained healthy with a robust profile the entire season. ‘Telstar Pink’ is highly recommended.

- **Flowers**: 1-1½ in., light to dark pink
- **Plant size**: 7-8 in. x 10 in.; 9-11 in. spacing
- **Peak bloom**: Early July, 4-5 weeks
- **Disease/pests**: None observed
- **Rating**: ★★★★★

*Dianthus chinensis ‘Ideal Violet’*: (AAS 1992) Flower coverage was consistently between 60% and 80%. The floral display was somewhat irregular with some plants producing only a few flowers. Deadheading was necessary as the spent blooms detracted from the display. The habit remained tight and uniform throughout the season.

- **Flowers**: 1½ in., deep violet
- **Plant size**: 6-9 in. x 8-10 in.; 8 in. spacing
- **Peak bloom**: Early July, remained entire season
- **Disease/pests**: None observed
- **Rating**: ★★★★

*Gaillardia pulchella ‘Red Plume’*: (AAS 1991) In early July, flowers were healthy and abundant. Plants were severely affected by Aster yellows in mid-July, and by early September nearly 25% of the plants were dead. Deadheads in general detracted from the display. Since Gaillardia are drought tolerant and prefer dry soils, supplemental irrigation may have contributed to the poor performance.

- **Flowers**: 2 in., deep red
- **Plant size**: 18-20 in. x 14 in.; 18 in. spacing
- **Peak bloom**: Early July, 2-3 weeks
- **Disease/pests**: Aster yellows, 25% of plot
- **Rating**: ★
Seven cultivars of *Godetia* were observed in 1994. Evaluations concluded in mid-July due to the exceedingly poor health of all plants. Severe foliar problems occurred with each cultivar and the habit was quite irregular. Flower production was low, however, ‘Satin Salmon’ and ‘Satin Deep Rose’ exhibited an adequate display at 60% coverage. None of the *Godetia* cultivars are recommended as summer annuals for general bedding use.

**Godetia ‘Apple Blossom’**: A few flowers were present in mid-June but no flowers by mid-July. Foliage was scorched, and the habit was irregular and unattractive.

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**Godetia bottae ‘Amethyst Glow’**: The foliage acquired a reddish tint in early July. Plants tended to be more robust than the other cultivars. Observations for this cultivar continued until early August when plants were removed due to poor health.

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**Godetia ‘Satin Deep Rose’**: The floral display was above average compared to other cultivars. Bloom coverage was at 60% throughout July but deteriorated rapidly at the end of the month. In mid-July foliage was severely sun scorched and then all plants were removed.

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<td>Flowers</td>
<td>1½ in., hot pink with white margins</td>
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<td>Plant size</td>
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<td>Peak bloom</td>
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<td>Disease/pests</td>
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**Godetia ‘Satin Lavender’**: This cultivar also suffered from sun scorched but not as severely as ‘Satin Deep Rose’. As with all *Godetia* cultivars, plants required deadheading. Plant habit was irregular and unattractive.

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<td>Flowers</td>
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<td>Plant size</td>
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<td>Peak bloom</td>
<td>Mid-July, 1 week</td>
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<td>Disease/pests</td>
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**Godetia 'Satin Lilac Rose':** The floral characteristics were similar to 'Satin Deep Rose'. The habit was respectable throughout June and into early July. However, by late July, both habit and health were very poor.

- **Flowers:** 1½ in., hot pink with lavender margins
- **Plant size:** 10 in. x 10 in.
- **Peak bloom:** Early July, 1 week
- **Disease/pests:** None observed
- **Rating:** ☀️

**Godetia 'Satin Salmon':** The bloom coverage reached nearly 80% in early July but deteriorated rapidly during the third week of the month. Foliar discoloration was noted in mid-July and the withering of the entire plot added to an unsightly display.

- **Flowers:** 1-1½ in., light pink
- **Plant size:** 10 in. x 9 in.
- **Peak bloom:** Early July, 2 weeks
- **Disease/pests:** None observed
- **Rating:** ☀️

**Godetia 'Satin White':** The white flowers were impressive during a brief period in early July, but as with all Godetia cultivars, the blooms declined rapidly. The basal foliage of all plants began to deteriorate in early July.

- **Flowers:** 1-1½ in., white
- **Plant size:** 10 in. x 8 in.
- **Peak bloom:** Early July, 1 week
- **Disease/pests:** None observed
- **Rating:** ☀️

**Lavandula angustifolia 'Lady':** (AAS 1994)

The overall performance was superb. Floral coverage was never above 60% but was relatively constant at that level once first flowers appeared in late July. Flowering on individual plants was sporadic as some plants were more floriferous than others. Plants were healthy and robust throughout the season, and the entire plot kept a uniform habit. Flowers and buds persisted well into September.

- **Flowers:** 1 in., lavender
- **Plant size:** 8-10 in. x 8 in., 14 in. flower stalks; 10-12 in. spacing
- **Peak bloom:** Late July, 2-3 weeks
- **Disease/pests:** None observed
- **Rating:** ☀️

**Lavatera trimestris 'Mont Blanc':** Brilliant white flowers opened in mid-July after plants recovered from a devastating rabbit attack. Nearly 30% of plant stems were eaten by rabbits in early July. Plants were quick to recover and flower coverage reached 60% by the end of July. Plants began to deteriorate in August and by the end of the season most plants were dead. The distinctive brown seed capsules detracted from the display. This plant is noteworthy for its luminous floral display in July.

- **Flowers:** 2-3 in., white
- **Plant size:** 12 in. x 14 in.; 15 in. spacing
- **Peak bloom:** Mid-July, 3-4 weeks
- **Disease/pests:** Severe rabbit damage
- **Rating:** ☀️

**Lavatera trimestris 'Pink Beauty':** Plants were taller and more open in habit than 'Mont Blanc'. With age, many of the stems became weak causing the plants to lose form. An array of foliar problems occurred during the season, including chewing insect damage, leaf discoloration due to nutrient deficiency, leaf puckering and sun scald damage. The light pink flowers were attractive but the floral display was unable to compensate for the overall poor health of the plants.

- **Flowers:** 2-3 in., light pink
- **Plant size:** 36 in. x 15-20 in.; 16-18 in. spacing
- **Peak bloom:** Mid-July, 2-3 weeks
- **Disease/pests:** Chewing insect damage, rabbit damage
- **Rating:** ☀️
**Nicotiana alata 'Sensation Mix':**
Deadheading was required only during the heaviest bloom period in July. The floral mix consisted of red, pink, purple, yellow, green and white. Plants tended to flop over with height. Plant health began to decline in early August, although floral display remained good.

- **Flowers:** 1-2 in., mix
- **Plant size:** 20-30 in. x 20 in.; 18 in. spacing
- **Peak bloom:** Early July, continuous
- **Disease/pests:** None observed
- **Rating:** **★★★★**

**Nicotiana alata 'Fragrant Cloud':** The fragrant, greenish-white flowers were abundant early in the season but surprisingly and abruptly declined in early August. In the course of one week, coverage dropped from 80% to 20%. Blooms exposed to full sun developed pink tinges or were scalded. Plants were leggy and stems lost rigidity with height.

- **Flowers:** 2 in., white
- **Plant size:** 25-35 in. x 18 in.; 18 in. spacing
- **Peak bloom:** Early July, 3 weeks
- **Disease/pests:** Minor chewing insect damage
- **Rating:** **★★★**

**Nicotiana langsdorffii:** Flowers set seed in early July and by mid-August seedlings were abundant throughout the plot. Deadheading was necessary during late July and early August. Flower coverage abruptly declined in late July, but reached nearly 60% again in late August. The abundant flowers, seed heads and the mass of seedlings created a busy display.

- **Flowers:** 3 in. long, light green
- **Plant size:** 30 in. x 20-24 in.; 20 in. spacing
- **Peak bloom:** Early July, 3-4 weeks
- **Disease/pests:** Minor rabbit damage
- **Rating:** **★★★★**

**Nicotiana sylvestris:** Flower coverage was never above 60% but did remain constant at that level. Minor deadheading was needed on occasion but spent flowers did not detract from the display. Outstanding habit and health. Leaves were light green and very large. Plants reached heights of 54 inches by mid-August and maintained a bold appearance throughout the season.

- **Flowers:** 4 in. long, white
- **Plant size:** 54 in. x 25 in.; 24 in. spacing
- **Peak bloom:** Mid-July, 4 weeks
- **Disease/pests:** Minor chewing insect damage
- **Rating:** **★★★★**

**Nierembergia hippocampanica 'Mont Blanc':**
(AAS 1993) Plants blended together forming a dense carpet of brilliant white flowers. Bloom coverage was superb during July and into late August. Spent blossoms remained on the plants but did not detract from the display. In mid-August several spots within the plot were browning and burning out. This did not significantly decrease the effect of the display.

- **Flowers:** 1 in., white with yellow centers
- **Plant size:** 4-6 in. x 9-10 in.; 10 in. spacing
- **Peak bloom:** Mid-July, 6 weeks
- **Disease/pests:** None observed
- **Rating:** **★★★★**

**Oxypetalum caeruleum 'Heavenborn':**
Flower production was never outstanding on this tender perennial but the pale blue flowers were very ornamental. The prominent seed pods began to develop in late July. The 5 inch long, brown speckled pods covered nearly 90% of the plot in late August. Plants maintained an arched habit and remained healthy during the entire season.

- **Flowers:** 1 in., pale blue with aqua center
- **Plant size:** 8-10 in. x 12 in.; 10 in. spacing
- **Peak bloom:** Early July, 8 weeks
- **Disease/pests:** None observed
- **Rating:** **★★★★**
**Pelargonium x hortorum 'Freckles':** (AAS 1991) Deadheading was necessary to maintain a clean floral display. Bloom coverage reached 80% in early July and continued for the duration of the month. Basal foliage began to deteriorate early in the season and some leaves developed a red cast. A good performance, despite the continual need for deadheading.

- **Flowers:** 4½ in., hot pink
- **Plant size:** 10-15 in. x 12-15 in.; 14 in. spacing
- **Peak bloom:** Early July, 4-5 weeks
- **Disease/pests:** None observed
- **Rating:** ⭐⭐⭐

**Petunia 'Purple Wave':** (AAS 1995) Plants formed a dense, mounded blanket of foliage covered with brilliant deep violet flowers. Aggressive, spreading plants crept 2½ feet into the adjacent plot by mid-August. Flower production was superb with coverage of 80% to 100%. Stems developed a brown cast in late August that detracted from the display. The flowers compensated by persisting well into September. Minor chlorosis late in the season.

- **Flowers:** 4½ in., deep violet
- **Plant size:** 4-6 in. x 24-30 in. (variable); 18 in. spacing
- **Peak bloom:** Mid-June, continued entire season
- **Disease/pests:** None observed
- **Rating:** ⭐⭐⭐⭐

**Petunia 'Celebrity Chiffon Morn':** (AAS 1995) Flower coverage quickly reached 100% in early July and remained throughout August. The large, pale pink flowers developed a white cast with age. 'Celebrity Chiffon Morn' is a floribunda-type petunia with an upright, non-spreading habit.

- **Flowers:** 3 in., pale pink
- **Plant size:** 12 in. x 10-14 in.; 15 in. spacing
- **Peak bloom:** Mid-July, 2 weeks
- **Disease/pests:** None observed
- **Rating:** ⭐⭐⭐

**Phacelia 'Lavender Lass':** Flower production was poor during the entire season with coverage barely reaching 20%. The habit was weak and leggy. Foliage problems, including chlorosis and a fungal disease were observed during July. Many plants began rotting in mid-July because of the fungal disease.

- **Flowers:** ¾ in., lavender
- **Plant size:** 12-14 in. x 10-14 in.; 15 in. spacing
- **Peak bloom:** Mid-July, 1 week
- **Disease/pests:** Unidentified fungus
- **Rating:** ⭐

**Phacelia 'Tropical Surf':** Habit was similar to 'Lavender Lass'. Flowers were slow to establish; coverage was not significant until mid-August when a respectable 60% was reached. Plant health also improved at this time. By late August, flower production decreased and the plants began to decline. Chlorosis and a rotting fungal disease were observed.

- **Flowers:** ¾ in., violet blue
- **Plant size:** 8-12 in. x 10-14 in.; 14 in. spacing
- **Peak bloom:** Mid-August, less than 1 week
- **Disease/pests:** Chlorosis, unidentified fungus
- **Rating:** ⭐
**Rudbeckia hirta 'Indian Summer':** (AAS 1995) Plants were installed in late June, three weeks after the other annuals. The overall display was outstanding. Foliage was dark green, healthy and long lasting. Plants maintained a healthy, robust, uniform appearance into late September. The vibrant, golden-yellow flowers formed a blanket of color above the foliage. Individual flowers were also long lasting. The first flowers that opened in early August were still of excellent quality in late August. Mildew was observed in late September but was not an aesthetic problem. 'Indian Summer' is highly recommended for its uniformity, late bloom period and high quality flowers.

Flowers: 5¼ in., golden-yellow
Plant size: 14-22 in. x 16 in.; 20-24 in. spacing
Peak bloom: Early September, to frost
Disease/pests: Mildew, limited damage
Rating: ***

**Salvia coccinea 'Cherry Blossom':** Flowers were open at about 40% coverage from early July on, but increased to 80% by late August. Plants maintained a clean, robust appearance throughout the season. Foliage was dark, glossy green and healthy. The two-toned flowers were not as densely borne as 'Lady in Red', but were still very attractive. Deadheads were visible but did not detract from the display. This annual is recommended for its late-season flowering.

Flowers: 8-14 in. raceme, pink and white
Plant size: 34 in. x 12-14 in.; 15-18 in. spacing
Peak bloom: Late August
Disease/pests: None observed
Rating: ***

**Salvia coccinea 'Lady in Red':** (AAS 1992) Deadheading was needed to maintain optimal appearance. Flower stalks were unsightly as the individual flowers died. Flower production peaked in early July and again in early August. Foliage was healthy and attractive early in the season but later developed chlorosis and mildew. The overall health improved late in the season, thus resulting in a good overall performance.

Flowers: 8-12 in. raceme, red
Plant size: 25 in. x 12-14 in.; 12-15 in. spacing
Peak bloom: Early July, 1-2 weeks; again in early August, 4-6 weeks
Disease/pests: Mildew, less than 5% affected
Rating: ****

**Silene pendula 'Peach Blossom':** Habit was low-growing, compact and very clean. Plant size was not uniform and flower display was uneven. While many plants were engulfed with blooms, others had far less. Overall flower coverage was only 20% to 30% at any time. Several areas began browning in late August but damage was minimal.

Flowers: ¾ in., light pink
Plant size: 4-6 in. x 15-16 in.; 15-16 in. spacing
Peak bloom: Early July, sporadic
Disease/pests: None observed
Rating: **

**Verbena speciosa 'Imagination':** (AAS 1993) Flower production in early July reached 90%. Flowering slowed significantly by early August, with the majority of flowers open around the perimeter of the plot only. Blossoms were very attractive to bees. With age, plant stems became top-heavy and fell over. Later in the season, the habit was loose, but still ornamental. An impressive performance, especially in the early season.

Flowers: 1¾ in., violet
Plant size: 16-18 in. x 16-18 in.; 10 in. spacing
Peak bloom: Early July, 3-4 weeks
Disease/pests: None observed
Rating: ****
*Verbena x hybrida 'Peaches & Cream':* (AAS 1992) Flower coverage was impressive throughout July and then declined in early August. The display was uneven; many areas were dense with foliage while others were nearly bare. Approximately 30% of the plot was affected by rabbit damage in mid-August. Foliage was dark green, glossy and attractive when healthy. Performance was good, despite the rabbit damage.

- **Flowers:** 2 in., peach
- **Plant size:** 8 in. x 13 in.; 15 in. spacing
- **Peak bloom:** Early June, 3-4 weeks
- **Disease/pests:** Rabbit damage; mildew, 10% affected
- **Rating:** 📚📚📚

*Verbena x hybrida 'Valentine Light Blue':* Flower coverage remained between 60% and 80% from late June through the end of August. Rabbits attacked plants in late July and again in mid-August. Most of the foliage was not affected but nearly 30% of the flowers were eaten. Plants filled in nicely and maintained a healthy appearance the entire season, despite the rabbit damage. Flower coverage was still at 25% in mid-September with many buds present.

- **Flowers:** 2-3 in., medium purple blue
- **Plant size:** 6-8 in. x 12-15 in.; 18 in. spacing
- **Peak bloom:** Late June, 6-7 weeks
- **Disease/pests:** Rabbit damage, 30% of flowers
- **Rating:** 📚📚📚

*Viola x wittrockiana 'Maxim Marina':* (AAS 1991) Coverage was consistently between 40% and 60% through late August but never attained the near 100% coverage noted in past years. Deadheads were evident in mid-July but did not pose a problem. Overall health and form was better than 'Padparadja'.

- **Flowers:** 2 in., white inlaid with purple
- **Plant size:** 8 in. x 10-12 in.; 10-12 in. spacing
- **Peak bloom:** Entire season
- **Disease/pests:** None observed
- **Rating:** 📚📚

*Viola x wittrockiana 'Padparadja':* (AAS 1991) Like 'Maxim Marina', the floral display of 'Padparadja' did not compare to its 1993 showing. Flower coverage peaked at 20% and remained at that level for the duration of the season. Plant health declined in early July and was slow to recover. By late August, nearly 25% of the plot had declined. 'Padparadja' is recommended however for its clean habit, uniform size and heat tolerance.

- **Flowers:** 1½ in., orange
- **Plant size:** 8 in. x 10-12 in.; 10-12 in. spacing
- **Peak bloom:** Early July, limited
- **Disease/pests:** None observed
- **Rating:** 📚

The Research program thanks Jeffrey CaPaul, John Wachtter and Andra Windorf for their assistance in collecting data on summer flowering annuals.
### Table 1: 1994 Summer Flowering Annuals

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Variety/Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agastache anisata</td>
<td></td>
</tr>
<tr>
<td>Argemone mexicana ‘Yellow Lustre’</td>
<td></td>
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<tr>
<td>Bupleurum griffithii</td>
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<tr>
<td>Bupleurum rotundifolium ‘Green Gold’</td>
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<tr>
<td>Gaillardia pulchella ‘Red Plume’</td>
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<tr>
<td>Campanula medium ‘Russian Pink’</td>
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<tr>
<td>Cannna x generalis ‘Tropical Rose’</td>
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<tr>
<td>Catharanthus roseus ‘Parasol’</td>
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<tr>
<td>Catharanthus roseus ‘Pretty in Rose’</td>
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<tr>
<td>Coreopsis grandiflora</td>
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<tr>
<td>Cuphea hyssopifolia ‘Desert Jewel’</td>
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<tr>
<td>Cuphea hyssopifolia ‘Desert Snow’</td>
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<tr>
<td>Dianthus chinensis ‘Charm Pink’</td>
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<tr>
<td>Dianthus ‘Floral Lace Carmine’</td>
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<tr>
<td>Dianthus ‘Floral Lace Purple’</td>
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<tr>
<td>Dianthus ‘Floral Lace Violet Picotee’</td>
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<tr>
<td>Dianthus chinensis ‘Ideal Pink’</td>
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<td>Dianthus chinensis ‘Ideal Rose’</td>
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<tr>
<td>Dianthus chinensis ‘Ideal Violet’</td>
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<tr>
<td>Dianthus chinensis ‘Princess Pink’</td>
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<tr>
<td>Dianthus chinensis ‘Telstar Pink’</td>
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<tr>
<td>Godetia ‘Apple Blossom’</td>
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<tr>
<td>Godetia ‘Satin Deep Rose’</td>
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<td>Godetia ‘Satin Lavender’</td>
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<td>Godetia ‘Satin Lilac Rose’</td>
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<td>Godetia ‘Satin White’</td>
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<tr>
<td>Lavandula angustifolia ‘Lady’</td>
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<tr>
<td>Lavatera trimestris ‘Mont Blanc’</td>
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<td>Lavatera trimestris ‘Pink Beauty’</td>
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<tr>
<td>Nicotiana alata ‘Sensation Mix’</td>
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<td>Nicotiana alata ‘Fragrant Cloud’</td>
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<td>Nicotiana sylvestris</td>
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<td>Nerium oleander ‘Mont Blanc’</td>
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<td>Osteospermum caeruleum ‘Heavenborn’</td>
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<td>Pelargonium x hortorum ‘Freckles’</td>
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<td>Pentas lanceolata ‘New Look’</td>
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<td>Petunia ‘Celebrity Chiffon Morn’</td>
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<td>Petunia ‘Purple Wave’</td>
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<td>Phlox ‘Lavender Lass’</td>
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<td>Phlox ‘Tropical Surf’</td>
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<td>Rudbeckia hirta ‘Indian Summer’</td>
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<td>Salvia cocinea ‘Cherry Blossom’</td>
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<td>Salvia cocinea ‘Lady in Red’</td>
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<td>Silene pendula ‘Peach Blossom’</td>
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<td>Verbena ‘Imagination’</td>
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<td>Verbena x hybrida ‘Peaches &amp; Cream’</td>
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<td>Verbena x hybrida ‘Valentine Light Blue’</td>
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<td>Viola x Wittrockiana ‘Maxim Marina’</td>
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<tr>
<td>Viola x Wittrockiana ‘Padparadja’</td>
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*All-America Selections Winners*

### Table 2: Weather Summary 1994

<table>
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<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
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<tbody>
<tr>
<td>Highest temp. °F</td>
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<td>97</td>
<td>94</td>
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<tr>
<td>Average high °F</td>
<td>80.4</td>
<td>80.5</td>
<td>78.9</td>
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<tr>
<td>Lowest temp. °F</td>
<td>39</td>
<td>52</td>
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<tr>
<td>Average low °F</td>
<td>57.4</td>
<td>62.7</td>
<td>59.5</td>
<td>54.2</td>
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<tr>
<td>Precipitation</td>
<td>6.82 in.</td>
<td>2.02 in.</td>
<td>3.48 in.</td>
<td>1.15 in.</td>
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<tr>
<td>Normal Precip.</td>
<td>4.08 in.</td>
<td>3.63 in.</td>
<td>3.53 in.</td>
<td>3.35 in.</td>
</tr>
</tbody>
</table>

*Data obtained from the Chicago Botanic Garden weather station*

**Latitudes:** 41° 51' N
**Longitudes:** 87° 37' W

**Altitude:** 178.4–190.36 m (584–626 ft, s.s.l.)

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