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1997 SUMMER BEDDING PLANT TRIAL SUMMARY

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(Readers interested in the full report should contact Doug Bailey at 919.515.1195 [FAX 919.515.7747] and request Horticulture Research Series Number 127; or you can download a version from the NC State University Floriculture website at <http://www2.ncsu.edu/floriculture/>)

Over 450 entries of annual and perennial plants were evaluated during the 1997 bedding plant season at test gardens in Raleigh, North Carolina. The trial gardens are used each year to evaluate bedding plants for landscaper and home owner use.

The trial gardens are located at the Horticulture Field Lab, 4301 Beryl Road, in Raleigh. The site is located on latitude 35°47'N, longitude 78°42'W with an elevation of 400 feet. Transplants were grown in 2.5 inch × 2.2 inch containers, and most were planted in the trial garden on 13 May 1997. A few slower selections were planted when ready. Plant spacing in the trials was 18 inches × 24 inches (in-row × between-row spacing). Seven plants of each entry were used to evaluate the performance of the cultivars with the exception of All America Selections judged entries, which had 14 plants each.

All plants were grown in full sun except for begonias, hypoestes, impatiens, New Guinea

impatiens, setcreasea, and tuberous begonias; these were grown under 55% shade. When needed, water was applied using overhead irrigation.

Temperatures were cooler than normal during May and June and very close -- slightly above in July and slightly below during August and September-- to average for the remainder of the summer season (Table 1, Figure 1). Looking at the entire 5-month season, temperatures were moderate and averaged about 1.5% below normal (73 °F average daily temperature).

Rainfall received during the 5-month period (15.8 inches) was below our average of 21.2 inches (Table 1 and Figure 2) and much below of record 35.3 inches of rainfall during the 1996 season. May was much dryer than average; June and July rainfall was above average. August and September were well below average for rainfall.

Beds were pretreated with Basamid® for weed control prior to planting. Fertilizer was applied as a preplant incorporation and as dry applications during the bedding plant season. No insecticide

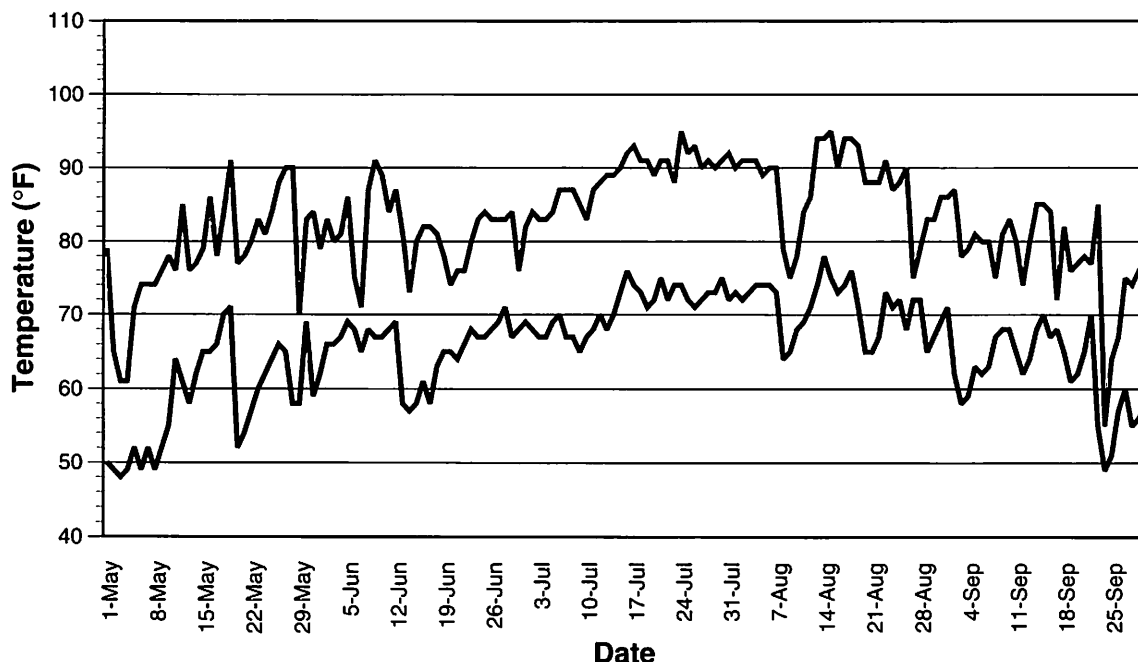


Figure 1. Daily minimum and maximum temperatures for Raleigh, N.C. from 1 May 1 through 30 Sept. 1997.

applications were made during the evaluation in order to document major pest problems. No major pests were noted during the 1997 season, however the Japanese beetle population seems to increase every year in the gardens. Plant diseases were less prevalent in 1996 than in 1995. The major disease problems included Botrytis blight and bacterial leaf spot on geraniums.

Plants were given a visual rating by the same individual once a week beginning 4 June 1997,

three weeks after planting through 19 weeks after planting; the final evaluation date was 24 September 1997. The rating was based on plant performance and appearance, including floriferousness, plant size and shape, and freedom from insect and disease problems. The rating scale used ranged from 1 (very poor) to 5 (excellent), with 0.5 unit increments; a 0 rating was given if all seven plants of the cultivar died. Weekly ratings were averaged to provide an

Table 1. Solar energy, temperature and precipitation from May through September 1997 and 30 year temperature and precipitation averages for Raleigh, N.C.

Month	Daily average solar radiation received (Langley's/day)	Daily average temperature (°F) and percent change from 30 year avg	30 year average daily temperature (°F)	Monthly precipitation (inches) and percent change from 30 year avg	30 year average monthly precipitation (inches)
May	561	65.0 (-5%)	68.1	2.39 (-43%)	4.22
June	457	71.9 (-4%)	74.9	4.76 (+28%)	3.73
July	499	79.6 (+1%)	78.8	5.63 (+16%)	4.84
August	526	77.0 (-1%)	78.0	0.92 (-80%)	4.52
September	391	71.3 (-1%)	72.1	2.09 (-46%)	3.85

overall rating for the entire season. We used the seasonal average ratings to select the N.C. State Leaders of the Pack and the NCSU Exceptional Performance Winners.

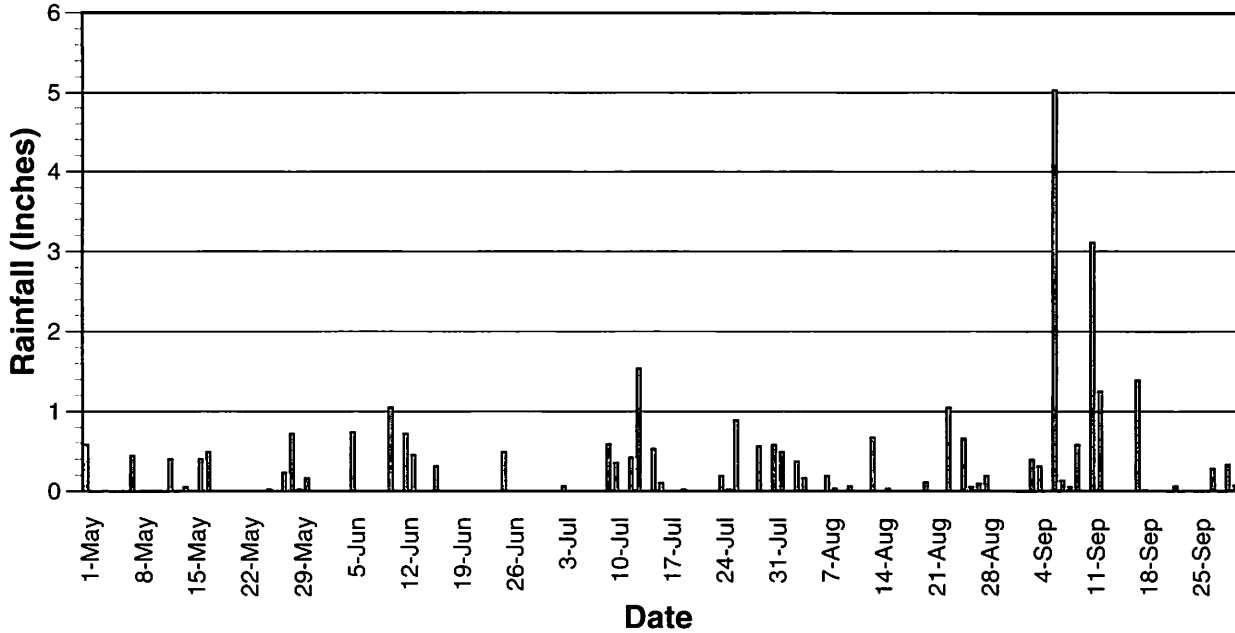


Figure 2. Rainfall received from May 1 through September 30, 1997.

Sources of Seeds and Plants

The following companies graciously sponsored the 1997 trial gardens. The companies are acknowledged in the ratings table and in the listings by the abbreviation that appears to the left of the company name. Appreciation is also given to Fafard, Inc. and to the North Carolina Commercial Flower Growers' Association for their contributions towards the trials.

- **AAS** All-America Selections, 1311 Butterfield Road, Suite 310, Downers Grove, IL 60515
- **BALL** Ball Seed Co., P.O. Box 335, West Chicago, IL 60185
- **BEN** Ernst Benary of America, Inc., 1444 Larson Street, Sycamore, IL 60178
- **BG** Bodger Seeds Ltd., 1800 North Tyler Avenue, Lompoc, CA 91733 3618
- **BWN** Berylwood Nursery, Inc., P.O. Box 2, Lexington, NC 27293-0002
- **DHN** Dæhnfeldt Inc., P.O. Box 947, Albany, OR 97321 98664
- **ECKE** Paul Ecke Ranch, P.O. Box 230488, Encinitas, CA 92023-0488
- **FIS** Fischer USA, Inc., 2955 Balmont Road Suite 110, Boulder, CO 80301
- **GOLD** Goldsmith Seeds, Inc., P.O. Box 1349, Gilroy, CA 95020
- **MI** Henry F. Michell Company, P.O. Box 60160, King of Prussia, PA 19406-0160
- **NCSU** Department of Horticultural Science, Box 7609, North Carolina State University
- **NOV** Novartis Flower Seeds, Inc., 5300 Katrine Avenue, Downers Grove, IL 60515-4095
- **OGL** Oglevee, Ltd., 152 Oglevee Lane, Connellsville, PA 15425
- **PA** PanAmerican Seed Co., P.O. Box 438, West Chicago, IL 60185
- **SAK** Sakata Seed America, Inc., 105 Boronda Road, Salinas, CA 93907