

Plant Evaluation Notes

1994 Report on Summer Flowering Annuals

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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 Selections² 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



Lagurus ovatus



Petunia 'Purple Wave'

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²All-America Selections is a non-profit organization that introduces new flowering plants and vegetables.

J. CaPaul



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: ⚪⚪⚪⚪

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 reseeded 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: ⚪⚪

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: 1-1½ in., green-yellow
 Plant size: 20 in. x 18 in.; 12 in. spacing
 Peak bloom: Early July, 2 weeks
 Disease/pests: None observed
 Rating: ⚪

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: 1-1½ in., green-yellow
 Plant size: 20 in. x 18 in.; 12 in. spacing
 Peak bloom: Early July, 2 weeks
 Disease/Pests: None observed
 Rating: ⚪

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: ⚪

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: ⚪

***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: ☹

***Canna x 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: 1½ 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: ☹☹☹☹

***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: 1½ 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: ☹☹☹☹

***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: ¼ 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: ¼-½ 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: ☹☹☹



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***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: ½-¾ 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: ★★★★★

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***Dianthus chinensis* 'Charm Pink'**: The flower color varied from white to dark pink throughout the season. Deadheading was necessary. Flower coverage reached an impressive 90% during early July, but declined to less than 40% for the remainder of the summer. Flower quality remained excellent into September.

Flowers: 1½ in., light to dark pink
 Plant size: 6-7 in. x 7-8 in.; 7 in. spacing
 Peak bloom: Early July, 1-2 weeks
 Disease/pests: None observed
 Rating: ★★★★★

A. Windort



***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* '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 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* '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: 6-8 in. x 8-10 in.;
 8 in. spacing
 Peak bloom: Early July, remained
 entire season
 Disease/pests: None observed
 Rating: ♂♂♂♂

***Dianthus chinensis* 'Princess Pink'**: Bloom coverage was superb in early July but gradually declined to 20% by early August. Like other *Dianthus* cultivars, deadheading was necessary to maintain a clean display. Foliar discoloration occurred in mid-July as the plants' health began to decline. By late August, half of the plot was either dying or dead.

Flowers: 1 in., bright pink
 Plant size: 7-9 in. x 8-9 in.;
 10 in. spacing
 Peak bloom: Early July, 2-3 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: ♂♂♂♂

***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: ♂



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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 habits were 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.

Flowers: 1 in., pale pink
 Plant size: 14-18 in. x 14 in.
 Peak bloom: Early July, 2 weeks
 Disease/pests: None observed
 Rating: Ⓐ

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.

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

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.

Flowers: 1½ in., hot pink with white margins
 Plant size: 10 in. x 8 in.
 Peak bloom: Early July, 2 weeks
 Disease/pests: None observed
 Rating: Ⓐ

Godetia 'Satin Lavender': This cultivar also suffered from sun scorch but not as severely as 'Satin Deep Rose'. As with all *Godetia* cultivars, plants required deadheading. Plant habit was irregular and unattractive.

Flowers: 1-1½ in., pink-lavender
 Plant size: 7 in. x 7 in.
 Peak bloom: Mid-July, 1 week
 Disease/pests: None observed
 Rating: Ⓐ

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 wilting 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: ☹

Lagurus ovatus: An impressive annual grass with pubescent flower spikes forming a vivid, silvery mass. Flower production was superb as coverage reached 90% in late July and remained for the entire season. Plants lost rigidity due to a torrential rain in early August. However, the plot was quick to recover and within a week had regained its erect nature. Older inflorescences developed a brown cast and basal foliage also turned brown in late summer. This did not detract from the display.

Flowers: 1-2 in. high, green-white
 Plant size: 12-16 in. foliage, 22 in. culms; 10 in. spacing
 Peak bloom: Early July, remained entire season
 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: ☹☹



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***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 langsdorfii*:** 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: ☺☺☺

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***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 hippomanica* '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: 🌸🌸🌸

***Pentas lanceolata* 'New Look':** Plants were healthy with an excellent habit, perfect for massing. Some plants were more floriferous than others, although flower production was never greater than 60%. Minor sun scald damage was observed on the basal foliage.

Flowers: 3-4 in., pink and white
 Plant size: 12 in. x 10-14 in.;
 12 in. spacing
 Peak bloom: Mid-July, 2 weeks
 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: 15 in. x 12-15 in.;
 15 in. spacing
 Peak bloom: Early July, continued
 entire season
 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: 🌸🌸🌸🌸

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

Flowers: ¾-1 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: ½ 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: 🌸



A. Windorf



***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: 5½ 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: ♂♂♂♂

J. CaPaul



***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: 1¼ in., violet

Plant size: 16-18 in. x 16-18 in.;
18 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 12-18 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: 🌟🌟



J.CaPaul



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Table 1: 1994 Summer Flowering Annuals

<i>Agastache anisata</i>	<i>Dianthus chinensis</i> 'Ideal Rose'	<i>Nicotiana sylvestris</i>
<i>Argemone mexicana</i> 'Yellow Lustre'	▲ <i>Dianthus chinensis</i> 'Ideal Violet'	▲ <i>Nierembergia hippomanica</i> 'Mont Blanc'
<i>Bupleurum griffithii</i>	<i>Dianthus chinensis</i> 'Princess Pink'	<i>Oxypetalum caeruleum</i> 'Heavenborn'
<i>Bupleurum rotundifolia</i> 'Green Gold'	<i>Dianthus chinensis</i> 'Telstar Pink'	▲ <i>Pelargonium</i> × <i>hortorum</i> 'Freckles'
<i>Callistephus chinensis</i> 'All Change Blue and White'	▲ <i>Gaillardia pulchella</i> 'Red Plume'	<i>Pentas lanceolata</i> 'New Look'
<i>Callistephus chinensis</i> 'All Change Red and White'	<i>Godetia</i> 'Apple Blossom'	▲ <i>Petunia</i> 'Celebrity Chiffon Morn'
<i>Campanula medium</i> 'Russian Pink'	<i>Godetia bottae</i> 'Amethyst Glow'	▲ <i>Petunia</i> 'Purple Wave'
▲ <i>Canna</i> × <i>generalis</i> 'Tropical Rose'	<i>Godetia</i> 'Satin Deep Rose'	<i>Phacelia</i> 'Lavender Lass'
▲ <i>Catharanthus roseus</i> 'Parasol'	<i>Godetia</i> 'Satin Lavender'	<i>Phacelia</i> 'Tropical Surf'
▲ <i>Catharanthus roseus</i> 'Pretty in Rose'	<i>Godetia</i> 'Satin Lilac Rose'	▲ <i>Rudbeckia hirta</i> 'Indian Summer'
<i>Corydalis sempervirens</i>	<i>Godetia</i> 'Satin Salmon'	<i>Salvia coccinea</i> 'Cherry Blossom'
<i>Cuphea hyssopifolia</i> 'Desert Jewel'	<i>Godetia</i> 'Satin White'	▲ <i>Salvia coccinea</i> 'Lady in Red'
<i>Cuphea hyssopifolia</i> 'Desert Snow'	<i>Lagurus ovatus</i>	<i>Silene pendula</i> 'Peach Blossom'
<i>Dianthus chinensis</i> 'Charm Pink'	▲ <i>Lavandula angustifolia</i> 'Lady'	▲ <i>Verbena speciosa</i> 'Imagination'
<i>Dianthus</i> 'Floral Lace Carmine'	<i>Lavatera trimetris</i> 'Mont Blanc'	▲ <i>Verbena</i> × <i>hybrida</i> 'Peaches & Cream'
<i>Dianthus</i> 'Floral Lace Purple'	<i>Lavatera trimetris</i> 'Pink Beauty'	<i>Verbena</i> × <i>hybrida</i> 'Valentine Light Blue'
<i>Dianthus</i> 'Floral Lace Violet Picotee'	<i>Nicotiana alata</i> 'Sensation Mix'	▲ <i>Viola</i> × <i>wittrockiana</i> 'Maxim Marina'
<i>Dianthus chinensis</i> 'Ideal Pink'	<i>Nicotiana alata</i> 'Fragrant Cloud'	▲ <i>Viola</i> × <i>wittrockiana</i> 'Padparadja'
	<i>Nicotiana langsdorfii</i>	

▲ All-America Selections Winners

Table 2: Weather Summary 1994

	June	July	August	September
Highest temp. °F	98	97	94	91
Average high °F	80.4	80.5	78.9	75.1
Lowest temp. °F	39	52	48	43
Average low °F	57.4	62.7	59.5	54.2
Precipitation	6.82 in.	2.02 in.	3.46 in.	1.15 in.
Normal Precip.	4.08 in.	3.63 in.	3.53 in.	3.35 in.

Data obtained from the Chicago Botanic Garden weather station
 Latitude: 41° 51'N, Longitude: 87° 37'W
 Altitude: 176.4-190.35m (624-669 ft. a.s.l.)

