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1978

VARIETY

TRIAL

REPORT

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and

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ACKNOWLEDGMENTS

The authors wish to thank the many individuals who assisted with the planning, seeding, transplanting, maintenance, and data collection of the 1978 variety trials. Special thanks are due the seed producers and distributors that donated seeds and supplies. Trade and brand names are used only for the purpose of information, and the Virginia Cooperative Extension Service does not guarantee nor warrant the standard of the product, nor does it imply approval of the product to the exclusion of others which may also be suitable.

BLACKSBURG TRIALS

In charge: Dr. A. J. Lewis III
Department of Horticulture
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

The Horticulture Department's Variety Trial Garden is situated on the campus of Virginia Polytechnic Institute and State University. The campus lies on a plain between the Blue Ridge and Allegheny Mountains, 2100 feet above sea level. The frost-free growing season of approximately 135 days is characterized by warm days and cool nights. Average annual rainfall is 38 inches (96 cm). The garden is an official All-America Selections Flower Trial Garden.

The garden covers approximately 2 acres (.8 hectares), and consists of 18 rectangular beds 4 feet (1.2 m) wide and 100 feet (30 m) long separated by wide grass strips. The soil is a clay loam amended with rotted sawdust. Prior to planting, a slow release form of 18-12-14* was incorporated at the rate of 10 pounds per 1000 square feet (4.5 kg/93 sq m) and the beds were mulched with aged sawdust. Mid-way through the growing season, another broadcast application of 18-12-14 was applied at the same rate.

The small-seeded varieties were sown in flats in early March and later transplanted to peat strips. The large-seeded varieties were direct seeded in peat strips in early April. All plants were set in the garden the week of May 15. The plants were watered in and then spot watered as necessary until established. Adequate rainfall occurred throughout the season such that it was only necessary to irrigate infrequently.

The beds were edged with Paraquat to prevent invasion of weeds; interior weeding was done by hand. The garden was sprayed several times with Sevin to control a severe infestation of Japanese beetles, and occasionally with Benomyl and Diazinon as preventive sprays.

Data was taken as close to bloom as possible. Information recorded for each variety includes: trial number, plant name, variety, seed source (see code), identification or control number, height (cm), height range (cm), average spread (cm), flower size (cm), color (see code), disease incidence, performance rating, and comments. All plants were set on 12 inch (30 cm) centers; spread was recorded as "M" (massed) if plants had grown together. Flower size refers to flower or floret diameter or spike length accordingly unless otherwise noted. Disease incidence ratings were based on the following scale: 0 = none, 1 = minor, 2 = moderate, 3 = extensive. Performance ratings were based on the following scale: 0 = died, 1 = poor, 2 = fair, 3 = good, 4 = excellent.

*Provided by O. M. Scott & Sons, Marysville, Ohio

1978 SEED SOURCE CODE

SOURCE

AA ALL-AMERICA SELECTIONS, 4546 EL CAMINO REAL, SUITE A, LOS ALTOS, CA
BP W. ATLEE BURPEE CO., FORDHOOK FARMS, DOYLESTOWN, PA 18901
BR BUDGER SEEDS LTD., P.O.BOX 5090, EL MONTE, CA 91734
BY ERNEST BENARY, POSTFACH 109, 351-HANN MUENDEN, W. GERMANY
CL L. CLAUSE, S. A., AVENUE LUCIEN CLAUSE, 91220 BRÉTIGNY-SUR-URGE, FR
CG CHARLES GABORIAU, BOITE POSTAL 49, 64200 BIARRITZ, FRANCE
DH DENHOLM SEEDS, P.O.BOX 1381, LUMPAC, CA 93436
GS GOLDSMITH SEEDS, P.O.BOX 1349, GILROY, CA 95020
HA JOSEPH HARRIS CO., 3670 BUFFALO ROAD, ROCHESTER, NY 14624
PK GEO. W. PARK SEED CO., P.O.BOX 31, GREENWOOD, SC 29647
RS RUYAL SLUIS, P.O.BOX 22, ENKHUIZEN, NETHERLANDS, 1940
TK TAKII & CO., P.O.BOX 7 KYOTO CENTRAL, KYOTO, JAPAN, 600

1978 COLOR CODE

COLOR

BL	BLUE
BG	BURGUNDY
BR	BRONZE
CM	CREAM
CR	CHERRY-RED
CS	CRIMSON
CU	CHARTREUSE
DB	DARK-BLUE
GD	GOLD
LB	LAVENDER-BLUE
LP	LIGHT-PINK
MR	MAHOGANY-RED
MX	MIXED COLORS
OC	ORCHID
OG	ORANGE
UP	ORCHID-PURPLE
US	ORANGE-SCARLET
PK	PINK
PP	PLUM-PINK
PR	PRIMROSE
PM	PLUM
PU	PURPLE
RD	RED
RO	ROSE
RP	ROSE-PINK
SA	SALMON
SB	SKY-BLUE
SC	SCARLET
SP	SALMON-PINK
SR	SALMON-RED
VL	VIOLET
WH	WHITE
WN	WINE
WP	WINE-PURPLE
WR	WINE-RED
YW	YELLOW

1978 VARIETY FLOWER TRIALS

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SCHOOL

1978 VARIETY FLOWER TRIALS

1978 VARIETY FLUNER TRIALS

1978 VARIETY FLOWER TRIALS

VIRGINIA BEACH TRIALS

In charge: Dr. C. J. Elstrodt
Virginia Truck and Ornamentals Research Station
1444 Diamond Spring Road
Virginia Beach, Virginia 23455

The 1978 Annual Flower Varietal Trials were conducted at the Flower Trial Gardens located at the Virginia Truck and Ornamentals Research Station, Virginia Beach, Va. The gardens contain approximately 7400 square feet of bed space arranged in a formal design with bermudagrass walkways separating the beds. In addition to displaying commercially marketed varieties, the trial gardens serve as an official All America Display Garden, presenting the award winning flowers selected by the All America Selections Committee each year.

Small Seeded Varieties. Small Seeded Varieties were sown during the period of February 24 to March 25, 1977 in plastic seed flats in a commercially prepared medium known as Jiffy Mix¹. Following sowing, flats were placed in a germination chamber containing fluorescent lighting and maintained at 65° F night temperature, 75° F day temperature. Bottom soaking was used to maintain moisture as necessary. A soil drench of Benlate and Truban controlled seedling diseases. During the period of March 15 - April 15, seedlings were transplanted to 2½" Jiffy Strips¹ containing Jiffy Mix and moved to the greenhouse.

Large Seeded Varieties. During March 1977 large seeded varieties were sown directly into wooden flats of 2½" Jiffy Strips containing Jiffy Mix and moved directly to the greenhouse, covered with glass plates to maintain moisture or watered as necessary by bottom soaking. As seedlings developed, they were thinned to one plant per plot.

Bed Preparation, Planting, Fertilization, Weed Control. Outdoor beds were fumigated November 10, 1977 with Sodium Azide (15G)² at a rate of 1.85 pounds per 100 square feet. Polyethelene covers were left in place until spring to prevent recontamination of beds. All plants received two fertilizations of Peters 20-20-20³ while in the greenhouse and then, in the garden, one application of Osmocote Sierrablen (19-6-10 & iron) at the rate of two pounds per 100 square

feet. In addition to the Azide fumigation, a 4 inch mulch of shredded pine bark was applied to all beds to assist in weed control and moisture retention. Weed control was excellent within beds; however, herbicide treatment of beds was necessary to control bermudagrass encroaching from the walkways. Rainfall was supplemented by irrigation during drought periods.

Evaluation. Open House for the public was held on August 9, 1978, with nearly 3000 visitors in attendance. The following day more than 200 commercial growers and trade people visited the Station for Field Day. Since most of the flowers reached their peak at this time, data evaluating growth response and plant characteristics were collected on all varieties. Attached tables represent averages in centimeters. Va. Tech Horticulture work study student Terri Lee Ellis was responsible for all phases of the trials in the field.

Contributing Companies

1. Jiffy Products of America
P.O. Box 338
West Chicago, Illinois 60185
2. Pittsburg Plate Glass Co.
P.O. Box 576
Flat Rock, N.C. 28731
3. Peters Fertilizer Co.
2833 Pennsylvania Ave.
Allentown, Pa.
4. Sierra Chemical Co.
1001 Yosemite Dr.
Milpitas, California 95035

Suggested Annual Flowers for 1979

Ageratum: Biscaya
 Begonia: Coco, Orient Pink, Cocktail
 Cineraria: Silverdust
 Coleus: Fiji Mix, Saber Mix, Rose Wizard
 Gazania: Giant Flower Mix
 Gerbera: California Mix
 Geranium: Sprinter Series, Colorcade, Red Apple, Red Champion, Sincerity, Fire Flash
 Gloriosa Daisy: Pinwheel, Double Gold
 Marigold: Cabaret Orange, Gypsy Sunshine, Lady Series, Nugget Series, Red Pygmy, Pretty Joy Mix, Midas touch
 Nicotiana: Nicki Rose
 Petunia: Candyapple, Blue Mist, Jamboree Rose-Pink, Patriot Mix
 Portulaca: Sunnyside DBL Mix, Calypso Mix
 Salvia: Bonfire elite
 Snapdragon: Dwf. Butterflies
 Solanum: Fiery Festival
 Vinca: Little Mix
 Zinnia: Cherry Ruffles, Peter Pan Cream, Yellow Buttons, Candy Cane, Firecracker, Yellow Zenith, Red Sun

Source of Seeds

AAS All American Selections
 4546 El Camino Real, Los Altos, Cal. 94022

BE Benary Seed Co.
 Benary, Ernest, Hann, Muenden Germany

BU W. Atlee Burpee Company
 300 Park Ave.
 Warminster, PA 18974

DE Denholm Seeds
 222 N.A. St. Lompoc, California 93436

GL Fred C. Gloeckner & Co. Inc.
 15 East 26th St. New York, NY 10010

GS Goldsmith Seeds, Inc.
 P.O. Box 1349 Gilroy, California 95020

HA Joseph Harris Co. Inc.
 Moreton Farm, Rochester, N.Y. 14624

PA Pan American Seed
 Box 438 West Chicago, Ill. 60185

PK George W. Park Seed Co. Inc.
 Greenwood, S.C. 29647

RS Royal Sluis
 P.O. Box 22
 Enkhuizen, Netherlands 1940

Plant/Variety/Source	Ht. Range cm	Ht. cm	Sp. cm	F1. cm	Comments
Ageratum					
Biscaya (RS)	25-63	40	42	3.5	Outstanding
Blue Surf (GS)					
North Sea (RS)	23-30	27	35	2.5	
Spindrift (GS)	13-25	21	30	3	
Asarina					
Asarina (PK)	5-20	10		2	Makes nice ground cover.
Begonia					
Coco Ducolor (RS)	12-33	25	22	3	Beautiful
Coco Scarlet Bright (RS)					
Coco Salmon Pink (RS)					
Orient Pink (RS)	14-32	23	15	3	Beautiful
Verdo light Pink (RS)					
Thousand Wonders (BE)					Outstanding
Cocktail, Mixed (BE)	12-37	27	27	3	Beautiful flowers and form.
Calendula					
Fiesta Gitana (RS)	21-32	31	28	3.5-5	Very attrac. early in season. Ht. sensitive.
New Gem Mix (BU)	18-30	23	25	3-4	
Cineraria					
Silverdust (RS)	14-26	20	25	NA	Outstanding
Christmas Pepper Solanum					
Fiery Festival (HA)	19-30	25	25	fruit 6	Outstanding
Holiday Cheer (PA)					
Cleome					
Royal Queen Mix (HA)	120-150	138	80	10 cross 4 length	Excl. beg. of seas., defol. by Harlequ. bugs in lt. summer.
Queen Mix (BU)	120-160	138	80	10 cross 4 length	Same as above.
Coleus					
Fiji Mix (PA)	30-80	65	45	NA	Outstand., nice form, brilliant colors
Greensleeves (PA)	7-58	18	23	NA	
Pink Dragon (PA)	6-32	20	20-25	NA	
Saber Mix (PA)	39-70	60	40	NA	Outstanding
Rose Wizard (PA)	40-75	65	40	NA	Outstanding

Plant/Variety/Source	Ht. Range cm	Ht. cm	Sp. cm	F1. cm	Comments
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<u>Dianthus</u>					
Lace Mixed (PK)	10-24	21	20	3.5	Poor, sparse
Queen of Hearts (GS)	16-34	30	30	3.5	Outstanding
Snowfire (AAS)	11-23	20	18	3	Fair
<u>Dahlia</u>					
Rigoletto (RS)	33-50	44	27	4-7	
Sunburst Mixed (BU)	30-74	61	47	5-7	
<u>Gazania</u>					
Colorama Mix (DE)	10-20	17	23	4	Fair
Giant fl. Mix (RS)	10-21	20	25	4	Good
<u>Geranium</u>					
Cherie (GS)	25-32	30	30	6.5	
Deep Salmon (DE)	13-33	30	40	6.5	
Innocence (HA)	20-42	31	35	8	Wide range in size of plant
Love Song (HA)	14-32	26	30	6.5	Flwr. usu. turn brown before fully open.
Red Apple (DE)	20-40	34	35	6.5	Nice dk. gr. fol., compact lots of flowers.
Red Champion (HA)	22-35	34	35	8.5	Very attractive.
Sincerity (HA)	19-35	30	30	6	Very attractive.
Sooner Red (DE)	20-39	32	27	6	
Sprinter Mix (GS)	21-40	32	30	6	
Sprinter Starlet (GS)	19-39	36	40	4.5	
Colorcade Mixed (BU)	20-40	33	34	6.5	Very attractive.
Firecracker (PA)	16-33	30	30	5	
Scarlet Flash (PA)	22-40	36	35	6	Nice, gr., full
Fire Flash (PA)	20-34	25	30	6.5	Very attractive.
Showgirl (AAS)	27-45	35	27	5	
<u>Gloriosa Daisy</u>					
Pinwheel (BU)	40-73	62	40	4-14	Very att. Begin decl. Aug. 20
DBL Gold (BU)	55-80	70	40	6-10	Very att. Begin decl. Aug. 20
<u>Hypoestes</u>					
White Polka Dots (PK)	63-82	74	40		Outstanding, full, bushy
Pink Dots (PA)	64-88	84	40	NA	
White Dots (PA)	47-83	74	40		Outstanding, full, bushy
<u>Impatiens</u>					
Futura Rose Pink (GS)	40-68	52	40-68	3.5-40	
Futura Coral (GS)	40-68	52	40-68	3.5-40	
Shadeglow Series (HA)	40-68	52	40-68	3.5-40	
Elfin Lilac (PA)	40-68	52	40-68	3.5-40	
Grande Mix (PA)	40-68	52	40-68	3.5-40	
Grande Orchid (PA)	40-68	52	40-68	3.5-40	

Plant/Variety/Source	Ht.	Range	Ht.	Sp.	Fl.	Comments
	cm	cm	cm	cm	cm	
<u>Petunia (con't)</u>						
Harvest Moon (GS)						
Jamboree Purple (HA)						
Jamboree Rose-Pink (HA)						Looked great, not bothered by Botrytis & Rhiz.
Jamboree Salmon (HA)						Sparse flowering
Patriot Mixture (GS)						O.K., not bothered by any diseases
Peace of White (HA)						Very sus. to Botrytis & Rhiz. Full and bushy beautiful flowering effect.
Pink Came. (HA)						
Plum Pudding (GS)						Bushy, full, lots of brilliantly colored fl. Not bothered by any diseases.
Red Cap. (HA)						
Red & White Delight (GS)						Sparse flow., wiry pl. Weren't both. by diseases.
Rose Cloud (GS)						One of nicest looking. Slightly sus. to diseases.
Blushing Maid (AAS)	20-30	26	30	7		Beautiful, highly Rec.
<u>Portulaca</u>						
Sunnyside (HA)	10-23	17	40	4		Outstanding
Calypso Mix (PA)	12-20	15	38	4		Outstanding
<u>Salvia</u>						
Bonfire Elite (HA)	75-85	82	35	28		Excellent, stem bore
Rodeo (RS)	42-60	52	25	18		
Scarlet Midget (RS)	32-63	57	35	20		
St. Johns Fire (HA)	50-63	60	30	25		
Carabiniere (PA)	34-52	48	25	17		
<u>Snapdragon</u>						
Frontier Strain (HA)	35-60	50	30	19		
Dwarf Butterfly (GS)	20-40	30	33	6		
Liberty Bell (BU)	27-40	34	23	14		Good
Toppee Hybrid	45-78	63	30	20		Good
Wedding Bells (BU)	32-67	56	14			Best. Nice fl. effect & sz.
<u>Vinca</u>						
Little Mixed (DE)	35-60	44	50	4		
Mixed (DE)	50-70	60	50	4		Beautiful, no moths
<u>Zinnia</u>						
Yellow Buttons (BU)	35-48	46	50	3		Outstanding
Candy Cane (BU)	60-70	65	55	6-10		Beautiful, healthy
Firecracker (BU)	90-100	97	65	12		Beaut. Not as bothered by Rhizopus mildew.
Tetra Rugged Jumbo (BU)	80-90	85	70	10-14		Jap. Beetles, Rhizopus
Boddess Salmon (BU)	70-110		55	10		Mildew
Whirligig (BU)	58-90	85	45	5-10		Mildew, Jap. Beet., Riz.

Plant/Variety/Source	Ht. cm	Range	Ht. cm	Sp. cm	F1. cm	Comments
<u>Impatiens (con't)</u>						
Grande Red (PA)	40-68		52	40-68	3.5-40	
Grande Rose (PA)	40-68		52	40-68	3.5-40	
<u>Marigold</u>						
Boy-O-Boy Mix (DE)	34-41		40	43	3	
Cabaret Orange (HA)	43-52		46	44	3.5	
Goldstrike (DE)	42-47		47	40	3	
Gypsy Sunshine (HA)	43-60		53	50	3.5	
Harmony Boy (DE)	30-45		40	41	3	
Honeycomb (DE)	50-62		54	50	4	
Luxor Gold (RS)	26-43		34	35	4	
Luxor Yellow (RS)	33-40		41	35	3.5	
Midas Touch (DE)	40-60		52	60	4	
Orange Winner (RS)	34-51		47	40	4	
Primo Apricot (RS)	40-65		52	41	4	
Red Swirl (PK)	58-65		60	40	4.5	
Stardust (DE)	45-62		56	65	4	
Yellow Boy (DE)	36-43		40	45	3.5	
Brown Scout (BO)	30-40		37	43	3	
Deep Orange Lady (BU)	44-66		56	40	5	
First Lady (BU)	54-70		60	37	6	
Gay Ladies Mix (BU)	55-70		58	38	4.5	
Gold Lady (BU)	50-70		66	55	5.5	
Orange Nugget (BU)	33-54		43	40	3.5	
Pretty Joy Mix (BU)	30-48		40	32	1.5	
Pygmy Primrose	33-47		37	40	2.5	
Primrose Lady (BU)						
Red Nugget (BU)	25-47		38	30	4	
Red Pygmy (BU)	30-54		40	33	2-4	
Red Seven Star (BU)	25-55		35	55	5	
Toreador Climax (BU)	85-100		95	50	5.5	
Yellow Climax (BU)	63-110		100	65-70	6	
Yellow Nugget (BU)	25-36		30	30	3.5	
Primrose Lady (AAS)	65-80		70	40	5	Tall, heavy, rec. Aphids
Yellow Galdre (AAS)	65-90		72	40	6	Tall, heavy, Aphids
Queen Sophia (AAS)	50-79		62	35	3.5	Tall, heavy, Aphids
Copper Canyon	50-87		60	40	5	Vry tall & hvy. Need stak.
<u>Nicotiana</u>						
Nicki Lime (PA)	44-60		48	35	3	
Nicki Red (PA)	37-54		40	25	3.5	
Nicki Rose (PA)	40-50		47	33	4.5	
<u>Petunia</u>						
Blue Mist (HA)						Nice, attrac., however, very sus. to Botrytis and Rhiz.
Candy Apple (GS)						Very attrac., also one of nicest looking.
Fiesta (GS)						
Gypsy (HA)						Rhizopus, Botrytis, unus. humid weath., looked great 1st mo.

Plant/Variety/Source	Ht. Range cm	Ht. cm	Sp. cm	F1. cm	Comments
<u>Zinnia</u> (con't)					
Yellow Zenith (BU)	65-100	75	50	10	Mildew, Excellent
Zenith Hybrid (BU)	60-103	83	50	10	Weak necks, mild., Riz.
Cactus f1. Mix (BU)	56-110	85	55	8.5	
Red Sun (AAS)	65-95	80	50	7-12	Sparse fl., strong plant, Rec.
Peter Pan Cream (AAS)	35-62	42	38	8	Bushy, excellent
Gold Sun (AAS)	65-97	77	40	6-11	Stem borers; very good
Peter Pan Gold (AAS)	34-60	45	40	59	Mildew; very good
Yellow Ruffles (AAS)	50-90	80	50	3-75	Stem a little weak/neck otherwise, excell.
Cherry Ruffles (AAS)	70-100	95	40	6	Weak necks, Highly Rec. Ex.

