

1996-97  
*Herbaceous  
Perennial*  
TRIAL GARDEN RESULTS



Circular 323  
February 1999  
Alabama Agricultural Experiment Station  
Luther Waters, Director  
Auburn University Auburn, Alabama

## CONTENTS

Introduction	1
Methods	1
Climatic Conditions	2
Trial Highlights	2
Evaluator's Notes	5

ON THE COVER: *Salvia leucantha* had the highest average bloom rating for any plant in 1996.

## ACKNOWLEDGMENTS

The authors gratefully acknowledge the substantial donation of plant material from the following nurseries: Saul Nursery (Atlanta, GA), Sandhill Nursery (Auburn, AL), Bluebird Nursery (Clarkson, NE), Wayside Gardens (Hodges, SC), and Goodness Grows (Lexington, GA). K-Power generously donated fertilizer for this study. Also, appreciation is expressed to the staff at EVSRC for support throughout the duration of this project.

First Printing 2M, February 1999

*Information contained herein is available to all persons without regard to race, color, sex, or national origin.*

# 1996-1997

## HERBACEOUS PERENNIAL TRIAL GARDEN RESULTS

DARBY M. QUINN, J. RAYMOND KESSLER, JR., JEFF L. SIBLEY,  
BRIDGET K. BEHE, AND JAMES S. BANNON

### INTRODUCTION

In the spring of 1996, 57 varieties of herbaceous perennials were planted for evaluation at the E.V. Smith Research Center (EVSRC) located in Shorter, AL, 26 miles east of Montgomery (latitude 32°30'N, longitude 85°40'W). The objective of the study was to determine overall performance of full-sun perennials in this USDA Hardiness Zone 8, AHS Heat Zone 8 environment. Results generated from this study will assist Alabama horticultural professionals and consumers in selection of flowering perennials for landscape and garden use. Variety selection was based on nursery donations and plants available from local retail stores. Landscape performance may vary from year to year as climatic conditions affect performance. Comparison of results from several display sites will increase the reliability of findings because weather, soil type, exposure, cultural practices, and other variables can greatly affect plant performance. Horticulturists are urged to visit several trial gardens to gain a better understanding of variety performance throughout a region or market area.

### METHODS

Raised beds of Norfolk-Orangeburg loamy sand soil (fine, loamy, siliceous, thermic Typic Kandiudults) were tilled and fumigated with methyl bromide two weeks before planting. No other fungicides or insecticides were applied during the trial period. A commercially available slow-release fertilizer (18-6-12) was pre-plant in-

---

Quinn is a former research specialist, Kessler is an assistant professor, Sibley is an assistant professor, and Behe is a former associate professor, in the Department of Horticulture. Bannon is superintendent of the E. V. Smith Research Center Horticulture Unit.

corporated into the beds as per soil test recommendations and then side-dressed again in the following spring (1997). No additional fertilizer was applied during the growing seasons. Six beds, each 6' × 80', were prepared for planting on April 11, 1996. Three plants per entry were grown in three separate beds (a total of nine plants per entry) in full sun. The plants were allowed to adjust to transplanting, and evaluations began July 3, 1996. Rainfall was supplemented by overhead sprinkler irrigation to provide an equivalent of one inch of water per week. Minimum deadheading of spent flowers, weeding by hand, and cutting back in either the fall or spring were the only other maintenance activities performed on any of the varieties.

Plants were evaluated every two weeks from July 3, 1996 through October 1997. Plants were rated by the same individual using a scale of 0 to 5 in three categories: flowering, foliage, and overall appearance. Plants were rated primarily on their floral displays, while size, shape, and freedom from insect or disease blemishes were also considered. A rating of 0 indicated the absence of a desired characteristic; 1—a minimal, but not impressive, amount of the characteristic, could be considered negative in the “foliage” and “overall” categories; 2—a small amount of the characteristic, not very impressive in the “foliage” and “overall” categories; 3—sufficient display to be attractive in the landscape; 4—above average display and quite beneficial in the landscape; and 5—superior display and extremely showy in the landscape. Ratings were made in whole number units.

## CLIMATIC CONDITIONS

Average daily air temperatures in the winter (December through February) of 1996 and 1997 were 1.5° and 2.6°F warmer than normal (daily air temperatures averaged over the years from 1961 through 1990), respectively (Table 1). Spring (March through May) of 1996 was cooler than normal by 0.6°F, while spring of 1997 was warmer than normal by 1.0°F. Average summer (June through September) temperatures in 1996 and 1997 were only 0.2° and 0.4°F warmer than normal, respectively. Fall (October through November) of 1996 and 1997 was warmer than normal by 0.7° and 2.1°F, respectively. Table 1 reports data on average daily sunlight, average rainfall and average chilling hours (< 45°F) during 1996 and 1997.

## TRIAL HIGHLIGHTS

### Bloom

The highest average bloom rating for any plant in 1996 was 4.9 for *Salvia leucantha* in October. It also performed well in September (4.5) and November (3.3) (Table 2). *Salvia leucantha* ratings for 1997 were 4.5 in October and 3.3 in September (Table 2).

The second highest rating in 1996 was received by *Lythrum virgatum* ‘Mordens Pink’, also with a rating of 4.9 in July of 1996; however performance and bloom duration were not as long as those of *Salvia leucantha*.

*Coreopsis rosea* had a peak rating of 4.7 in July of 1996 while *Coreopsis verticillata* ‘Moonbeam’ rated a 4.7 in July of 1996 and kept on blooming with a rating of 4.1 in August of 1996.

TABLE 1. AVERAGE DAILY SUNLIGHT, DAILY AIR TEMPERATURE, MONTHLY RAINFALL, AND CHILLING HOURS<sup>1</sup>

Month	Avg. sunlight <sup>2</sup>		Avg. air temperature			Total rainfall <sup>3</sup>			Chill hours	
	1996	1997	1996	1997	1961-90	1996	1997	1961-90	1996	1997
	w/m <sup>2</sup>	w/m	°F	°F	°F	in.	in.	in.	hrs.	hrs.
Jan	2299	2211	43.9	47.6	43.2	6.6	5.6	5.0	423	374
Feb	3267	2641	48.0	51.0	46.6	3.7	8.1	5.8	305	254
Mar	4062	4485	51.4	61.8	54.3	9.2	2.1	6.6	254	66
Apr	5182	5291	60.0	59.2	62.1	4.8	7.2	5.2	104	63
May	6627	5684	72.7	67.3	69.0	4.8	3.8	3.8	6	7
June	6545	5260	76.4	74.1	75.8	2.2	6.7	4.1	0	0
July	6135	6322	80.0	81.0	78.7	9.4	2.6	4.7	0	0
Aug	5696	5643	78.6	78.0	78.4	5.7	4.6	4.2	0	0
Sept	4744	5851	72.8	75.6	74.1	8.2	3.5	3.6	0	0
Oct	3466	M	62.9	63.9	63.7	1.4	3.2	2.6	42	50
Nov	2935	2661	54.2	50.5	54.8	2.6	8.4	4.1	187	243
Dec	2083	2177	49.0	45.7	46.8	4.3	6.1	5.2	316	430

<sup>1</sup> Data were provided by the National Weather Service at Auburn University. Rainfall was collected on site.

<sup>2</sup> Sunlight, or solar radiation, is measured in watts per square meter.

<sup>3</sup> Number of hours less than 45°F.

*Aster* × *frikartii* 'Monch' had a rating of 4.6 in July and a 4.0 in August 1996, also extending its effectiveness in the landscape. *Verbena canadensis* 'Alba' had peak rating in April of 1997 of 4.4, while *Coreopsis verticillata* 'Zagreb' peaked in July of 1996 with a rating of 4.2 and kept performing well into August with a 3.2.

Another good performer was *Boltonia asteroides* 'Pink Beauty'. It rated a 4.2 in August and a 3.6 in July of 1996. However, two of the longest blooming perennials studied were *Verbena bonariensis* with an average rating of 4.2, 4.0, and 3.4 in 1996 for the months of July, August, and September, respectively. Then in 1997, *Verbena bonariensis* started to show excellent color in May, June, and July with a ratings of 3.9, 3.7, and 3.2, respectively. *Lythrum salicaria* 'Robert' also had a long showing with a rating of 4.4 in July and a 3.9 in August of 1996 and then again in 1997 with a rating of 3.4 in June, 3.4 in July, and 3.9 in August. For a listing of the best flower ratings, see Table 2.

### Foliage

The perennial with the best foliage performance in this two-year study was *Verbena tenuisecta* 'Purple' (Table 3). This ground cover type perennial received an average rating of 4.0 or above for every month evaluated in 1996, with the exception of August. Starting in May and continuing through October of 1997, *Verbena tenuisecta* 'Purple' again did not fall below a rating of 4.0. This indicates a very healthy, disease- and heat-resistant perennial. *Veronica spicata* 'Red Fox' had a shorter duration of high foliage ratings than *Verbena tenuisecta* 'Purple' but ranked second in foliage performance due to several high ratings during the two years. The third best foliage performer was *Scabiosa columbaria* 'Butterfly Blue'. This exceptional perennial kept a rating of 4.0 or higher for every month except September in 1996. *Scabiosa columbaria* 'Butterfly Blue' received a rating of 4.0 or higher from March through June of 1997. A few other outstanding foliage performers were *Helianthus angustifolius*, *Achillea* × 'Moonshine', *Baptisia alba* 'Pendula', *Coreopsis verticillata* 'Moonbeam', and *Physostegia virginiana* 'Vivid'. For a listing of the best foliage ratings, see Table 3.

### Overall

The highest overall rating for the perennials in this study was *Lythrum virgatum* 'Mordens Pink' with an overall rating of 4.9 for July 1996 (Table 4). The second highest overall rating was a tie between *Coreopsis rosea* and *Coreopsis verticillata* 'Moonbeam' at 4.8, 'Moonbeam' had another excellent rating of 4.2 for August 1996. Another selection with an overall rating of 4.0 or higher for two months was *Verbena bonariensis* rating 4.2 and 4.0 for July and August 1996, respectively. The only variety to have a rating of 4.0 or higher for two months in 1996 and then one month in 1997 was *Salvia leucantha*. Other perennials with an overall rating of 4.0 or higher are listed in Table 4. For the entire evaluation results see Table 5, where selections are arranged by genus and species, color and rating. Any plant rated 2.5 or higher could be considered a very good performing plant and would be a worthwhile addition to a full sun garden located in USDA Hardiness Zone 8 and AHS Heat Zone 8.

## EVALUATOR'S NOTES

These evaluations demonstrate that the perennials studied generally performed better the first year after planting. Several varieties did not return the second year, though some natural reseeding occurred. Still other selections never fully recovered from the winter months or succumbed to stress in the summer. Plants that maintained an attractive foliage display while out of bloom and had highly rated bloom displays during the bloom season are worth incorporating into a full sun perennial or mixed border. Gardeners and growers are encouraged to try plants in several locations to determine their suitability for particular locations. However, plants with high ratings in this study are a good place to start, many of which appear to tolerate a full sun environment, require little care, and still perform well.

*Helianthus angustifolius* and *Salvia uliginosa* responded well to pruning once or twice during the growing season to maintain a manageable height and prevent plants from falling over. *Artemisia* × 'Powis Castle' did better if pruned in early spring rather than the fall or winter, because it had a tendency to die from winter injury if pruned too early. *Dictamnus albus* 'Purpureus', known for its slow development, gradually increased in size each year and should not be dismissed until given a few years to mature. Another slow starter, *Baptisia alba* 'Pendula' has graceful arching limbs with rounded leaflets on pinnately compound leaves that are attractive, with or without flowers.

Among the most impressive performers were *Scabiosa columbaria* 'Butterfly Blue' and 'Pink Mist'. Once they started blooming, flowers were present on one or more plants even through the winter. The *Scabiosas* had a tendency to reseed in the immediate vicinity, not aggressively, but well enough to provide additional plants for planting or to share with friends. Another favorite was *Verbena tenuisecta* 'Purple' with a moss-like carpet of foliage, which seemed to almost always have a few flowers and sometimes was literally covered with dark purple blooms. *Verbena tenuisecta* 'Alba', the white version, was also very nice, but seemed to produce fewer flowers. *Verbena canadensis* 'Homestead Purple' is another ground cover that produces purple flowers in mass. However, it tended to flower only along the edges of the spreading plant, leaving the center without blooms. *Verbena bonariensis* was also a favorite. It has a tall, open, airy habit with small purple flowers. *Geranium sanguineum* 'Album' produced delicate flowers on interesting palmate foliage and began to spread slowly, making a nice ground cover. *Rudbeckia fulgida* 'Goldstrum' was also a very good performer, with large, golden-color ray flowers that attracted butterflies. *Salvia leucantha* was magnificent during its long bloom season (close to three months), with grey pubescent leaves that provide a good back drop for earlier flowering plants. Bumblebees were very attracted to the flowers.

Several plants that did not overwinter performed well the first year and should still be considered as valuable additions to the landscape. These should be treated as annuals and replaced every year. One of the showiest was *Salvia van houttie* with dark maroon flowers that attracted hummingbirds. These plants were approximately three feet tall and two feet wide and completely covered with blooms. Once the

flowers fell, the dark maroon calyx remained, extending the "effective" period for several weeks. *Boltonia asteroides* var. *latisquama* 'Nana' also fell into this category of being treated as an annual, as did *Boltonia asteroides* 'Pink Beauty' and 'Snow Bank' along with *Gallardia* × *grandiflora* 'Goblin'. However, these last three produced seedlings to replace the mother plant. In general, *Coreopsis* selections ('Moonbeam', 'Zagreb', and *rosea*) were disappointing. They performed beautifully the first year, but the second year, although alive, they did not bloom well.

*Artemisia ludoviciana* 'Silver King' became so invasive it had to be removed from the trial. Therefore, we would not recommend planting it in a mixed border due to its aggressiveness. While *Lythrum* species are often considered invasive, we had very few seedlings germinate and no colonizing through underground stolons. Caution should still be used when planting this perennial, and it should not be introduced to native wetland areas.

**TABLE 2. AVERAGE BLOOM RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Achillea</i> × 'Moonshine'	6/97	3.7
	5/97	3.5
<i>Aster</i> × <i>frikarkii</i> 'Monch'	7/96	4.6
	8/96	4.0
<i>Boltonia asteroides</i> 'Pink Beauty'	7/96	4.2
	8/96	3.7
<i>Boltonia asteroides</i> 'Snowbank'	8/96	4.2
	7/96	3.6
<i>Boltonia asteroides</i> var. <i>latisquama</i> 'Nana'	7/96	3.2
<i>Ceratostigma plumbaginoides</i>	7/96	3.8
<i>Coreopsis rosea</i>	7/96	4.7
<i>Coreopsis verticillata</i> 'Moonbeam'	7/96	4.7
	8/96	4.1
<i>Coreopsis verticillata</i> 'Zagreb'	7/96	4.2
	8/96	3.2
<i>Echinacea purpurea</i> 'White Swan'	8/96	3.9
<i>Gaura lindheimeri</i>	5/97	4.2
<i>Helianthus angustifolius</i>	10/96	3.4
<i>Lythrum virgatum</i> 'Mordens Pink'	7/96	4.9
	7/97	3.1
<i>Lythrum salicaria</i> 'Robert'	7/96	4.4
	8/96	3.9
	8/97	3.9
	6/97	3.4
	7/97	3.4



**TABLE 2, CONTINUED. AVERAGE BLOOM RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Rudbeckia fulgida</i> 'Goldstrum'	8/96	4.0
	8/97	3.6
<i>Salvia van houttei</i>	10/96	4.0
	9/96	3.6
<i>Salvia farinacea</i> 'Strata'	7/96	3.6
<i>Salvia farinacea</i> 'Victoria Blue'	8/96	3.1
	5/97	3.4
<i>Salvia farinacea</i> 'Victoria White'	8/96	3.3
	7/96	3.2
	9/96	3.2
	5/97	3.8
<i>Salvia leucantha</i>	10/96	4.9
	9/96	4.5
	11/96	3.3
	10/97	4.5
	9/97	3.3
<i>Salvia uliginosa</i>	7/96	3.7
	9/96	3.2
	8/96	3.1
	6/97	3.6
<i>Scabiosa columbaria</i> 'Butterfly Blue'	4/97	4.1
<i>Verbena canadensis</i> 'Homestead Purple'	4/97	4.2
<i>Verbena bonariensis</i>	7/96	4.2
	8/96	4.0
	9/96	3.4
	5/97	3.9
	6/97	3.7
	7/97	3.2
<i>Verbena canadensis</i> 'Alba'	7/96	3.4
	4/97	4.4
<i>Verbena tenuisecta</i> 'Purple'	7/96	3.4
	5/97	3.4
	7/97	3.3

**TABLE 3. AVERAGE FOLIAGE RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Achillea</i> × ‘Moonshine’	10/96	4.8
	12/96	4.7
	7/96	4.6
	11/96	4.6
	4/97	5.0
	3/97	5.0
	5/97	5.0
<i>Artemisia</i> × ‘Powis Castle’	7/96	4.7
	8/96	4.1
<i>Aster</i> × <i>frikarkii</i> ‘Monch’	7/96	4.4
	8/96	4.0
<i>Baptisia alba</i> ‘Pendula’	7/96	4.6
	8/96	4.2
	9/96	4.2
	6/97	5.0
	5/97	5.0
	7/97	4.6
	4/97	4.2
<i>Boltonia asteroides</i> ‘Pink Beauty’	8/96	4.6
	7/96	4.4
<i>Boltonia asteroides</i> ‘Snowbank’	7/96	4.6
	8/96	4.6
<i>Boltonia asteroides</i> var. <i>latisquama</i> ‘Nana’	7/96	4.7
<i>Ceratostigma plumbaginoides</i>	7/96	4.1
<i>Coreopsis rosea</i>	7/96	4.9
	8/96	4.9
	9/96	4.3
<i>Coreopsis verticillata</i> ‘Moonbeam’	8/96	4.9
	7/96	4.7
	9/96	4.5
	7/97	4.7
	8/97	4.6
	9/97	4.4
	6/97	4.1
<i>Coreopsis verticillata</i> ‘Zagreb’	7/96	5.0
	8/96	5.0
	9/96	4.4
<i>Coreopsis verticillata</i> ‘Zagreb’	5/97	4.3
	6/97	4.3
<i>Dianthus plumarius</i> ‘Itsaul White’	7/96	4.3
	8/96	4.0

**TABLE 3, CONTINUED. AVERAGE FOLIAGE RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Dianthus plumarius</i> 'Itsaul White'	5/97	4.3
	6/97	4.2
<i>Echinacea angustifolia</i>	5/97	4.0
<i>Echinacea purpurea</i> 'White Swan'	7/96	4.2
	8/96	4.1
<i>Gaillardia</i> × <i>grandiflora</i> 'Goblin'	5/97	4.0
<i>Gaura lindheimeri</i>	7/96	4.1
	5/97	4.7
	4/97	4.5
<i>Geranium sanguineum</i> 'Album'	4/97	4.3
	5/97	4.2
<i>Helianthus angustifolius</i>	7/96	4.8
	8/96	4.7
	4/97	5.0
	5/97	5.0
	7/97	4.8
	3/97	4.7
	6/97	4.7
8/97	4.2	
<i>Lythrum virgatum</i> 'Mordens Pink'	7/96	4.2
	5/97	4.5
<i>Lythrum salicaria</i> 'Robert'	7/96	4.5
	5/97	4.9
	4/97	4.3
	6/97	4.1
<i>Physostegia virginiana</i> 'Vivid'	10/96	4.1
	7/96	4.1
	8/96	4.0
	5/97	4.9
	6/97	4.7
	7/97	4.5
<i>Rudbeckia fulgida</i> 'Goldstrum'	4/97	4.4
	7/96	4.9
	8/96	4.4
	5/97	4.9
	6/97	4.4
<i>Salvia farinacea</i> 'Victoria White'	4/97	4.4
<i>Salvia farinacea</i> 'Victoria White'	3/97	4.0
<i>Salvia leucantha</i>	8/96	4.6
	7/96	4.5
	6/97	4.2

**TABLE 3, CONTINUED. AVERAGE FOLIAGE RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Salvia officinalis</i> 'Purpurescens'	7/96	4.0
<i>Salvia uliginosa</i>	4/97	5.0
	5/97	4.1
<i>Scabiosa columbaria</i> 'Butterfly Blue'	11/96	4.4
	12/96	4.4
	7/96	4.3
	10/96	4.2
	8/96	4.0
	5/97	5.0
	4/97	4.9
	3/97	4.7
	6/97	4.1
<i>Sedum spectabile</i> 'Brilliant'	4/97	4.9
	3/97	4.9
	5/97	4.8
	6/97	4.3
<i>Sedum</i> × 'Autumn Joy'	4/97	4.4
	5/97	4.4
	6/97	4.4
	3/97	4.4
<i>Verbena canadensis</i> 'Homestead Purple'	7/96	4.0
<i>Verbena bonariensis</i>	7/96	4.2
	3/97	4.1
<i>Verbena canadensis</i> 'Alba'	7/96	4.0
<i>Verbena tenuisecta</i> 'Alba'	6/97	4.3
	5/97	4.2
	7/97	4.1
<i>Verbena tenuisecta</i> 'Purple'	7/96	4.2
	11/96	4.2
	10/96	4.2
	9/96	4.1
	12/96	4.0
	7/97	4.9
	5/97	4.7
	6/97	4.6
	8/97	4.5
	9/97	4.2
<i>Verbena tenuisecta</i> 'Purple'	10/97	4.0
<i>Veronica spicata</i> 'Red Fox'	8/96	5.0
	9/96	5.0
	10/96	4.8

**TABLE 3, CONTINUED. AVERAGE FOLIAGE RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Veronica spicata</i> 'Red Fox'	7/96	4.5
	6/97	5.0
	5/97	4.7
	4/97	4.5
	7/97	4.3
	8/97	4.3
	9/97	4.3

**TABLE 4. AVERAGE OVERALL RATING FOR BEST PERFORMING PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Date	Bloom
<i>Achillea</i> × 'Moonshine'	5/97	4.3
<i>Artemisia</i> × 'Powis Castle'	7/96	4.0
<i>Aster</i> × <i>frikarkii</i> 'Monch'	7/96	4.2
<i>Boltonia asteroides</i> 'Pink Beauty'	7/96	4.1
<i>Boltonia asteroides</i> 'Snowbank'	8/96	4.1
<i>Coreopsis rosea</i>	7/96	4.8
<i>Coreopsis verticillata</i> 'Moonbeam'	7/96	4.8
	8/96	4.2
<i>Coreopsis verticillata</i> 'Zagreb'	7/96	4.4
<i>Gaura lindheimeri</i>	5/97	4.3
<i>Lythrum virgatum</i> 'Mordens Pink'	7/96	4.9
<i>Lythrum salicaria</i> 'Robert'	7/96	4.5
<i>Rudbeckia fulgida</i> 'Goldstrum'	8/96	4.0
	10/96	4.7
	9/96	4.4
<i>Salvia leucantha</i>	10/97	4.5
	4/97	4.2
	4/97	4.2
<i>Scabiosa columbaria</i> 'Butterfly Blue'	4/97	4.2
<i>Verbena canadensis</i> 'Homestead Purple'	4/97	4.2
<i>Verbena bonariensis</i>	7/96	4.2
	8/96	4.0
<i>Verbena canadensis</i> 'Alba'	4/97	4.4

**TABLE 5. AVERAGE BLOOM, FOLIAGE, AND OVERALL RATINGS FOR PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Dates	Bloom	Foliage	Overall
<i>Achillea</i> × 'Moonshine'	1996	0.1	3.6	2.2
	1997	1.3	3.3	2.4
	Avg	0.8	3.4	2.3
<i>Achillea</i> × 'Coronation Gold'	1996	0.5	1.9	1.1
	1997	0.6	2.3	1.4
	Avg	0.5	2.1	1.3
<i>Artemisia ludoviciana</i> 'Silver King'	1996	0.1	1.6	1.2
	1997	0.0	0.0	0.0
	Avg	0.0	0.7	0.5
<i>Artemisia</i> × 'Powis Castle'	1996	0.0	3.1	2.3
	1997	0.0	2.7	1.7
	Avg	0.0	2.9	1.9
<i>Aster</i> × <i>frikarkii</i> 'Monch'	1996	2.1	2.8	2.2
	1997	0.3	1.0	0.5
	Avg	1.1	1.8	1.3
<i>Baptisia alba</i> 'Pendula'	1996	0.0	3.2	1.4
	1997	0.1	3.5	1.6
	Avg	0.1	3.4	1.5
<i>Boltonia asteroides</i> 'Pink Beauty'	1996	1.7	3.0	2.1
	1997	0.0	0.2	0.1
	Avg	0.7	1.4	0.9
<i>Boltonia asteroides</i> 'Snowbank'	1996	1.7	2.4	2.0
	1997	0.0	0.7	0.4
	Avg	0.8	1.4	1.1
<i>Boltonia asteroides</i> var. <i>latisquama</i> 'Nana'	1996	1.1	2.1	1.3
	1997	0.3	1.3	0.6
	Avg	0.6	1.6	0.9
<i>Campanula carpatica</i> 'Blue Clip'	1996	0.0	0.4	0.2
	1997	0.0	0.0	0.0
	Avg	0.0	0.2	0.1
<i>Campanula carpatica</i> 'White Clips'	1996	0.0	0.8	0.4
	1997	0.1	0.2	0.2
	Avg	0.0	0.5	0.2
<i>Centranthus ruber</i> 'Albus'	1996	0.0	0.0	0.0
	1997	0.0	0.0	0.0
	Avg	0.0	0.0	0.0
<i>Centranthus ruber</i> 'Coccineus'	1996	0.0	0.1	0.0
	1997	0.0	0.0	0.0
	Avg	0.0	0.0	0.0
<i>Ceratostigma plumbaginoides</i>	1996	1.3	2.2	1.5
	1997	0.3	1.6	0.8
	Avg	0.7	1.9	1.1

TABLE 5, CONTINUED. AVERAGE BLOOM, FOLIAGE, AND OVERALL RATINGS FOR PERENNIALS IN THE 1996-97 TRIAL GARDEN

Variety	Dates	Bloom	Foliage	Overall
<i>Coreopsis rosea</i>	1996	1.4	2.8	1.8
	1997	0.0	0.7	0.3
	Avg	0.6	1.6	1.0
<i>Coreopsis verticillata</i> 'Moonbeam'	1996	1.9	3.5	2.3
	1997	0.7	3.3	1.6
	Avg	1.2	3.4	1.9
<i>Coreopsis verticillata</i> 'Zagreb'	1996	1.4	3.0	1.9
	1997	0.3	2.8	1.2
	Avg	0.8	2.9	1.5
<i>Dianthus plumarius</i> 'Itsaul White'	1996	0.0	3.3	1.7
	1997	0.3	3.4	1.5
	Avg	0.2	3.4	1.6
<i>Dictamnus albus</i> 'Purpureus'	1996	0.0	1.2	0.6
	1997	0.0	1.3	0.4
	Avg	0.0	1.3	0.5
<i>Echinacea angustifolia</i>	1996	0.0	1.7	0.7
	1997	0.1	2.4	0.9
	Avg	0.1	2.1	0.8
<i>Echinacea purpurea</i> 'Bright Star'	1996	1.0	2.3	1.5
	1997	0.4	1.7	0.8
	Avg	0.6	1.9	1.1
<i>Echinacea purpurea</i> 'White Swan'	1996	1.5	2.6	1.8
	1997	0.5	2.2	1.1
	Avg	0.9	2.4	1.4
<i>Euphorbia epithymoides</i>	1996	0.0	0.4	0.2
	1997	0.0	0.0	0.0
	Avg	0.0	0.2	0.1
<i>Gaillardia</i> × <i>grandiflora</i> 'Goblin'	1996	1.0	2.5	1.5
	1997	0.6	2.7	1.3
	Avg	0.8	2.6	1.4
<i>Gaura lindheimeri</i>	1996	0.8	2.5	1.5
	1997	1.4	3.1	2.0
	Avg	1.2	2.8	1.8
<i>Geranium sanguineum</i> 'Album'	1996	0.0	2.2	1.1
	1997	0.3	3.3	1.5
	Avg	0.2	2.8	1.3
<i>Geranium</i> × 'Johnson's Blue'	1996	0.2	0.9	0.5
	1997	0.5	1.5	0.8
	Avg	0.4	1.3	0.7
<i>Geranium</i> × <i>oxonianum</i> 'Claridge Druce'	1996	0.0	1.3	0.7
	1997	0.1	1.0	0.5
	Avg	0.1	1.1	0.6
<i>Helianthus angustifolius</i>	1996	0.8	3.0	1.4

**TABLE 5, CONTINUED. AVERAGE BLOOM, FOLIAGE, AND OVERALL RATINGS FOR PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Dates	Bloom	Foliage	Overall
<i>Helianthus angustifolius</i>	1997	0.4	4.2	1.4
	Avg	0.6	3.7	1.4
	<i>Linum perenne</i>	1996	0.1	2.0
1997		0.0	1.3	0.5
Avg		0.1	1.6	0.7
<i>Lythrum virgatum</i> 'Mordens Pink'	1996	1.3	2.2	1.8
	1997	0.7	2.6	1.4
	Avg	1.0	2.4	1.6
<i>Lythrum salicaria</i> 'Robert'	1996	1.9	2.9	2.2
	1997	1.6	3.2	2.1
	Avg	1.7	3.1	2.1
<i>Oenothera fruticosa</i> 'Fireworks'	1996	0.0	0.7	0.4
	1997	0.1	0.7	0.3
	Avg	0.1	0.7	0.4
<i>Phlox maculata</i> 'Miss Lingard'	1996	0.7	1.6	1.0
	1997	0.3	1.6	0.7
	Avg	0.5	1.6	0.9
<i>Physostegia virginiana</i> 'Crown White'	1996	0.4	2.6	1.0
	1997	0.6	3.1	1.1
	Avg	0.5	2.9	1.1
<i>Physostegia virginiana</i> 'Vivid'	1996	0.2	3.2	0.9
	1997	0.5	3.7	1.3
	Avg	0.4	3.5	1.2
<i>Rudbeckia fulgida</i> 'Goldstrum'	1996	1.8	3.1	2.3
	1997	1.0	3.4	1.7
	Avg	1.4	3.3	2.0
<i>Salvia van houttei</i>	1996	2.1	2.5	2.1
	1997	0.1	0.5	0.3
	Avg	1.0	1.4	1.1
<i>Salvia farinacea</i> 'Strata'	1996	1.6	2.1	1.8
	1997	1.0	2.0	1.3
	Avg	1.3	2.0	1.5
<i>Salvia farinacea</i> 'Victoria Blue'	1996	1.9	2.3	2.0
	1997	1.5	2.8	1.9
	Avg	1.7	2.6	1.9
<i>Salvia farinacea</i> 'Victoria White'	1996	2.2	2.4	2.2
	1997	1.9	3.1	2.2
	Avg	2.1	2.8	2.2
<i>Salvia leucantha</i>	1996	2.1	3.3	2.5
	1997	1.3	3.3	1.9
	Avg	1.7	3.3	2.2
<i>Salvia officinalis</i> 'Purpurescens'	1996	0.0	3.0	1.9
	1997	0.0	1.7	1.1



**TABLE 5, CONTINUED. AVERAGE BLOOM, FOLIAGE, AND OVERALL RATINGS FOR PERENNIALS IN THE 1996-97 TRIAL GARDEN**

Variety	Dates	Bloom	Foliage	Overall
<i>Salvia officinalis</i> 'Purpurescens'	Avg	0.0	2.3	1.5
<i>Salvia uliginosa</i>	1996	2.2	3.0	2.3
	1997	1.3	2.9	1.9
	Avg	1.7	2.9	2.1
<i>Scabiosa columbaria</i> 'Butterfly Blue'	1996	1.0	3.6	1.6
	1997	1.6	3.6	2.1
	Avg	1.3	3.6	1.9
<i>Scabiosa columbaria</i> 'Pink Mist'	1996	1.3	3.1	1.7
	1997	1.6	3.2	2.0
	Avg	1.5	3.1	1.9
<i>Sedum spectabile</i> 'Brilliant'	1996	0.1	1.8	1.1
	1997	0.6	3.3	1.8
	Avg	0.4	2.6	1.5
<i>Sedum</i> × 'Autumn Joy'	1996	0.3	2.0	1.1
	1997	0.9	3.2	1.9
	Avg	0.7	2.7	1.6
<i>Solidago</i> 'Crown of Rays'	1996	0.7	2.4	1.4
	1997	0.4	2.0	0.9
	Avg	0.6	2.2	1.1
<i>Tagetes lucida</i>	1996	0.0	0.0	0.0
	1997	0.0	0.0	0.0
	Avg	0.0	0.0	0.0
<i>Verbena canadensis</i> 'Homestead Purple'	1996	1.4	3.1	1.8
	1997	1.8	3.2	2.3
	Avg	1.6	3.2	2.0
<i>Verbena bonariensis</i>	1996	2.5	2.8	2.6
	1997	2.1	2.2	2.3
	Avg	2.3	2.5	2.4
<i>Verbena canadensis</i> 'Alba'	1996	1.2	3.1	1.7
	1997	1.5	3.1	2.0
	Avg	1.3	3.1	1.9
<i>Verbena canadensis</i> 'Pink'	1996	1.3	2.7	1.7
	1997	1.7	3.0	2.1
	Avg	1.5	2.9	1.9
<i>Verbena tenuisecta</i> 'Alba'	1996	1.3	3.0	1.7
	1997	1.9	3.5	2.3
	Avg	1.7	3.3	2.0
<i>Verbena tenuisecta</i> 'Purple'	1996	1.8	3.5	2.1
	1997	2.4	4.1	2.8
	Avg	2.1	3.9	2.5
<i>Veronica spicata</i> 'Red Fox'	1996	0.0	3.9	1.4
	1997	0.1	4.2	1.0
	Avg	0.1	4.1	1.2



✓ *Aster x frikarkii* 'Monch' 1

2 *Boltonia asteroides* 'Snowbank' ✓



✓ *Coreopsis rosea* 3

4 *Coreopsis verticillata* 'Zagreb' ✓



✓ *Gaillardia x grandiflora* 'Goblin' 5

6 *Gaura lindheimeri*



✓ *Helianthus angustifolius* 7



8 ✓ *Lythrum virgatum* 'Mordens Pink'



✓ *Lythrum salicaria* 'Robert' 9



10 *Salvia van houttei*



✓ *Salvia leucantha* 11



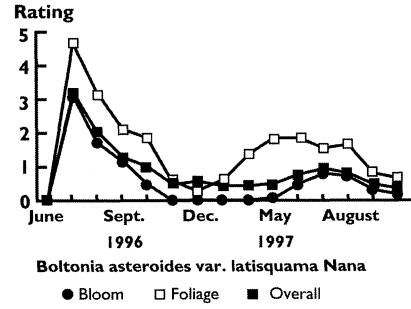
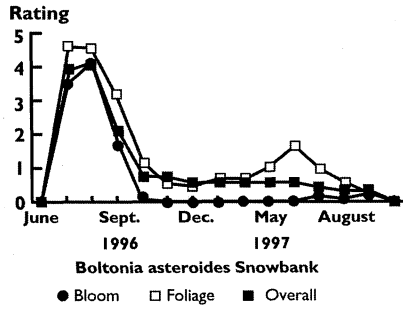
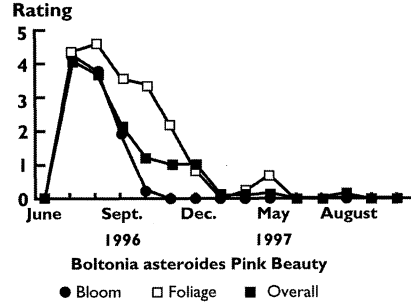
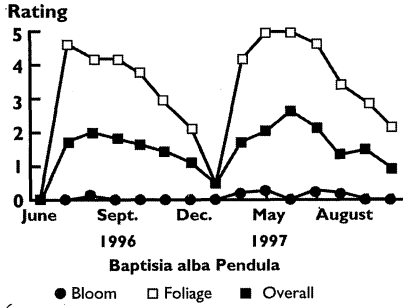
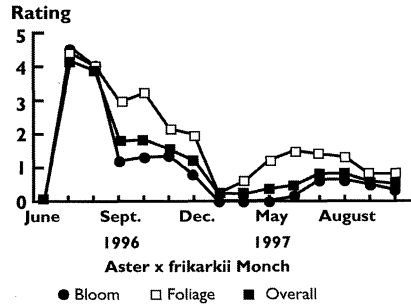
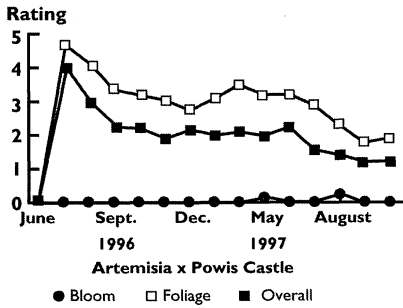
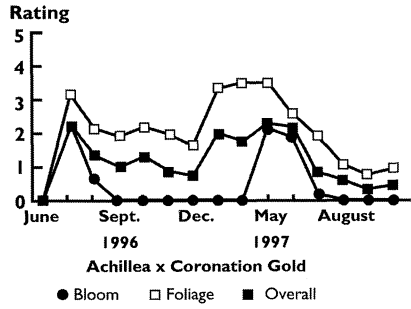
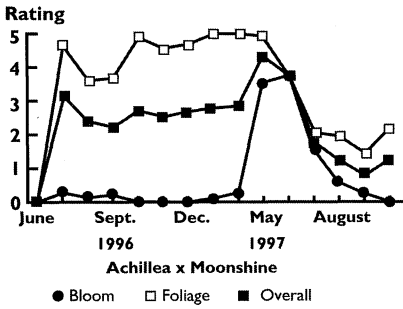
12 *Salvia uliginosa*

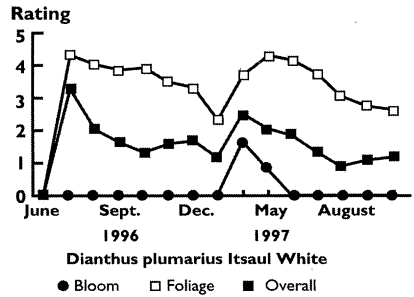
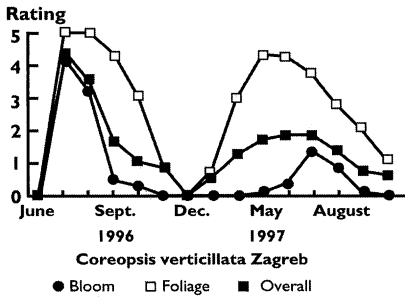
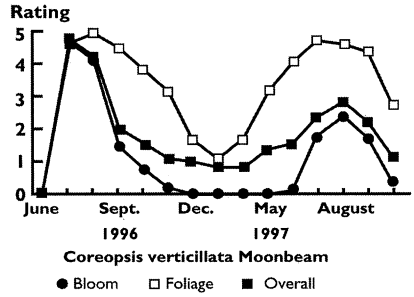
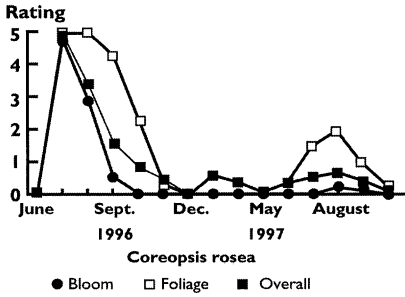
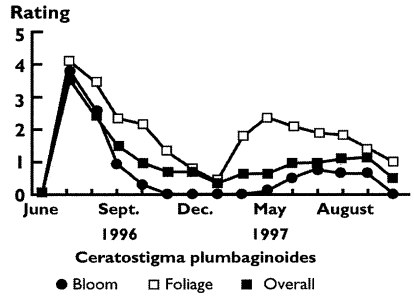
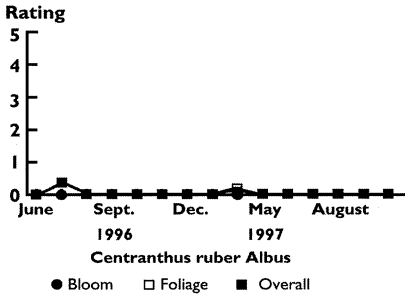
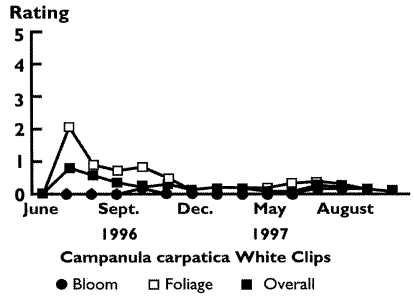
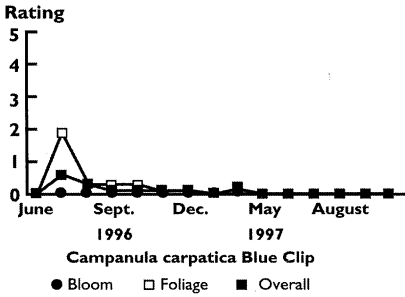


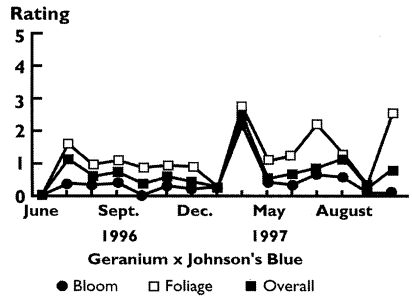
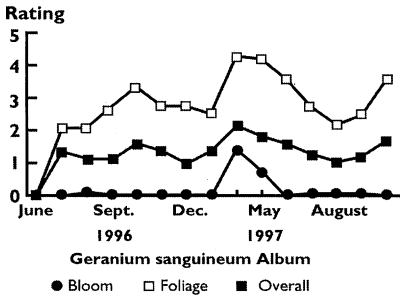
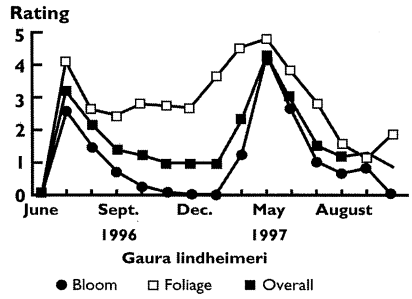
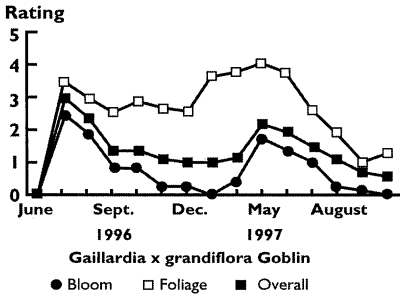
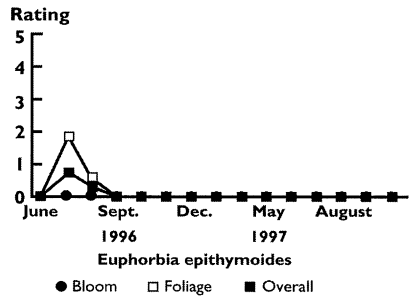
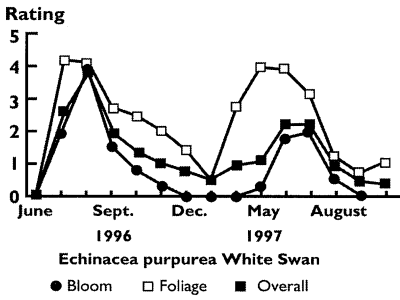
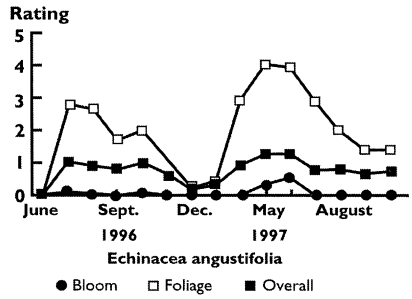
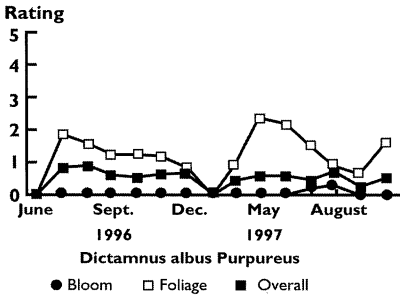
*Scabiosa columbaria* 'Pink Mist' 13 14 ✓ *Verbena canadensis* 'Homestead Purple'

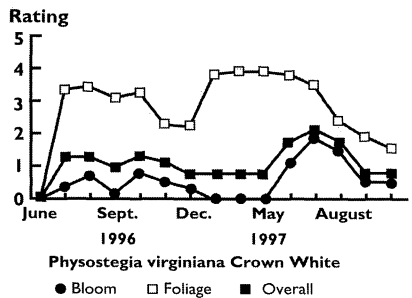
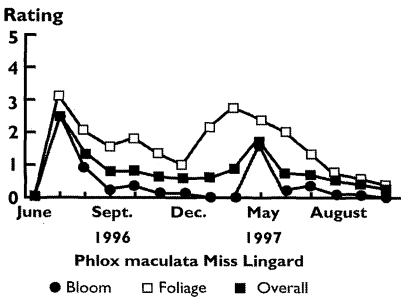
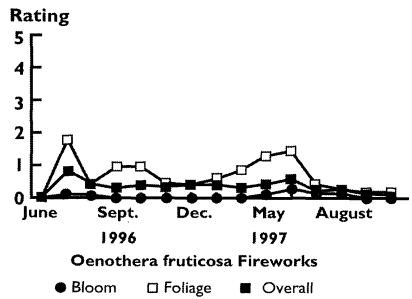
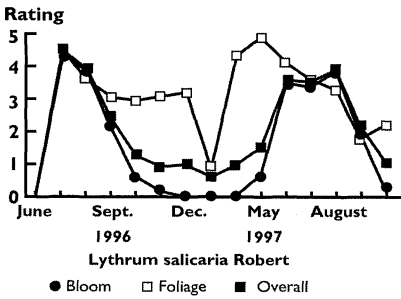
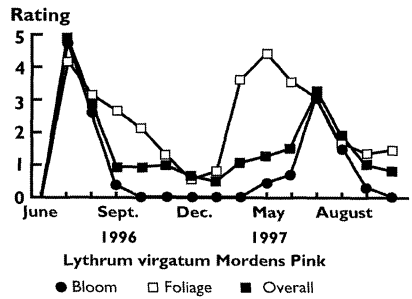
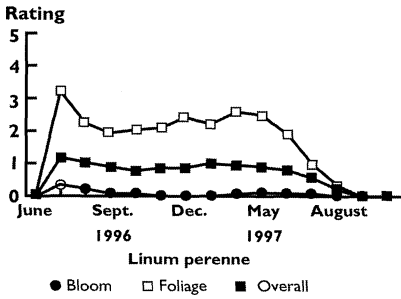
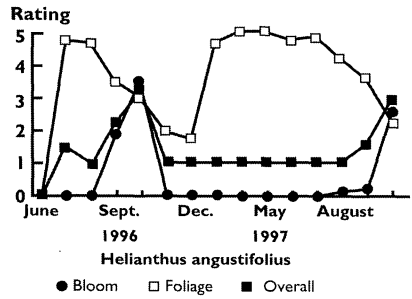
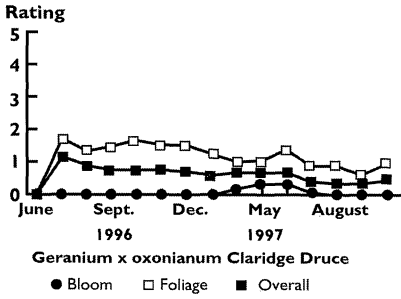


✓ *Verbena bonariensis* 15 16 *Verbena tenuisecta* 'White' ✓

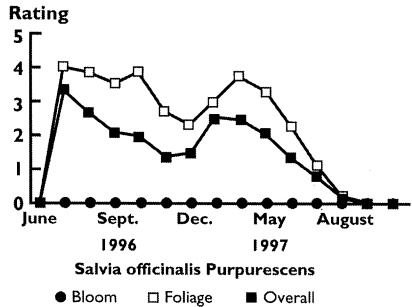
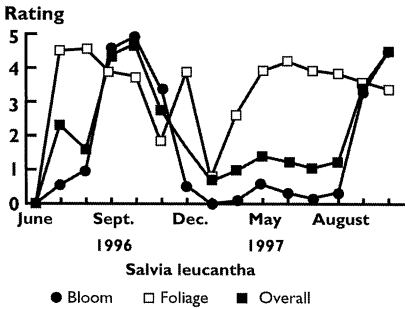
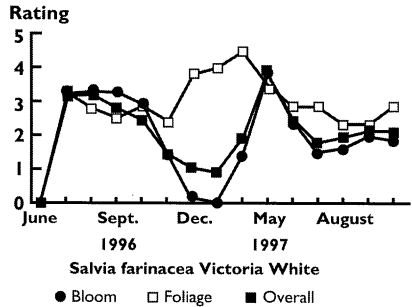
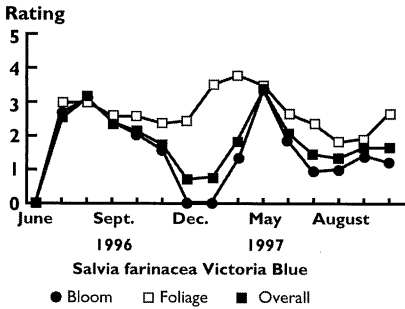
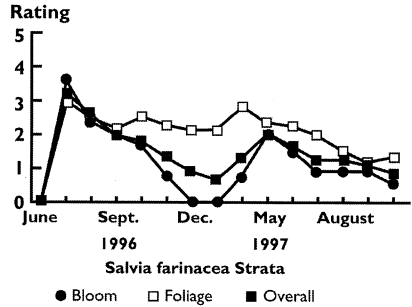
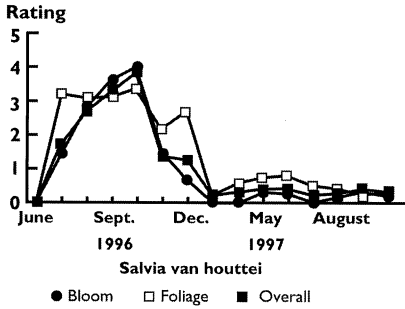
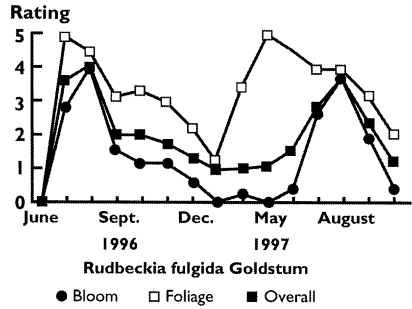
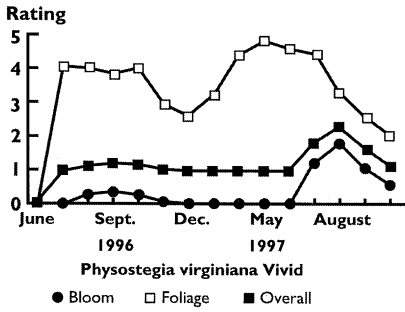


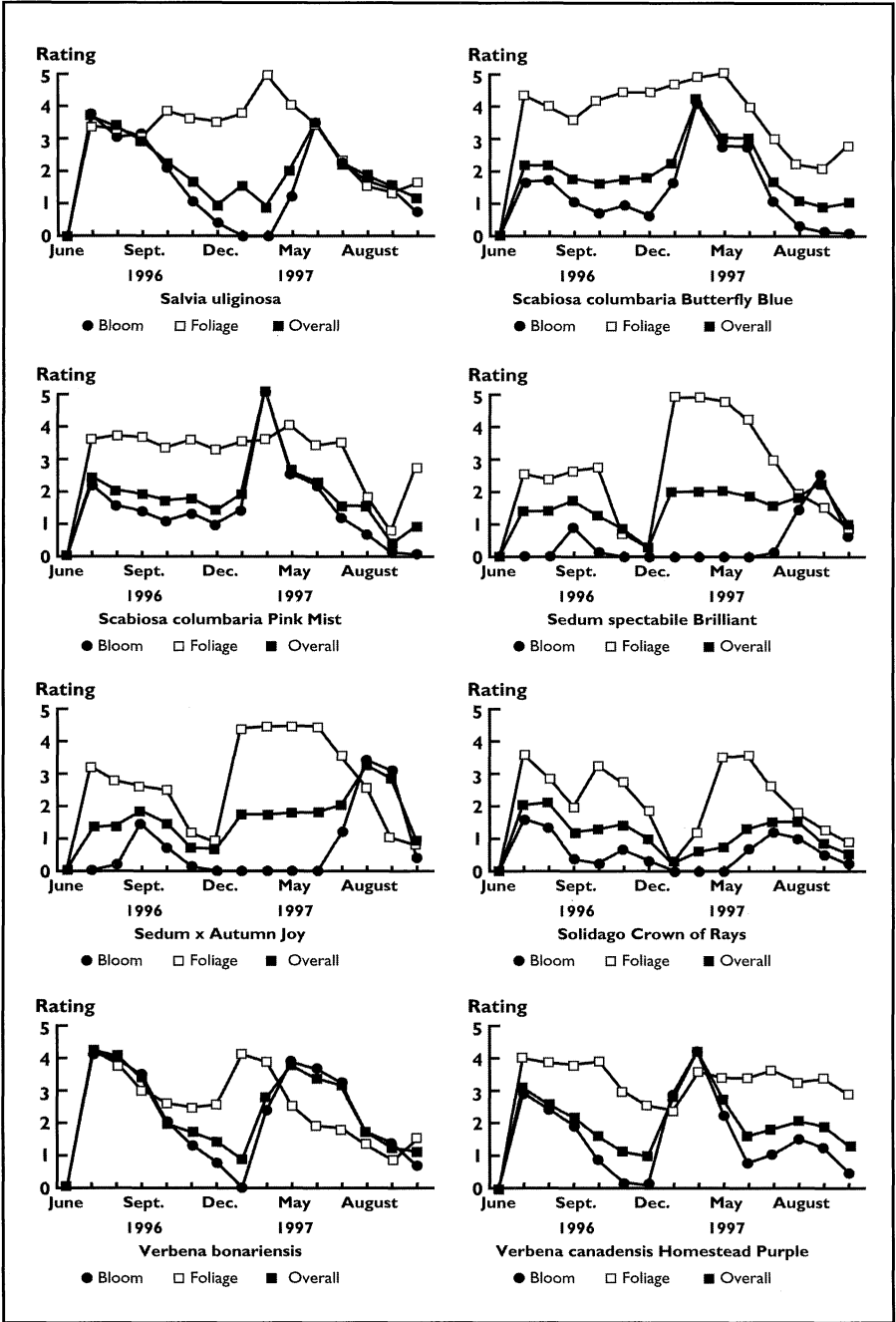


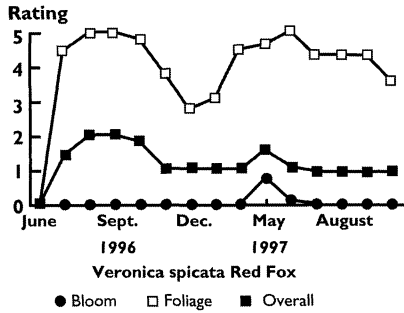
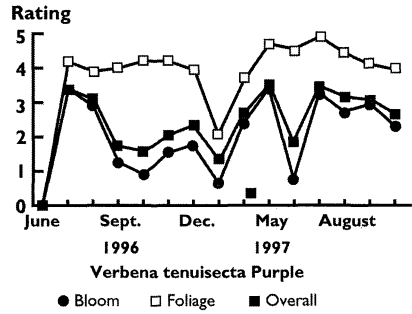
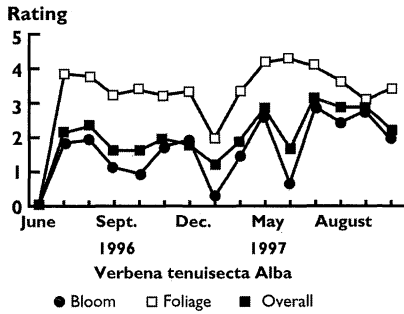
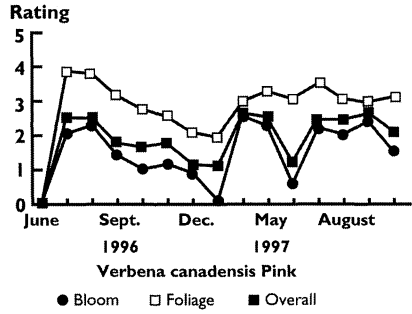
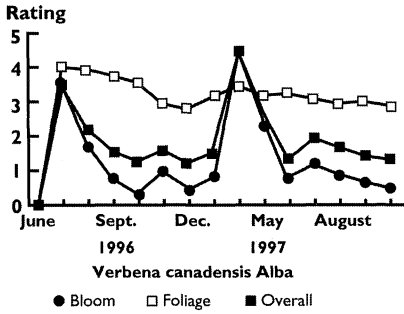






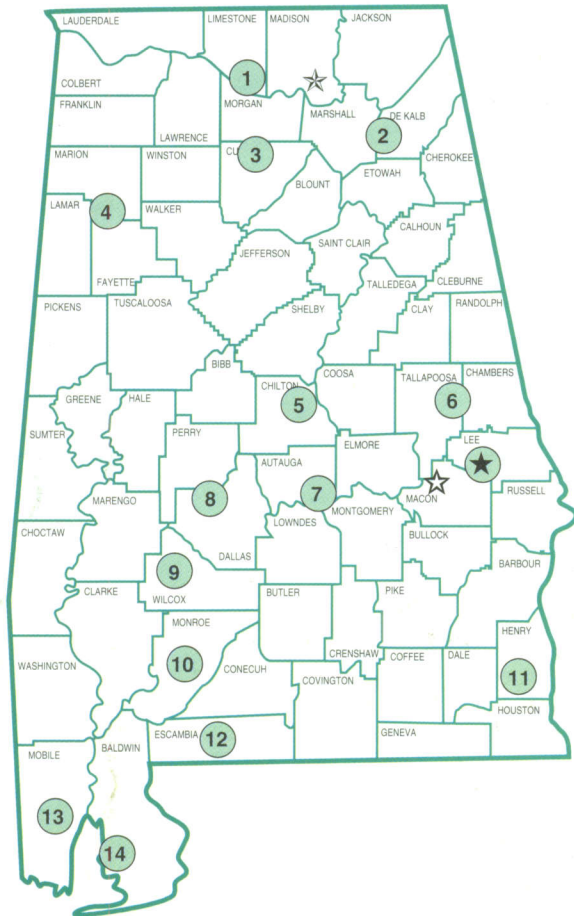






# Alabama's Agricultural Experiment Station AUBURN UNIVERSITY

With an agricultural research unit in every major soil area, Auburn University serves the needs of field crop, livestock, forestry, and horticultural producers in each region in Alabama. Every citizen of the state has a stake in this research program, since any advantage from new and more economical ways of producing and handling farm products directly benefits the consuming public.



## Research Unit Identification

- ★ Main Agricultural Experiment Station, Auburn.
- ☆ Alabama A&M University
- ☆ E. V. Smith Research Center, Shorter.

1. Tennessee Valley Research and Extension Center, Belle Mina.
2. Sand Mountain Research and Extension Center, Crossville.
3. North Alabama Horticulture Station, Cullman.
4. Upper Coastal Plain Research Station, Winfield.
5. Chilton Area Horticulture Station, Clanton.
6. Piedmont Research Station, Camp Hill.
7. Prattville Experiment Field, Prattville.
8. Black Belt Research and Extension Center, Marion Junction.
9. Lower Coastal Plain Research Station, Camden.
10. Monroeville Experiment Field, Monroeville.
11. Wiregrass Research and Extension Center, Headland.
12. Brewton Experiment Field, Brewton.
13. Ornamental Horticulture Station, Spring Hill.
14. Gulf Coast Research and Extension Center, Fairhope.