
Poinsettia Cultivar Evaluation - 1998

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Sixty cultivars of poinsettia were grown at the main campus of Mississippi State University to examine the performance of the cultivars in the mid south region. Thirty six cultivars were obtained from The Paul Ecke Ranch, sixteen cultivars from Fischer USA, and eight cultivars from Oglevee.

As the rooted cuttings arrived from the different companies, all varieties except Winter Rose and Pepride were potted into 6 inch diameter azalea pots in Sunshine Mix 1 (Sun Gro Horticulture, Bellevue, WA). These two were potted into 5 inch azalea pots. Oglevee cultivars arrived on 19 August 1999, Paul Ecke cultivars on 26 August 1998, and Fischer USA cultivars on 26 August 1998 (Table 1). All cuttings were drenched with a fungicide (Banrot, 8 oz./100 gallons; The Scotts Co., Marysville, OH) after potting. On 10 September 1998, photoperiod lighting was set up to provide 4 hours of light from 22:00 to 02:00 HR for long day conditions. The lights were turned off and short days started 5 October 1998. Natural short days were used to bring plants to flower. All plants were pinched 10 September 1998 to leave 5 to 6 leaves. Marathon (Olympic Horticultural Products, Mainland, PA) was applied 16 September 1997 to control whitefly. Most cultivars were treated with a 2500 ppm B-Nine (Uniroyal Chemical, Middlebury, CT) + 1000 ppm Cycocel (Olympic Horticultural Products, Mainland, PA) tank mix on 28 September 1998 (Table 1).

Data collected included plant height (measured from the container rim), average number of bracts per plant, inflorescence diameter (average of two inflorescences per plant), and number of weeks from the start of short days to first pollen shed. Cultivars were also evaluated by 44 open-house attendees who were asked to list their first, second, third, fourth, and fifth favorite in order of preference.

Results and Discussion

Of the cultivars trialed, only Orion Red, and Nova Red reached anthesis in less than 8.5 weeks. All cultivars required longer to reach anthesis than the response times reported by the companies supplying the cuttings (Table 2). However, most of the cultivars had reached full color and bract size before reaching anthesis. The majority of the cultivars required from 9 to 10 weeks to reach anthesis.

The single application of B-Nine+Cycocel tank mix was effective in controlling plant height. Almost all cultivars grew to a height between 14 and 18 inches including the container (Table 2). Within the cultivar series, the individual cultivars were consistent in height. There were a few cultivars which were notably taller. Of these Nutcracker White, Angelika Marble, Angelika White, Flirt, and Monet were all 16 inches or taller.

Average inflorescence number is an indication of a cultivar's branching habit. All cultivars were pinched to leave about 6 expanded leaves. Two cultivars, Monet Twilight and Nutcracker Pink, developed over 10 inflorescences (Table 2). There was a trend toward fewer branches in Lemon Drop, Liberty Red, Bonita, Cortez Pink, and Cortez Red.

Winter Rose and Pepride had the smallest inflorescence diameter (Table 2). These cultivars were grown in smaller containers and are noted for being smaller and recommended for smaller containers. Lemon drop also had small inflorescences of only 12.49 inches. Angelika Marble, Angelika White, Silverstar Red, Flirt, and Petoy Red all had inflorescences over 16.5 inches in diameter. Most cultivars were in the range between 14 and 16 inch inflorescence

diameter.

When evaluated by the general public Eckespoint Red Velvet was chosen by almost half (48.8%) of the evaluators as their number one favorite cultivar (Table 3). Freedom Red was most frequently chosen as the second favorite cultivar, Winter Rose as the third, Nova Red as the fourth, and Winter Rose as the fifth favorite cultivars. Of the first favorites Red Splendor and Winter Rose were the second and third most selected as the first favorite cultivar. These selections follow the trend of consumers preferring red varieties with dark green foliage. It also shows that the consumer is open to some of the new novelty cultivars currently being offered. Many of the pink, marbled, white, and jingle type cultivars were selected by evaluators as their favorite. Of the marble types, Peterstar Marble was most frequently selected as a favorite. Eckespoint Jingle Bells, Freedom Pink and Snowcap were most frequently selected as favorites of the jingle bells, pink, and white cultivars respectively.

Conclusions

Red cultivars with dark foliage were ranked most often as the primary favorite by the consumer. Winter Rose with its incurved red bracts made a large impact on the evaluators indicating potentially large consumer acceptance and desire for something new. The evaluators also selected some of the pink, white, marble, and jingle bells types as favorites indicating an interest in variety. Among the evaluators, there was also interest shown for the variegated leaf varieties.

As a series, the Freedom series was among the earliest in the trials and should serve well for early season sales. The Sonora and Liberty series came in about one half to one week later and should work for mid-season sales. The Peterstar, Cortez, and Nutcracker series were among the latest flowering cultivars. The very earliest flowering was observed in Orion and Nova Red.

Table 1. Scheduling information and characteristics of poinsettia cultivars trialed at Mississippi State University, 1998.

	Date Potted	Date of PGR spray	Response to Short Days (weeks)	Color description
Paul Ecke Ranch				
Beckman's Altrosa Maren	08/27/98	09/28/98	8.5	Salmon pink
Eckespoint Candy Cane	08/27/98	09/28/98	9.5	White with red and pink
Eckespoint Cranberry Punch	08/27/98	09/28/98	8	Cranberry Red
Eckespoint Freedom Bright Red	08/27/98	09/28/98	8	Bright Red
Eckespoint Freedom Jingle Bells	08/27/98	09/28/98	8	Red with white speckle
Eckespoint Freedom Marble	08/27/98	09/28/98	8	White with pink
Eckespoint Freedom Pink	08/27/98	09/28/98	8	Pink
Eckespoint Freedom Red	08/27/98	09/28/98	8	Red
Eckespoint Freedom Rose	08/27/98	09/28/98	8	Rose red
Eckespoint Freedom White	08/27/98	09/28/98	8	White
Eckespoint Jingle Bells	08/27/98	09/28/98	9.5	Red with white speckle
Eckespoint Jingle Bells 3	08/27/98	09/28/98	9.5	Red with white speckle
Eckespoint Lemon Drop	08/27/98	09/28/98	8.5	Pale yellow
Eckespoint Monet	08/27/98	09/28/98	9.5	Multi-color cream, rose
Eckespoint Monet Twilight	08/27/98	09/28/98	9.5	Darker than Monet
Eckespoint Red Satin	08/27/98	09/28/98	9	Satin Red
Eckespoint Red Velvet	08/27/98	09/28/98	9	Velvet Red
Eckespoint Snowcap	08/27/98	09/28/98	8.5	White

	Date Potted	Date of PGR spray	Response to Short Days (weeks)	Color description
Eckespoint Success	08/27/98	09/28/98	9.5	Red
Gross Darlyne	08/27/98	09/28/98	8.5	Pink
Gross Heirloom Pink	08/27/98	09/28/98	9	Light pink, variegated
Gross Red Baron	08/27/98	09/28/98	9	Waxy maroon red
Gutbier V-14 Glory	08/27/98	09/28/98	9.5	Red
Gutbier V-17 Angelika Marble	08/27/98	09/28/98	9	White with pink marble
Gutbier V-17 Angelika White	08/27/98	09/28/98	9	White
Annette Hegg Hot Pink	08/27/98	09/28/98	9	Bright pink
Peter Jacobsen's Pearl	08/27/98	09/28/98	8.5	White
Peter Jacobsen's Pepride	08/27/98	— ^z	8	Red, oak leaved
Peter Jacobsen's Peterstar Jingle Bells	08/27/98	09/28/98	8.5	Red with white speckle
Peter Jacobsen's Peterstar Marble	08/27/98	09/28/98	8.5	White with pink
Peter Jacobsen's Peterstar Pink	08/27/98	09/28/98	8.5	Pink
Peter Jacobsen's Peterstar Red	08/27/98	09/28/98	8.5	Red
Peter Jacobsen's Peterstar White	08/27/98	09/28/98	8.5	White
Peter Jacobsen's Petoy Red	08/27/98	09/28/98	8.5	Red
Red Splendor	08/27/98	09/28/98	10	Red
Winter Rose	08/27/98	— ^z	10	Red, incurved bracts
Oglevee				
Dynasty Red	08/20/98	09/28/98	9.5	Red
Festival Red	08/20/98	09/28/98	8-8.5	Red, down turned bracts
Liberty Pink	08/20/98	09/28/98	8-8.5	Pink, veins darker
Liberty Red	08/20/98	09/28/98	8-8.5	Red
Nutcracker Pink	08/20/98	09/28/98	8.5	Pink
Nutcracker Red	08/20/98	09/28/98	8.5	Red
Nutcracker Salmon	08/20/98	09/28/98	8.5	Coral pink
Nutcracker White	08/20/98	09/28/98	8.5	White
Fischer USA, Inc.				
Bonita	08/26/98	09/28/98	8	Red
Cortez Pink	08/26/98	09/28/98	8.5-9	Pink
Cortez Purple Rose	08/26/98	09/28/98	8.5-9	Rose-red
Cortez Red	08/26/98	09/28/98	8.5-9	Red
Cortez White	08/26/98	09/28/98	8.5-9	White
Flirt	08/26/98	09/28/98	9-9.5	Pink
Nova Red	08/26/98	09/28/98	7.5	Red
Orion Red	08/26/98	09/28/98	6.5	Red
Picacho	08/26/98	09/28/98	7.5	Red
Silverstar Pink	08/26/98	09/28/98	8-8.5	Pink, variegated leaf
Silverstar Red	08/26/98	09/28/98	8.5	Red, variegated leaf
Sonora	08/26/98	09/28/98	9-9.5	Red
Sonora Jingle	08/26/98	09/28/98	9-9.5	Speckled red
Sonora Pink	08/26/98	09/28/98	9-9.5	Pink
Sonora Purple Rose	08/26/98	09/28/98	9-9.5	Rose-red
Sonora White	08/26/98	09/28/98	8.5-9	White

^zno growth regulator applied.

Table 2. Comparison of poinsettia cultivars grown at Mississippi State University fall 1998.

	Average Height	Inflorescence	Inflorescence Diameter	Weeks to
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	(inches)	Number	(inches)	Anthesis
Paul Ecke Ranch				
Beckman's Altrosa Maren	9.31	7.2	15.70	8.9
Eckespoint Candy Cane	9.31	6.7	12.84	9.9
Eckespoint Cranberry Punch	10.13	7.0	13.58	8.9
Eckespoint Freedom Bright Red	8.95	6.0	14.41	8.8
Eckespoint Freedom Jingle Bells	8.83	6.8	14.49	8.9
Eckespoint Freedom Marble	8.91	5.8	14.37	8.9
Eckespoint Freedom Pink	9.54	6.3	15.04	8.9
Eckespoint Freedom Red	8.83	6.3	14.68	8.8
Eckespoint Freedom Rose	8.32	6.3	14.25	8.6
Eckespoint Freedom White	9.66	5.8	14.72	8.9
Eckespoint Jingle Bells	9.74	6.5	14.61	10.7
Eckespoint Jingle Bells 3	9.74	6.7	12.88	11.0
Eckespoint Lemon Drop	8.72	4.7	12.49	10.4
Eckespoint Monet	10.91	6.3	15.63	11.3
Eckespoint Monet Twilight	9.89	10.3	14.49	11.1
Eckespoint Red Satin	8.60	6.7	14.17	10.1
Eckespoint Red Velvet	10.48	6.5	15.19	9.9
Eckespoint Snowcap	10.52	7.3	15.94	10.0
Eckespoint Success	10.33	6.2	13.39	11.0
Gross Darlyne	9.66	5.8	15.39	9.6
Gross Heirloom Pink	8.24	6.0	14.80	10.1
Gross Red Baron	9.34	7.0	14.29	9.3
Gutbier V-14 Glory	9.15	6.3	14.17	11.3
Gutbier V-17 Angelika Marble	12.88	6.7	17.55	9.9
Gutbier V-17 Angelika White	11.94	6.2	16.61	9.9
Annette Hegg Hot Pink	10.29	6.5	15.16	8.9
Peter Jacobsen's Pearl	6.95	6.5	15.39	9.9
Peter Jacobsen's Peptide	7.26	6.2	12.52	9.0
Peter Jacobsen's Peterstar Jingle Bells	10.13	5.8	14.41	10.3
Peter Jacobsen's Peterstar Marble	9.19	6.5	16.22	10.1
Peter Jacobsen's Peterstar Pink	9.23	6.0	15.63	10.1
Peter Jacobsen's Peterstar Red	9.54	6.2	15.82	10.4
Peter Jacobsen's Peterstar White	9.54	5.8	15.74	10.4
Peter Jacobsen's Petoy Red	9.93	5.8	16.53	9.9
Red Splendor	10.09	6.8	15.90	10.1
Winter Rose	8.44	6.3	8.76	9.6
Oglevee				
Dynasty Red	10.6	5.7	15.74	10.7
Festival Red	8.87	6.8	14.49	8.8
Liberty Pink	8.56	6.5	13.94	8.9
Liberty Red	10.52	4.8	15.67	8.9
Nutcracker Pink	9.5	10.2	15.31	9.0
Nutcracker Red	9.74	5.8	16.80	9.1
Nutcracker Salmon	10.01	6.5	14.72	9.0
Nutcracker White	12.05	5.8	16.41	9.3
Fischer USA, Inc.				
Bonita	10.01	4.8	15.63	10.4
Cortez Pink	9.31	4.0	15.23	10.3
Cortez Purple Rose	8.56	6.0	16.10	10.4
Cortez Red	9.03	4.5	14.96	10.1
Cortez White	8.32	5.0	15.86	10.4
Flirt	10.91	5.8	16.61	9.6

Nova Red	9.85	5.5	15.51	8.4
Orion Red	9.15	6.7	14.02	7.6
Picacho	9.11	6.5	14.88	10.4
Silverstar Pink	9.03	6.5	15.31	10.4
Silverstar Red	9.19	6.0	16.61	10.7
Sonora	8.44	5.0	14.80	9.9
Sonora Jingle	7.85	5.7	14.21	9.9
Sonora Pink	8.36	6.0	15.23	9.9
Sonora Purple Rose	8.24	5.8	13.47	9.9
Sonora White	7.97	5.8	15.16	9.9
LSD _{0.05}	1.02	2.4	0.79	— ^z

^z anthesis data are averages. No statistical analysis was run on anthesis data.



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Table 3. 1998 Evaluator's selection as their first, second, and third favorite cultivars.

Cultivar	First favorite	Second favorite	Third favorite	Fourth favorite	Fifth favorite
	%	%	%	%	%
Eckespoint Red Velvet	48.8	9.1	4.7	2.3	9.5
Red Splendor	9.3	4.7	4.7	0	4.8
Eckespoint Winter Rose	7.0	9.1	14.0	4.7	14.3
Gross Red Baron	4.7	2.3	4.7	0	0
Eckespoint Freedom Bright Red	4.7	2.3	2.3	2.3	0
Eckespoint Freedom Pink	4.7	2.3	0	4.7	0
Peterstar Marble	4.7	2.3	0	2.3	7.1
Eckespoint Freedom Red	2.3	15.9	4.7	4.7	0
Orion Red	2.3	6.8	7.0	7.0	7.1
Dynasty Red	2.3	2.3	0	0	4.8
Sonora Jingle	2.3	0	7.0	2.3	7.1
Gross Heirloom Pink	2.3	0	0	4.7	0
Nutcracker White	2.3	0	0	2.3	0
Liberty Red	2.3	0	0	0	2.4
Eckespoint Snowcap	0	6.8	9.3	7.0	0
Nova Red	0	6.8	2.3	9.3	0
Eckespoint Freedom Marble	0	2.3	7.0	2.3	4.8
Festival Red	0	2.3	4.7	0	0
Gutbier V-17 Angelika Red	0	2.3	2.3	2.3	0
Peter Jacobsen's Pepride	0	2.3	2.3	0	4.8
Silverstar Red	0	2.3	0	7.0	0
Eckespoint Freedom White	0	2.3	0	4.7	7.1
Maren	0	2.3	0	2.3	0
Silverstar Pink	0	2.3	0	0	4.8
Freedom Jingle Bells	0	2.3	0	0	2.4
Liberty Pink	0	2.3	0	0	0
Nutcracker Pink	0	2.3	0	0	0
Jingle Bells 3	0	2.3	0	0	0
Cortez Pink	0	2.3	0	0	0
Eckespoint Jingle Bells	0	0	11.6	7.0	0
Gross Darlyne	0	0	2.3	2.3	0
Nutcracker Salmon	0	0	2.3	0	0
Gutbier V-17 Angelika White	0	0	2.3	0	0
Cortez Purple Rose	0	0	2.3	0	0
Petoy Red	0	0	2.3	0	0
Eckespoint Cranberry Punch	0	0	0	7.0	0
Freedom Rose	0	0	0	2.3	4.8
Eckespoint Monet	0	0	0	2.3	4.8
Annette Hegg Hot Pink	0	0	0	2.3	2.4
Sonora White	0	0	0	2.3	0
Eckespoint Lemon Drop	0	0	0	2.3	0
Peterstar White	0	0	0	0	4.8
Pearl	0	0	0	0	2.4

