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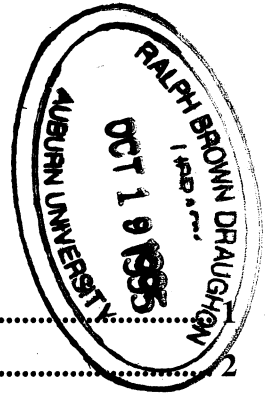
1994

*Summer
Trial Garden
Results*



**Circular 315
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Alabama Agricultural Experiment Station
Lowell T. Frobish, Director
Auburn University, Alabama**

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ON THE COVER: The 1992 All-America Selections Winner, *Salvia Lady in Red*, was the top performer in the summer 1994 AAS Display Garden at the Alabama Agricultural Experiment Station's E.V. Research Center.

1994 Summer Trial Garden Results

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INTRODUCTION

In the summer of 1994, 270 bedding plant cultivars were evaluated in the All-America Selections (AAS) Display Garden at the E.V. Smith Research Center (EVSRC). The objective of this study was to determine the heat tolerance of summer-flowering annual plant cultivars to assist Alabama horticultural professionals and consumers in plant selection. Results may vary from year to year as climatic conditions affect cultivar performance.

AAS is a non-profit organization founded in 1932 to encourage the development of superior flower and vegetable cultivars through controlled trial; select AAS "winners" based on the nationwide trial; and communicate these winners to professionals and consumers through a network of display gardens and printed media. The EVSRC Trial Garden was established as an AAS Display Garden in 1993. EVSRC, a unit of the Alabama Agricultural Experiment Station, is located in Shorter, 15 miles east of Montgomery, Ala. (latitude 32° 30'N, longitude 85° 40'W).

Similar tests were conducted at more than 200 display gardens throughout the U.S. to assess the general performance of new bedding plant cultivars under local environmental conditions. Other display gardens in Alabama are at Bellingrath Gardens in Theodore and the Birmingham Botanical Garden. This publication presents results from the E.V. Smith trials. Comparison of results from several display sites will increase the reliability of the findings because weather, soil, exposure, cultural practices, and other variables can greatly affect plant performance.

Behe is an associate professor, Walker is an undergraduate research assistant, and Williams is an assistant professor in the AU Department of Horticulture. Witt is superintendent of the E.V. Smith Research Center Horticulture Unit.

METHODS

Seeds of the entries were donated by several companies and grown by a local commercial transplant producer. Beds were located in Norfolk-Orangeburg loamy sand association soil (fine, loamy, siliceous, thermic Typic Kandiodults). Beds were tilled and fumigated with methyl bromide two weeks before planting. A commercially available slow-release fertilizer (18-6-12) was preplant incorporated into the beds at a rate of five pounds per 100 square feet. No additional fertilizer was added during the season. Transplants were planted on May 15, 1994. Twelve plants per entry were spaced nine inches from the center in a double row. All plants were grown in full sun, with the exception of the impatiens, which were grown under aluminum hoop frames covered with 60% black shade fabric. Rainfall was supplemented by overhead sprinkler irrigation to provide an equivalent of one inch of water per week.

Eight of 12 plants per entry were evaluated every two weeks from June 23 through Sept. 29; the outer four plants on each side of the test plants were used as guard rows. Plants were rated by the same individual using a scale of 1-5. Flowering plants were rated primarily on their floral displays, while size, shape, and freedom from insect or disease blemishes were also considered. A rating of 1 indicated a small display of foliage with no flowers present; 2 -- adequate amount of foliage with no flowers or few buds showing; 3 -- large amount of foliage and a relatively small floral display; 4 -- sufficient foliage and floral display to be attractive in the landscape; and 5 -- superior floral display and sufficient foliage display. A rating of 0 indicated the plant had died. Ratings were made in whole number units. Display was considered to be the size and color of the leaves.

CLIMATIC CONDITIONS

Average daily sunlight levels for June and July were lower than the average for the last 11 years, whereas the average daily sunlight levels for August and September were higher than the 11-year average (Table 1). The average daily air temperatures for all four months were close to the average temperatures for the last 30 years. The average monthly rainfall, however, was significantly greater than the average for June and July (more than 2.5 times the average for July) but lower than average for August and September. In general, June and July were cloudier and rainier than normal, but August and September were sunnier and drier than normal. Figure 1 shows the minimum and maximum daily air temperatures for 1994.

TRIAL HIGHLIGHTS

Few cultivars received a rating of 4 or better in full sun, but those that did deserve consideration for use in Alabama landscapes. *Salvia coccinea* Lady in Red was the best-performing variety, with an average rating of 4.5. This exceptional plant performed well throughout the season, providing color and texture to the landscape. It reached a final height of approximately 33 inches, making it an ideal addition to most landscape sites. Another good performer was *Gomphrena* Rainbow Orange (4.3), the only gomphrena included. *Melampodium* Medallion, which

TABLE 1. AVERAGE DAILY SUNLIGHT, DAILY AIR TEMPERATURE, AND MONTHLY RAINFALL¹

Month	Avg. sunlight ²		Avg. temperature		Total Rainfall	
	1994	11-year	1994	30-year	1994	30-year
	W/m ²	W/m ²	°F	°F	In.	In.
June	5,232	5,919.8	78.4	75.8	6.98	4.10
July	5,340	5,737.8	78.0	78.7	12.29	4.71
August	5,567	5,280.5	77.7	78.4	2.50	4.18
September	4,925	4,631.4	72.8	74.1	2.07	3.63

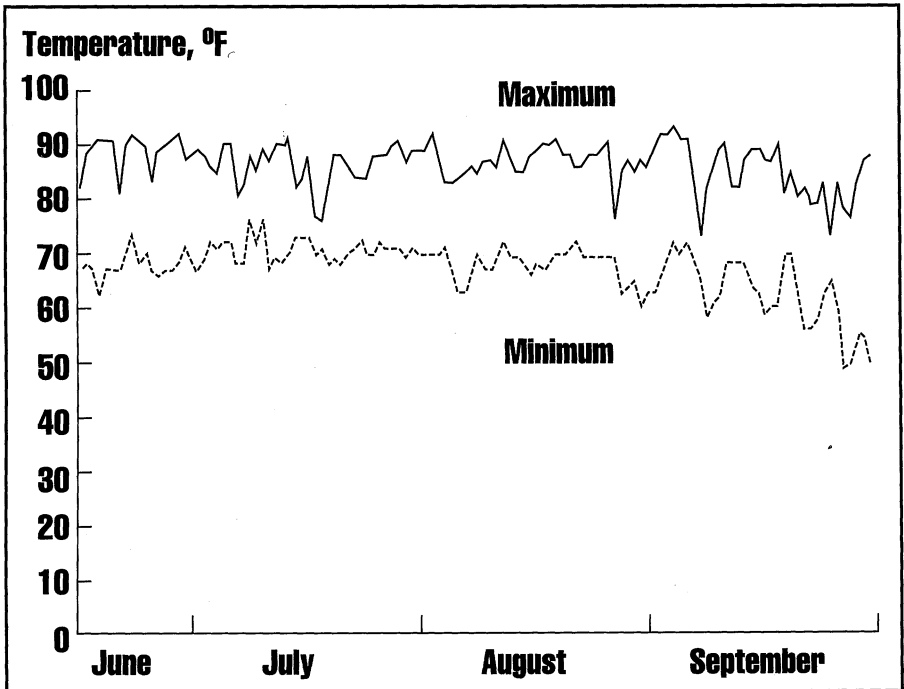
¹Data were provided by the National Weather Service at Auburn University.

²Sunlight, or solar radiation, is measured in watts per square meter.

also averaged 4.3, had showy, yellow, quarter-sized blooms all season. Verbena speciosa Imagination (4.2) was the best-performing verbena. Overall, vincas did well. Rose Cooler and Pretty in Rose were very good, both with a 4.3 average rating. Zinnia linearis Classic (4.1) was also a top performer.

Thirty marigold cultivars were evaluated. The best African marigold was Inca Gold (3.7). The best French marigold was Janie Flame (3.2).

Of 78 petunia cultivars, two outstanding performers were Primetime Pink (3.7) and Purple Wave (3.5). These selections were, by far, the best petunias in the trial. The AAS Winner, Celebrity Chiffon Morn, had only an average of 2.6 in this



trial. The best white was Butter Cream Carpet, which had an average of only 1.8 over the entire season. The Primetime series performed quite well, with the best salmon cultivar, Primetime Salmon Morn (3.3); best pink selection, Primetime Pink (3.7); best lavender selection, Primetime Lavender (2); and best mix, Primetime Mix (2.2). Ultra Scarlet tied Primetime Burgundy for the best red, with an average rating of 2.7. Of the rose cultivars, Madness Rose (2.6) had the highest average rating. Ultra Blue Vein (2.7) had the highest average rating of the blue cultivars.

All 63 impatiens cultivars performed well under 60% shade. Most received a season-long average rating of 4 or higher. The Impulse series had more colors that performed well than any other series. Impulse Lilac Blue (4.4) was the top lavender impatiens cultivar. The best white cultivar was Blitz 2000 White (4.5). Blitz 2000 Formula Mix had a superb average rating of 4.7. Of the orange cultivars, Tango (4.5) was the top performer. Blitz 2000 Pink (4.3) was the best pink cultivar. Of the red-flowering cultivars, Impulse Carmine (4.3) had the highest average rating. Rose-colored cultivars Blitz 2000 Rose Star, Accent Rose, Impulse Rose, and Tiara Rose all averaged 4.6, the highest rating. All salmon- and violet-colored impatiens had an average rating of 4.6.

Photographs below and on pages 11-15 illustrate many of the top-performing plants. Table 2 presents the height and overall rate of each flower in the trial (pages 5-10). Figures on pages 16-22 plot the ratings of selected cultivars throughout the June-September growing season.



Celosia Pink Candle
American Takii



Petunia Purple Wave
Pan American

TABLE 2. HEIGHT AND AVERAGE RATING FOR EACH FLOWER GROWN IN THE 1994 SUMMER TRIAL GARDEN

Genus & species	Variety	Source ¹	Height ²	Rating ³
Achillea	Summer Pastels	AAS	32	2.5
Ageratum	Blue Blanket	S&G	45	2.9
Canna	Tropical Rose	AAS	87	3.6
Celosia	Pink Candle	T	102	3.6
Celosia	Castle Pink	AAS	0	2.5
Celosia	Castle Scarlet	T	0	2.3
Celosia	Castle Yellow	T	0	3.0
Celosia	New Look	V	60	3.9
Celosia argentea plumosa	Miss Nippon Mixture	B	0	2.3
Celosia argentea plumosa	Miss Nippon Scarlet	B	39	3.2
Coleus	Vaughan's Rainbow Mix	V	91	3.7
Doronicum orientale	Goldcut	B	0	0
Gaillardia pulchella	Red Plume	S&G	35	3.3
Gazania splendens	Talent Gold	B	0	1.4
Gazania splendens	Talent Mix	B	0	0.1
Gomphrena	Rainbow Orange	V	69	4.3
Heliotrope	Mini Marine	V	0	1.2
Impatiens	Dazzler Sky Blue	BA	38	3.9
Impatiens	Accent Lavender Blue	G	44	3.8
Impatiens	Impulse Lilac Blue	S&G	58	4.4
Impatiens	Impulse Lilac	S&G	50	3.8
Impatiens	Accent Lilac	G	50	4.0
Impatiens	Impulse Formula Mix	S&G	60	4.2
Impatiens	Accent Mixture	G	53	3.9
Impatiens	Blitz 2000 Formula Mix	S&G	65	4.7
Impatiens	Accent Star Mixture	G	47	3.7
Impatiens	Accent Pastel Mixture	G	55	3.9
Impatiens	Impulse Orange Bicolour	S&G	52	3.9
Impatiens	Peach Swirl	PA	48	3.1
Impatiens	Mega Orange Star	G	51	3.7
Impatiens	Coral Swirl	PA	51	3.5
Impatiens	Accent Orange Star	G	49	3.5
Impatiens	Dazzler Orange	BA	46	3.7
Impatiens	Accent Coral	G	48	3.4
Impatiens	Impulse Orange	S&G	36	4.0
Impatiens	Dazzler Apricot	BA	40	3.6
Impatiens	Accent Apricot	G	56	4.2
Impatiens	Tango	AAS	91	4.5
Impatiens	Accent Orange	G	65	4.2

¹Seed sources: All-America Selections (AAS), American Takii (T), Benary (B), Ball (BA), Clause (C), Goldsmith (G), Pan American (PA), Sakata (SA), Sandhill Nursery (SN), Sluis & Groot (S&G), Vaughan (V), Waller (W), and Wright's (WR).

²Height is measured in centimeters; 10 cm equals approximately four inches.

³0 = plant death; 1 = small foliage display and no flowers; 2 = adequate foliage, no flowers or few buds; 3 = adequate to large foliage, relatively small floral display; 4 = sufficient foliage and flowers to be attractive in the landscape; and 5 = superior floral display and sufficient foliage display.

TABLE 2, CONTINUED. HEIGHT AND AVERAGE RATING FOR EACH FLOWER GROWN IN THE 1994 SUMMER TRIAL GARDEN

Genus & species	Variety	Source ¹	Height ²	Rating ³
Impatiens	Pink Swirl	PA	56	3.5
Impatiens	Impulse Pink Blush	S&G	56	3.6
Impatiens	Accent Bright Eye	G	52	3.7
Impatiens	Impulse Pink	S&G	56	3.5
Impatiens	Blitz 2000 Light Pink	S&G	61	3.8
Impatiens	Blitz 2000 Pink	S&G	62	4.3
Impatiens	Dazzler Punch	BA	48	3.8
Impatiens	Accent Pink	G	50	4.1
Impatiens	Impulse Appleblossom	S&G	60	3.8
Impatiens	Accent Deep Pink	G	57	4.1
Impatiens	Accent Burgundy Star	G	61	4.3
Impatiens	Accent Red Star	G	63	4.2
Impatiens	Impulse Carmine	S&G	62	4.3
Impatiens	Accent Red	G	50	3.4
Impatiens	Impulse Red	S&G	62	4.1
Impatiens	Accent Scarlet	G	61	4.1
Impatiens	Impulse Scarlet	S&G	54	4.2
Impatiens	Blitz 2000 Red	S&G	55	3.8
Impatiens	Accent Carmine	G	62	4.1
Impatiens	Accent Rose Star	G	62	4.4
Impatiens	Blitz 2000 Rose Star	S&G	75	4.6
Impatiens	Accent Rose	G	62	4.6
Impatiens	Impulse Rose	S&G	60	4.6
Impatiens	Dazzler Rose	BA	60	4.3
Impatiens	Blitz 2000 Rose	S&G	73	4.5
Impatiens	Tiara Rose	C	70	4.6
Impatiens	Accent Salmon	G	72	4.6
Impatiens	Blitz 2000 Salmon	S&G	81	4.6
Impatiens	Impulse Salmon Orange	S&G	60	4.6
Impatiens	Impulse Salmon	S&G	63	4.6
Impatiens	Impulse Salmon Rose	S&G	62	4.6
Impatiens	Accent Violet Star	G	78	4.6
Impatiens	Impulse Violet	S&G	77	4.6
Impatiens	Accent Violet	G	72	4.6
Impatiens	Blitz 2000 Violet	S&G	81	4.6
Impatiens	Impulse Bright Eye	S&G	70	4.6
Impatiens	Showstopper Cherry Flair	BA	51	4.3
Impatiens	Dazzler Bright Eye	BA	47	4.4
Impatiens	Accent White	G	41	4.1
Impatiens	Impulse White	S&G	49	4.5
Impatiens	Blitz 2000 White	S&G	59	4.5
Impatiens	Lavender Lady	AAS	0	0.3
Lobelia				
erinus compacta	Blue Moon	S&G	0	2.1
Melampodium				
paludosum	Medallion	S&G	84	4.3

¹Seed sources: All-America Selections (AAS), American Takii (T), Benary (B), Ball (BA), Clause (C), Goldsmith (G), Pan American (PA), Sakata (SA), Sandhill Nursery (SN), Sluis & Groot (S&G), Vaughan (V), Waller (W), and Wright's (WR).

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TABLE 2, CONTINUED. HEIGHT AND AVERAGE RATING FOR EACH FLOWER GROWN IN THE 1994 SUMMER TRIAL GARDEN

Genus & species	Variety	Source ¹	Height ²	Rating ³
Nierembergia	Mont Blanc	AAS	15	2.0
Marigold	Perfection Gold	G	0	3.5
Marigold	Excel Gold	G	0	2.7
Marigold	Inca Gold	G	0	3.7
Marigold	Excel Orange	G	37	1.9
Marigold	Perfection Orange	G	0	2.1
Marigold	Inca Orange	G	0	2.2
Marigold	Excel Primrose	G	35	2.4
Marigold	Inca Yellow	G	0	2.4
Marigold	Excel Yellow	G	0	2.6
Marigold	Perfection Yellow	G	64	3.3
Marigold	Aurora Mixture	G	37	2.8
Marigold	Janie Mixture	G	37	2.3
Marigold	Aurora Orange	G	0	2.5
Marigold	Janie Deep Orange	G	32	2.9
Marigold	Janie Primrose	G	0	2.7
Marigold	Aurora Red	G	36	2.9
Marigold	Aurora Fire	G	34	2.6
Marigold	Janie Flame	G	34	3.2
Marigold	Janie Harmony	G	34	2.8
Marigold	Janie Bright Yellow	G	30	3.0
Marigold	Aurora Gold	G	36	2.9
Marigold	Aurora Yellow Fire	G	0	2.8
Marigold	Aurora Light Yellow	G	36	3.1
Marigold	Janie Spry	G	30	2.4
Marigold	Zenith Mix	C	32	2.2
Marigold	Zenith Red and Gold	C	29	2.6
Marigold	Antigua Gold	G	42	0
Marigold	Antigua Mix	G	47	2.9
Marigold	Antigua Orange	G	38	2.9
Marigold	Antigua Yellow	G	37	3.0
Petunia	Spring Fever White	V	0	1.6
Petunia	Primetime White	G	0	1.4
Petunia	Butter Cream Carpet	PA	0	1.8
Petunia	Celebrity Chiffon Morn	AAS	26	2.6
Petunia	White Flash	S&G	0	1.3
Petunia	Ultra White	G	0	1.2
Petunia	Rose/White Flash	S&G	0	1.7
Petunia	Primetime Rose Star	G	0	2.2
Petunia	Madness Rose	BA	27	2.6
Petunia	Double Madness Rose	BA	0	1.8
Petunia	Primetime Rose	G	25	2.3
Petunia	Rose Carpet	PA	21	1.9
Petunia	Primetime Rose Frost	G	0	1.7
Petunia	Spring Fever Rose	V	27	2.5
Petunia	Rose Flash	S&G	0	2.5

¹Seed sources: All-America Selections (AAS), American Takii (T), Benary (B), Ball (BA), Clause (C), Goldsmith (G), Pan American (PA), Sakata (SA), Sandhill Nursery (SN), Sluis & Groot (S&G), Vaughan (V), Waller (W), and Wright's (WR).

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TABLE 2, CONTINUED. HEIGHT AND AVERAGE RATING FOR EACH FLOWER GROWN IN THE 1994 SUMMER TRIAL GARDEN

Genus & species	Variety	Source ¹	Height ²	Rating ³
Petunia	Ultra Rose	G	28	2.5
Petunia	Ultra Rose Star	G	0	1.7
Petunia	Polo Salmon	AAS	0	2.1
Petunia	Primetime Salmon Morn	G	0	3.3
Petunia	Primetime Salmon	G	0	2.8
Petunia	Spring Fever Salmon	V	0	2.5
Petunia	Coral Flash	S&G	0	2.7
Petunia	Salmon Flash	S&G	0	2.6
Petunia	Ultra Salmon	G	23	2.9
Petunia	Primetime Burgundy	G	0	2.7
Petunia	Primetime Red Frost	G	0	1.4
Petunia	Primetime Carmine	G	0	2.4
Petunia	Ultra Scarlet	G	27	2.7
Petunia	Primetime Red Star	G	0	1.2
Petunia	Primetime Red Vein	G	0	2.4
Petunia	Primetime Red	G	0	1.5
Petunia	Primetime Scarlet	G	0	2.6
Petunia	Primetime Burgundy Star	G	0	3.0
Petunia	Ultra Peppermint	G	19	3.2
Petunia	Red Flash	S&G	23	3.1
Petunia	Ultra Crimson Star	G	0	1.8
Petunia	Ultra Red	G	0	2.3
Petunia	Ultra Red Star	G	0	2.6
Petunia	Cherry Frost	G	0	3.0
Petunia	Ultra Burgundy	G	19	2.3
Petunia	Purple White Flash	S&G	0	2.8
Petunia	Velvet Carpet	PA	18	3.3
Petunia	Purple Wave	PA	16	3.5
Petunia	Ultra Plum	G	0	2.0
Petunia	Velvet Flash	S&G	0	1.5
Petunia	Summer Madness	BA	0	0
Petunia	Double Madness Sheer	BA	0	2.6
Petunia	Primetime Pink Veined	G	20	3.3
Petunia	Ultra Light Pink Vein	G	15	2.5
Petunia	Primetime Pink Morn	G	0	3.1
Petunia	Primetime Light Pink Veined	G	22	3.3
Petunia	Primetime Pink	G	22	3.7
Petunia	Pink Flash	S&G	0	3.2
Petunia	Pink Centre Flash	S&G	0	2.5
Petunia	Ultra Pink	G	0	2.1
Petunia	Polo Formula Mix	S&G	0	2.0
Petunia	Primetime Mixture	G	0	2.2
Petunia	Flash Formula Mix	S&G	0	2.1
Petunia	Ultra Mixture	G	0	1.8
Petunia	Madness Orchid	BA	0	1.6
Petunia	Lilac Carpet	PA	0	1.6

¹Seed sources: All-America Selections (AAS), American Takii (T), Benary (B), Ball (BA), Clause (C), Goldsmith (G), Pan American (PA), Sakata (SA), Sandhill Nursery (SN), Sluis & Groot (S&G), Vaughan (V), Waller (W), and Wright's (WR).

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Genus & species	Variety	Source ¹	Height ²	Rating ³
Petunia	Madness Lilac	BA	0	1.8
Petunia	Primetime Lavender	G	0	2.0
Petunia	Falcon	SA	20	1.6
Petunia	Polo Burgundy Star	AAS	21	1.9
Petunia	Blue/White Flash	S&G	0	1.4
Petunia	True Blue	PA	0	1.6
Petunia	Primetime Blue	G	0	1.5
Petunia	Primetime Plum	G	24	1.5
Petunia	Sky Blue Carpet	PA	0	1.0
Petunia	Spring Fever Blue	V	0	1.3
Petunia	Ultra Blue	G	0	1.5
Petunia	Primetime Mid Blue	G	0	2.2
Petunia	Blue Carpet	PA	0	1.5
Petunia	Blue Flash	S&G	0	1.7
Petunia	Ultra Sky Blue	G	0	1.5
Petunia	Ultra Blue Vein	G	0	2.7
Petunia	Ultra Blue Star	G	0	2.4
Salvia farinacea	Renaissance	S&G	47	4.1
Salvia coccinea	Lady In Red	AAS	83	4.5
Salvia	Cover Girl	B	39	4.2
Salvia	Fuego	S&G	39	4.3
Salvia	Bonfire Elite	V	64	4.3
Salvia	Rambo	V	0	3.1
Salvia	Grenadier	V	40	3.4
Salvia	Maestro	V	0	1.8
Salvia	Hot Stuff Red	V	34	3.6
Salvia	Hot Stuff Rose	V	33	2.5
Salvia	Hot Stuff Salmon	V	29	2.6
Salvia	Hot Stuff Violet	V	45	3.4
Salvia	Hot Stuff White	V	38	2.6
Phlox drummondii	Palona Formula Mix	S&G	0	0
Rudbeckia hirta	Toto	B	0	0.8
Rudbeckia hirta	Indian Summer	AAS	46	3.5
Rudbeckia	Becky Mix	T	0	1.2
Sunflower	Sunrich Orange	T	0	0
Sunflower	Sunrich Lemon	T	0	0.3
Sunflower	Sonja	B	0	0.3
Verbena	Amour Mixture	G	0	1.7
Verbena	Valentine Light Blue	BA	14	2.2
Verbena	Exp. Lit. Pink	BA	9	1.3
Verbena	Royal Valentine	BA	11	1.5

¹Seed sources: All-America Selections (AAS), American Takii (T), Benary (B), Ball (BA), Clause (C), Goldsmith (G), Pan American (PA), Sakata (SA), Sandhill Nursery (SN), Sluis & Groot (S&G), Vaughan (V), Waller (W), and Wright's (WR).

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TABLE 2, CONTINUED. HEIGHT AND AVERAGE RATING FOR EACH FLOWER GROWN IN THE 1994 SUMMER TRIAL GARDEN

Genus & species	Variety	Source ¹	Height ²	Rating ³
Verbena	Peaches & Cream	AAS	0	0.8
Verbena hybrida	Novalis Deep Blue With Eye	B	14	1.6
Verbena hybrida	Novalis Mix	B	0	1.4
Verbena hybrida	Romance Formula Mix	S&G	8	1.2
Verbena hybrida	Novalis Rosyred With Eye	B	0	0.7
Verbena hybrida	Novalis Rose With Eye	B	0	1.1
Verbena hybrida	Novalis Brilliant Rose	B	0	1.3
Verbena hybrida	Novalis Bright Scarlet	B	0	1.1
Verbena hybrida	Novalis White	B	16	1.9
Verbena x speciosa	Imagination	AAS	37	4.2
Vinca	Parasol	AAS	59	3.6
Vinca	Apricot Delight	W	34	3.4
Vinca	Tropicana White	W	33	3.8
Vinca	Pacifica Red	W	38	3.6
Vinca	Pacifica Punch	W	51	3.8
Vinca	Pacifica Polka Dot	W	46	3.7
Vinca	Blush Cooler	WR	0	0
Vinca	Peppermint Cooler	WR	0	0
Vinca	Grape Cooler	WR	0	0
Vinca	Icy Pink Cooler	PA	56	3.7
Vinca	Pink Cooler	PA	56	3.5
Vinca	Rose Cooler	PA	48	4.3
Vinca	Pretty In Rose	AAS	58	4.3
Zinnia	Dreamland Mix	T	0	2.7
Zinnia	Peter Pan Mixture	G	0	2.5
Zinnia	Short Stuff Mixture	G	0	2.0
Zinnia	Scarlet Splendor	AAS	0	1.7
Zinnia	Short Stuff Deep Red	BA	0	0.8
Zinnia	Short Stuff Scarlet	BA	0	1.2
Zinnia	Short Stuff Gold	BA	0	2.2
Zinnia	Short Stuff White	BA	0	1.8
Zinnia	White Star	V	48	3.8
Zinnia	Short Stuff Coral	BA	25	2.6
Zinnia	Short Stuff Orange	BA	0	2.1
Zinnia	Linearis Classic	V	51	4.1

¹Seed sources: All-America Selections (AAS), American Takii (T), Benary (B), Ball (BA), Clause (C), Goldsmith (G), Pan American (PA), Sakata (SA), Sandhill Nursery (SN), Sluis & Groot (S&G), Vaughan (V), Waller (W), and Wright's (WR).

²Height is measured in centimeters; 10 cm equals approximately four inches.

³0 = plant death; 1 = small foliage display and no flowers; 2 = adequate foliage, no flowers or few buds; 3 = adequate to large foliage, relatively small floral display; 4 = sufficient foliage and flowers to be attractive in the landscape; and 5 = superior floral display and sufficient foliage display.



Melampodium Medallion
Sluis & Groot



Salvia Lady in Red
All-America Selections



Vinca Rose Cooler
Pan American



Impatiens Impulse Salmon Rose
Sluis & Groot



**Marigold Janie Flame (French)
Goldsmith**



**Marigold Inca Gold (African)
Goldsmith**



**Impatiens Tango
All-America Selections**



**Petunia Primetime Pink
Goldsmith**



**Petunia Primetime Salmon
Goldsmith**



**Petunia Primetime Scarlet
Goldsmith**



**Petunia Primetime Mixture
Goldsmith**



**Petunia Primetime Lavender
Goldsmith**



**Petunia Ultra Blue Vein
Goldsmith**



**Impatiens Accent Rose
Goldsmith**



**Impatiens Blitz 2000 Mix
Sluis & Groot**



**Impatiens Impulse Lilac Blue
Sluis & Groot**



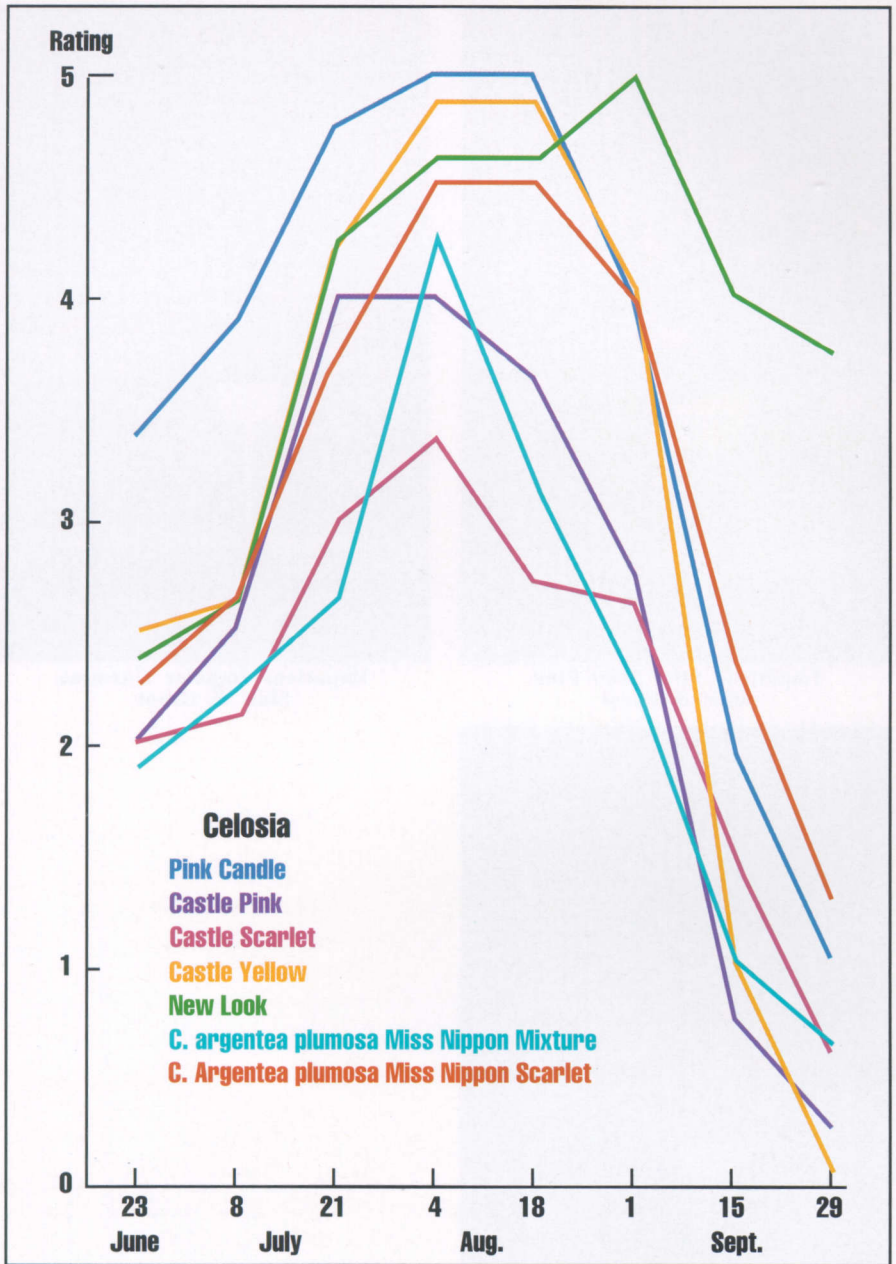
Impatiens Blitz 2000 Pink
Sluis & Groot



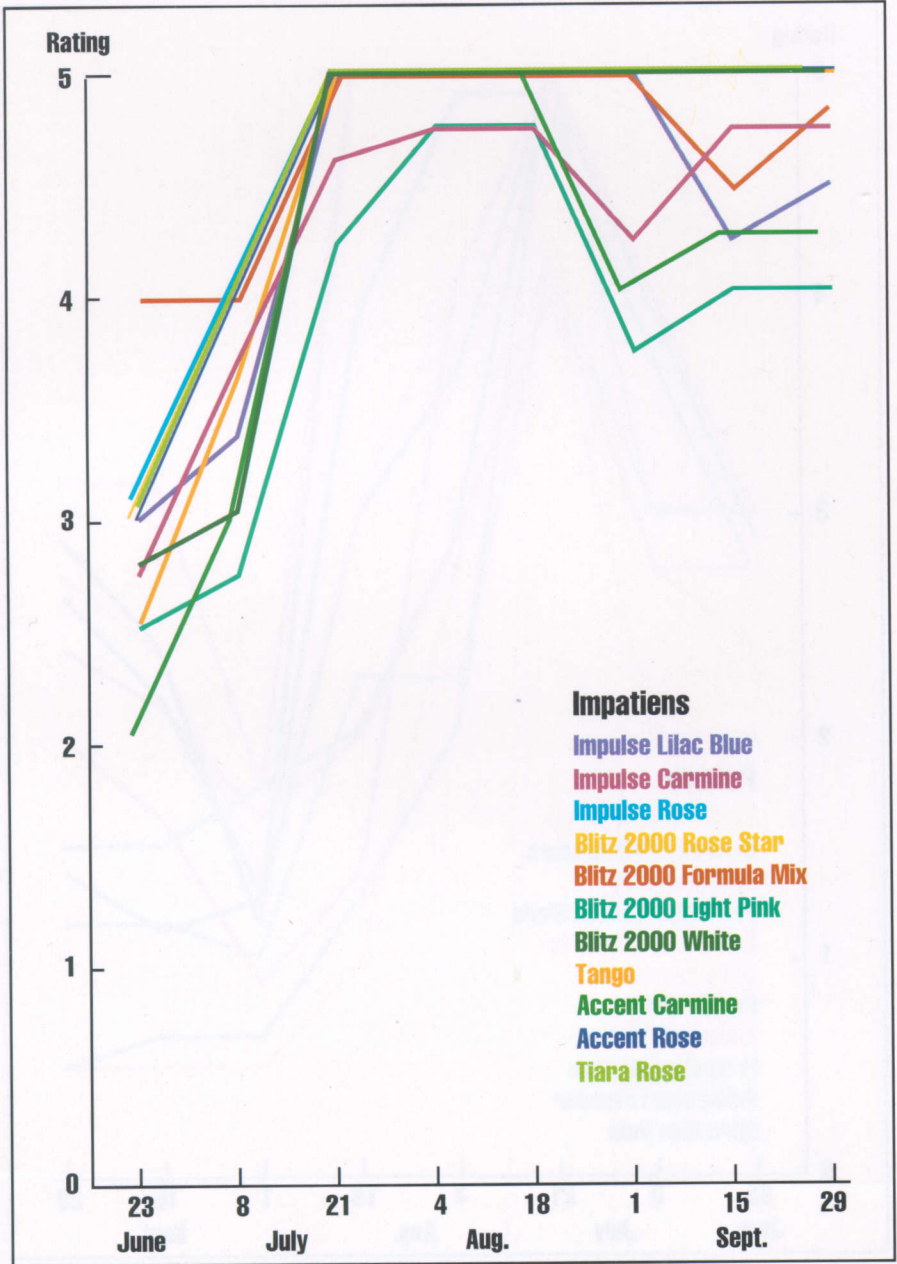
Impatiens Impulse Carmine
Sluis & Groot



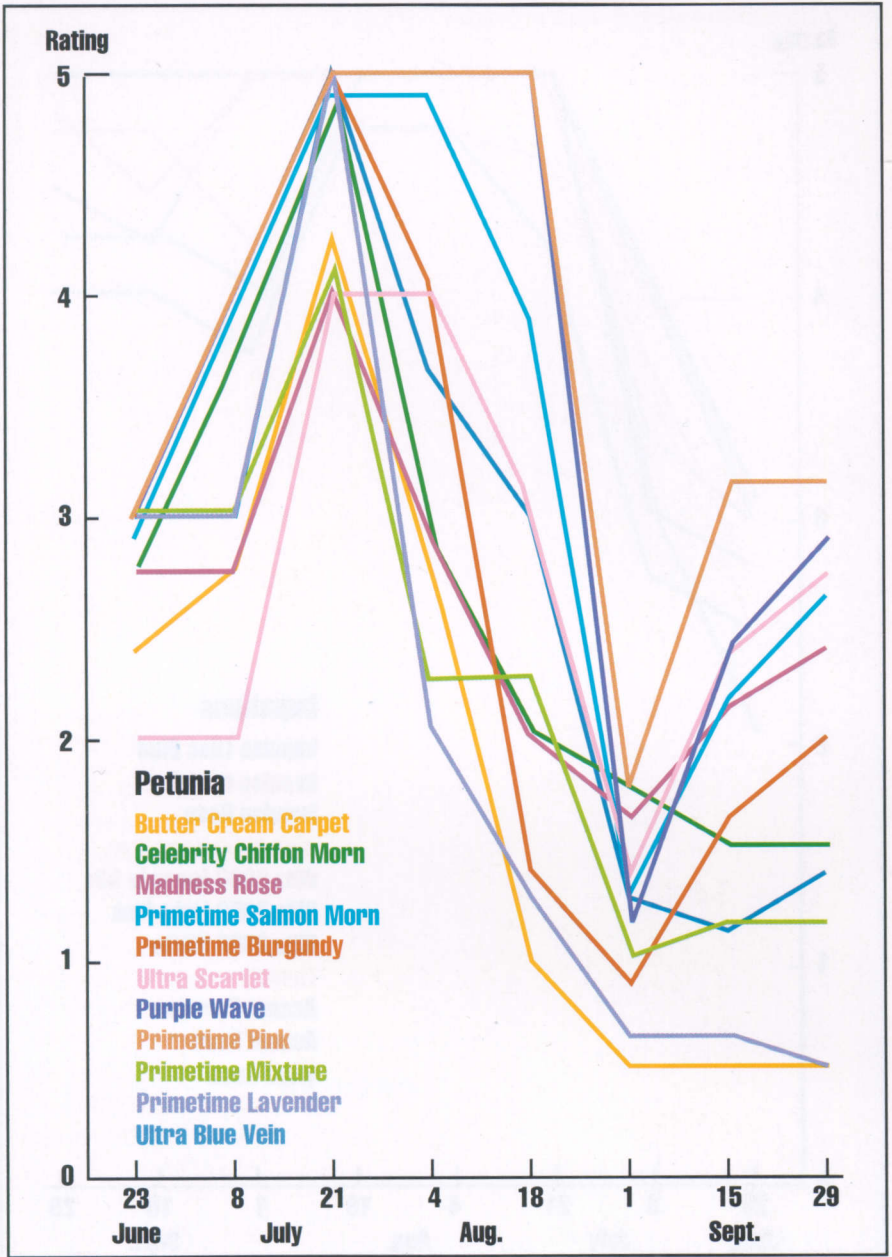
Impatiens Impulse Salmon Orange
Sluis & Groot



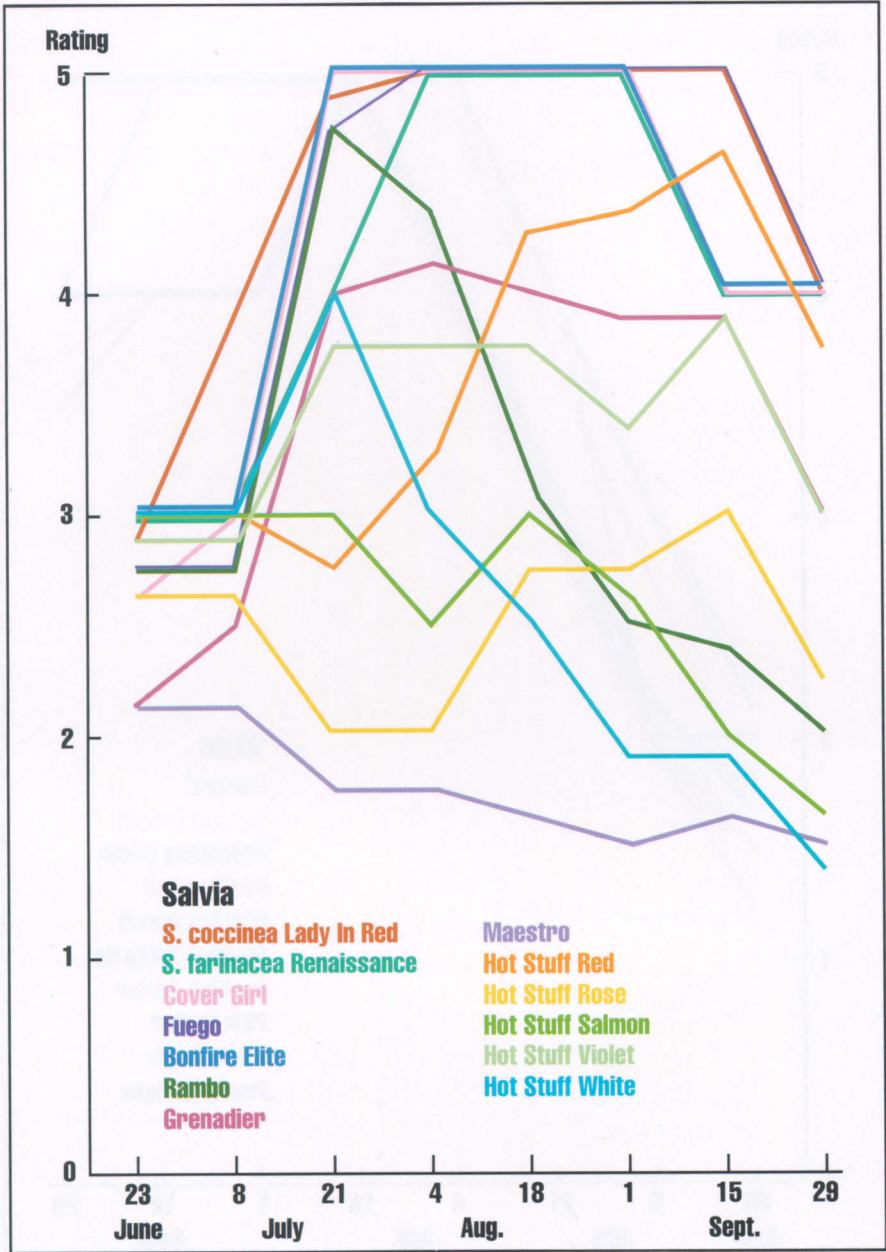
A rating of 1 indicated a small display of foliage with no flowers present; 2 -- adequate amount of foliage with no flowers or few buds showing; 3 -- large amount of foliage and a relatively small floral display; 4 -- sufficient foliage and floral display to be attractive in the landscape; and 5 -- superior floral display and sufficient foliage display. A rating of 0 indicated the plant had died. Ratings were made in whole number units. Display was considered to be the size and color of the leaves.



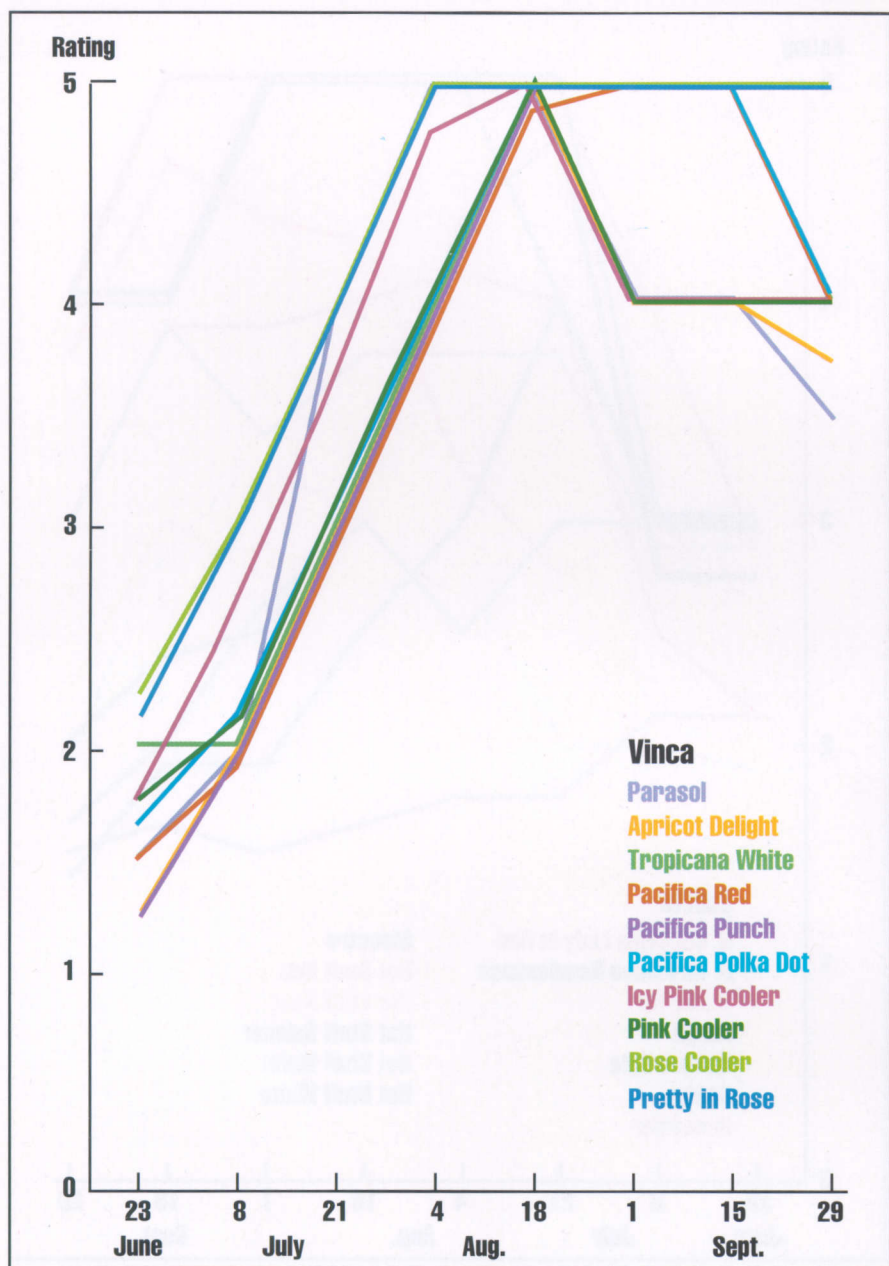
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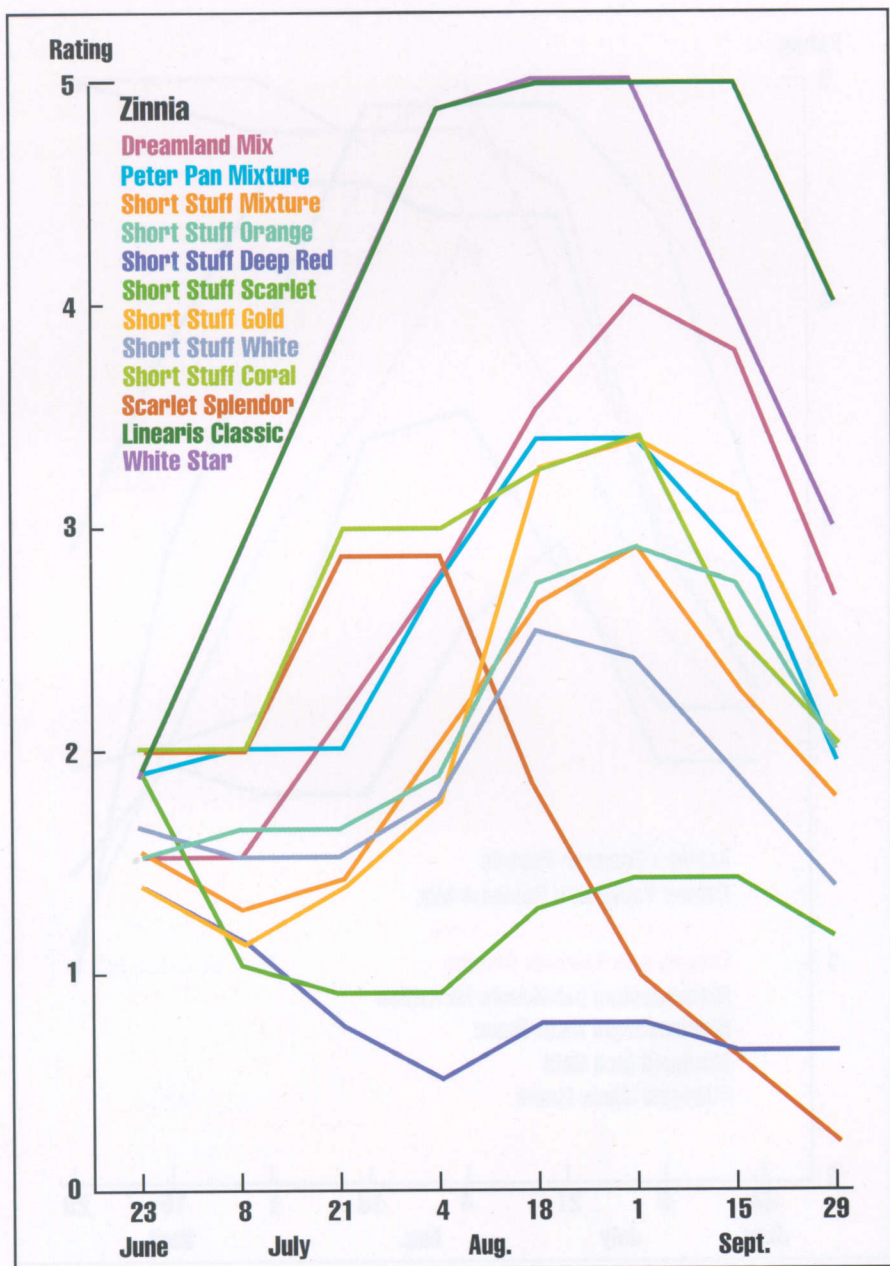
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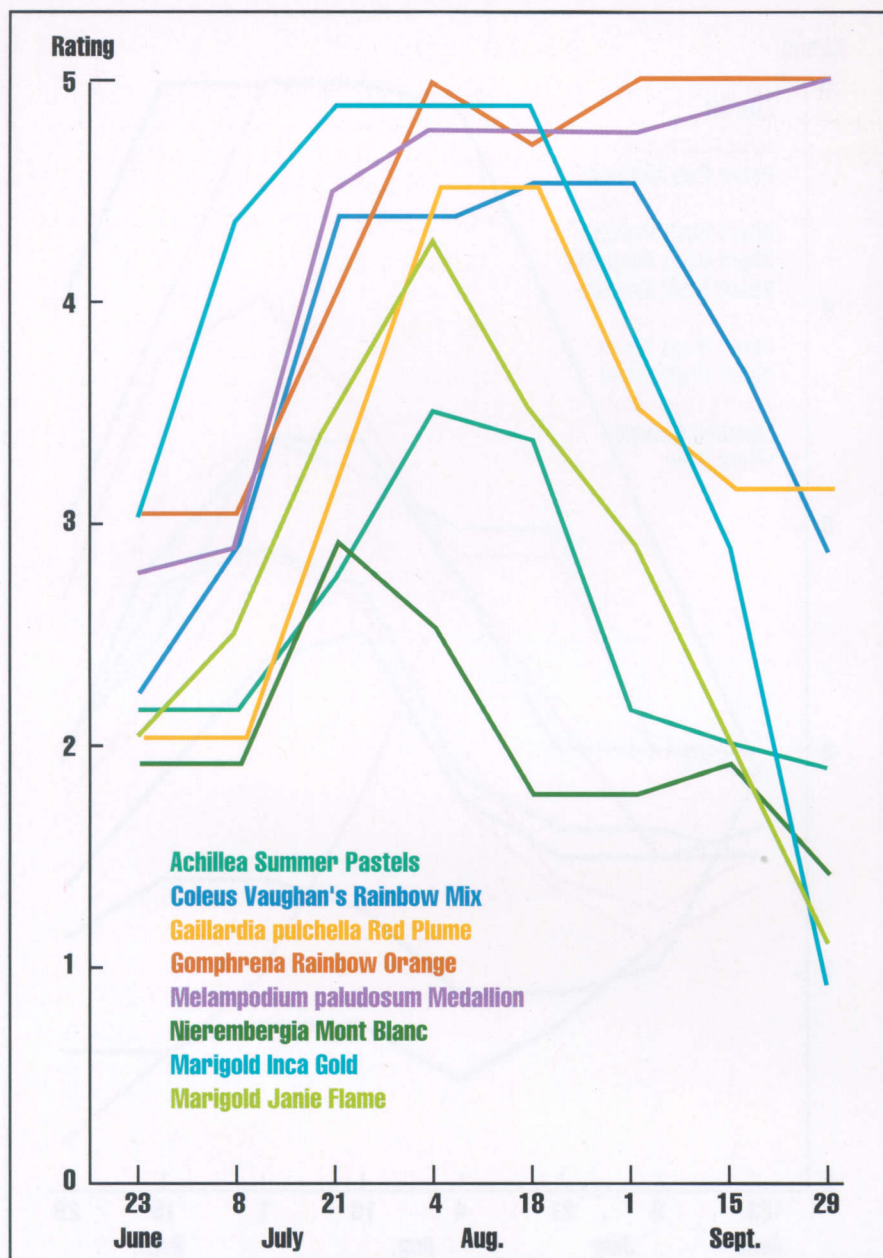
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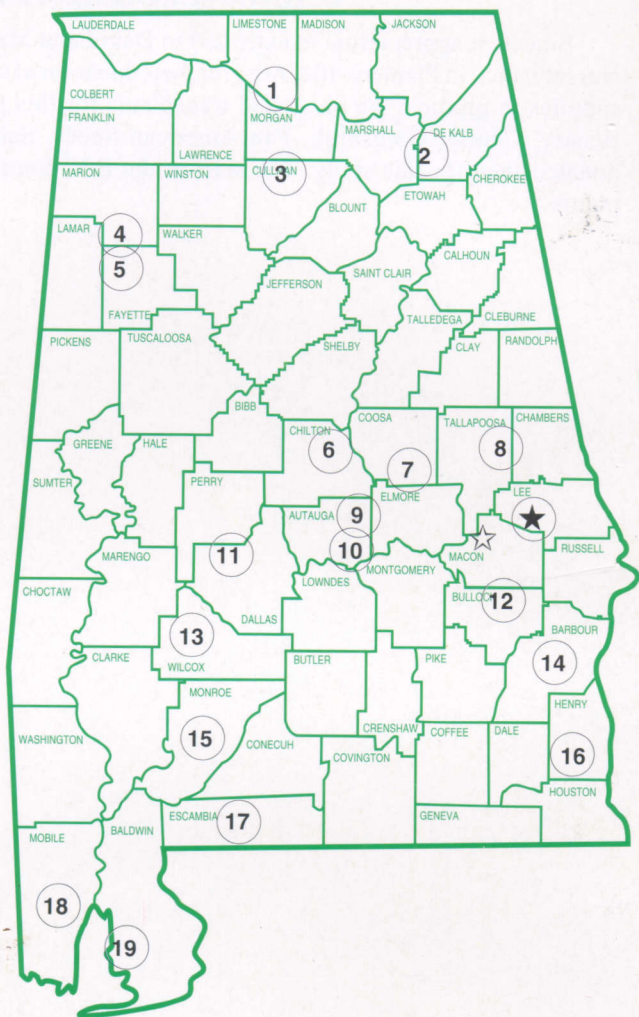
ACKNOWLEDGMENTS

Sincerest appreciation is extended to David and Martha Wright of Wright's Nursery, Inc., in Plantersville, Ala., for their donation of time, talent, facilities, and supplies to produce the plugs and transplants for this project. American Takii, Benary, Clause, Goldsmith, Pan American Seeds, Sakata, and Sluis & Groot donated seed for this study. The staff at the E.V. Smith Research Center rated plants.

Alabama's Agricultural Experiment Station System

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.
- ☆ E. V. Smith Research Center, Shorter.

- | | |
|----------------------------------------------------|------------------------------------------------------|
| 1. Tennessee Valley Substation, Belle Mina. | 11. Black Belt Substation, Marion Junction. |
| 2. Sand Mountain Substation, Crossville. | 12. The Turnipseed-Ikenberry Place, Union Springs. |
| 3. North Alabama Horticulture Substation, Cullman. | 13. Lower Coastal Plain Substation, Camden. |
| 4. Upper Coastal Plain Substation, Winfield. | 14. Forestry Unit, Barbour County. |
| 5. Forestry Unit, Fayette County. | 15. Monroeville Experiment Field, Monroeville. |
| 6. Chilton Area Horticulture Substation, Clanton. | 16. Wiregrass Substation, Headland. |
| 7. Forestry Unit, Coosa County. | 17. Brewton Experiment Field, Brewton. |
| 8. Piedmont Substation, Camp Hill. | 18. Ornamental Horticulture Substation, Spring Hill. |
| 9. Forestry Unit, Autauga County. | 19. Gulf Coast Substation, Fairhope. |
| 10. Prattville Experiment Field, Prattville. | |