

# **FIFTY POINSETTIA CULTIVARS IN 1994. WE CAN'T WAIT FOR '95**

**Roy A. Larson and Ingram F. McCall  
Dept. of Horticultural Science, NCSU**

**I**n 1994 we obtained 50 cultivars and selections from poinsettia breeders in the United States, though not all of the cultivars got their start on this side of the Atlantic Ocean. France, Germany, and Norway also were represented. This year we hope to have even greater participation and selection. On November 30, 1994 we had 82 attendees at our Poinsettia Open House. Our open house in 1995 will be on November 29, and we hope we get even more visitors then.

It surely would be nice if one could predict with certainty just what a poinsettia season will be like weather-wise but one only gets that knowledge after the crop is done. We wish every poinsettia season would be as easy for us as we had it in 1994. We could tell by the weather

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conditions in September and October that we should be off to a good start but that still left us with November and half of December as possible barriers to a successful crop. Mild night temperatures in late September and early October gave us a strong reason to believe that flower initiation would occur quite quickly and excessive height should not be a problem. Therefore we decided early in the season that we would not use growth regulators on the plants we pinched September 15, and we would be able to compare the natural growth habits of the many cultivars.

As state employees we decline to endorse a particular chemical or company but Marathon™ brought us welcome relief from whiteflies. We really don't know how much injury we inflict upon poinsettias when we or other growers have to spray pesticides a couple of times each week, and yet not always get the control we desire. Some growers have expressed disappointment in the whitefly control they didn't achieve with Marathon in 1994 but our results were positive. We applied Marathon on September 26, at 1.3 grams per 6 1/2" pot and we had excellent control until mid-November, when we used PlantFume 103™ to clean up a slight infestation. (The

greenhouse is screened to exclude insects, we only had clean plants in the house, so their arrival in mid-November is hard for us to explain. Perhaps Jim Baker can respond to the mystery, or we might begin to believe in the much abused theory of spontaneous generation).

We try very hard to make our cultural practices very simple. Our fertilization program does not require a sophisticated knowledge of soil or plant chemistry (Table 1). We never sprayed with a calcium fertilizer to prevent bract edge burn, and we did not detect any bract edge burn on any of the cultivars. We probably were more luck than skilled but our potting substrate never dries out completely, and we do have good air movement in the double-layered film plastic greenhouse. We also use quite generous amounts of calcium in our fertilization program, both on the stock and finishing plants. In no way are we smug about our lack of bract edge burn in 1994. We realize that a different set of circumstances in 1995 could affect us badly but things we can control, such as water, calcium, other fertilizers and media, we do control. We don't have the day temperature control to the precision we would like to have it, particularly on a very bright day, but we seem to do satisfactorily.

We already mentioned that we did not use any growth regulators in 1994 because we anticipated early flower initiation. Heights listed in Table 2 reveal that some of the plants could have been a little taller, making them a bit more acceptable, but almost all of our plants were in balance with the pot size, and they would have been commercially acceptable. One other reason for the plant height we obtained is that we put the plants at a 14" x 14"

**Table 1. Poinsettia fertilization program followed in 1994.**

Date	Fertilizer	Rate/100 gals
September 12	Calcium nitrate, potassium nitrate	33 and 18 oz.
September 13	Osmocote 14-14-14 topdressing	1 tsp./pot
September 16	Calcium nitrate, potassium nitrate	
September 23	20-10-20	32 oz.
September 30	Calcium nitrate, potassium nitrate	
October 7	Calcium nitrate, potassium nitrate	
October 11	Magnesium sulfate (Epsom salts)	32 oz.
October 14	20-10-20	
October 21	Calcium nitrate, potassium nitrate Ammonium molybdate	2.5 oz.
October 28	Calcium nitrate, potassium nitrate	
November 4	20-10-20	
November 11	Calcium nitrate, potassium nitrate	
November 18	Calcium nitrate, potassium nitrate	

**Table 2. Growth and flowering characteristics of 45 cultivars in 1994 NCSU trials.**

Cultivar	11/22 no. of shoots	11/7 shoot length	11/21 shoot length	11/21 bract height	Date of visible color	Date of visible cyathia	Date of anthesis
Amelita	6.5	5.5 <sup>a</sup>	7.0 <sup>a</sup>	10.0 <sup>b</sup>	10/24	10/30	11/23 <sup>c</sup>
Angelika	7.5	7.5	9.0	12.0	10/25	10/30	11/22
Angelika Marble	8.0	6.0	8.0	12.0	10/31	10/31	11/23
Angelika Pink	8.0	8.0	8.5	12.0	10/29	10/28	11/20
Angelika White	8.0	6.0	7.0	10.5	10/30	10/27	11/20
Annette Hegg Dark Red	6.0	7.5	8.5	10.5	10/22	10/23	11/14
Annette Hegg Hot Pink	6.5	6.5	6.5	10.5	10/31	10/22	11/13
Annette Hegg Top White	7.0	6.5	7.0	10.0	10/31	10/23	11/20
Bonita	8.5	5.5	6.5	9.5	10/11	10/27	11/22
Celebrate	3.0	5.5	6.5	10.0	10/18	10/23	11/14
Celebrate Pink	4.5	5.5	6.5	9.0	10/26	10/26	11/16
Celebrate 2	6.5	5.0	5.5	9.0	10/22	10/27	11/22
Celebrate 2 Pink	7.0	5.0	5.5	8.5	10/24	10/27	11/17
Celebrate 2 White	8.0	5.5	6.5	10.0	10/31	10/30	11/19
Cortez	9.0	4.5	5.0	8.0	10/24	11/5	11/30
Dark Puebla	8.5	5.5	6.0	10.5	10/16	10/24	11/18
Flirt	9.0	5.5	7.0	10.0	10/30	10/30	11/21
Freedom	6.0	4.5	5.5	9.5	10/19	10/24	11/18
Freedom Jingle Bells	7.0	5.0	6.0	9.5	10/21	10/23	11/11
Freedom Marble	6.5	4.5	5.5	8.0	10/28	10/27	11/17
Freedom Pink	8.0	5.5	6.5	10.0	10/24	10/23	11/12
Freedom White	6.0	5.0	6.0	9.0	10/28	10/24	11/19
Jingle Bells 3	6.0	5.0	6.0	9.0	10/14	11/1	11/22
Jolly Red	6.5	5.5	7.0	10.0	10/27	11/6	12/5
Lemon Drop	4.5	4.0	5.0	8.0	10/21	10/28	11/29
Lilo	8.0	8.0	10.0	13.5	10/30	10/23	11/19
Lilo Marble	7.0	6.5	7.5	11.5	11/5	10/23	11/16
Lilo Pink	7.5	6.5	8.0	11.5	11/5	10/22	11/15
Lilo White	8.0	8.0	8.5	12.0	11/6	10/23	11/16
Maren	8.5	5.0	5.5	9.5	10/27	10/31	11/23
Monet	5.5	5.0	5.5	8.5	10/28	10/31	11/22
Nobelstar	9.0	5.0	5.5	9.0	10/26	11/2	11/26
Picacho	8.5	4.0	4.5	7.5	10/20	10/24	11/19

<sup>a</sup>Shoot length measured from main axis of stem to tip of shoots.

<sup>b</sup>Height measured from pot rim to uppermost portion of canopy.

<sup>c</sup>Anthesis was the date when pollen was evident.

**Table 2, Continued.**

Cultivar	11/22 no. of shoots	11/7 shoot length	11/21 shoot length	11/21 bract height	Date of visible color	Date of visible cyathia	Date of anthesis
Pink Peppermint	6.0	5.5 <sup>a</sup>	6.0 <sup>a</sup>	9.0 <sup>b</sup>	10/27	10/27	11/20 <sup>c</sup>
Puebla	9.0	6.0	7.5	11.0	11/10	11/7	12/5
Red Delight	6.5	5.0	6.0	10.0	10/7	10/18	11/13
Red Elegance	6.5	8.5	12.5	15.5	10/30	10/24	11/25
Red Sails	8.5	6.5	7.0	11.0	10/23	10/26	11/22
Sonora	8.5	5.0	6.0	9.0	10/20	10/27	11/22
Success	7.0	5.5	7.0	10.5	10/21	10/30	11/25
Supjibi	6.0	5.5	6.5	9.0	10/26	10/27	11/22
Supjibi Pink	7.0	7.0	7.0	10.0	10/26	10/28	11/19
V-14 Glory	5.0	5.5	7.5	10.0	10/27	11/7	11/27
V-14 Hot Pink	6.0	5.0	6.0	9.5	10/26	10/31	11/23
V-14 White	6.0	6.0	7.0	10.0	10/30	11/3	11/22

<sup>a</sup>Shoot length measured from main axis of stem to tip of shoots.

<sup>b</sup>Height measured from pot rim to uppermost portion of canopy.

<sup>c</sup>Anthesis was the date when pollen was evident.

spacing the day the rooted cuttings are transplanted. They never get crowded because our intention to space them next week never gets sidetracked, as 14" × 14" is our first and final spacing. (At the second International Poinsettia

Conference, sponsored by the Poinsettia Growers' Association and held in San Diego January 11–15, some growers advocated the crowding of 'Freedom' plants right after pinching, to get the lateral shoots to extend upward so they wouldn't break so readily later. A disadvantage with such a practice is that too often the crowding continues too long, as some more pressing items occur, and plants don't get moved when they should).

We used Fafard 4P™ in our 1994 evaluation. The substrate was donated by Carroll's Greenhouses in Raleigh. We never encountered any nutrient disorders, root rot or any other difficulties.

Plant heights were measured and recorded periodically. Flowering data, such as the average dates of visible flower buds (cyathia), bract color and appearance of pollen (anthesis) also were calculated. Those data and other information are shown in Table 2.



Figure 1. An overview of the 1994 NCSU poinsettia trials.

Earlier we mentioned that we wish every poinsettia season was as easy for us as we had it in 1994. We do keep careful watch over our crop, we try to provide good environmental and pest control in the greenhouse, but somethings such as outside temperatures and sunshine are beyond our control. We felt weather was our ally in 1994 and we obtained weather records to see if we were right. We also obtained weather records for Asheville, Charlotte, Greensboro and Winston Salem, and Wilmington. Average minimum and maximum temperatures and percent possible sunshine for those locations are given in Table 3.

Space does not permit all data to be presented but a closer look at the Raleigh data indicates that from September 15 to October 15, the average minimum temperature was 65 or higher only on September 17 (66 °F), September 25 (65 °F) and 26th (66 °F). Other locations had similar weather.

Our plants in 1994 were compact without the use of growth regulators, most of the cultivars had an abundance of lateral shoots, and only 'Puebla'

would not have been salable on November 30 when we had our open house. Representative plants of many cultivars were photographed on December 15, and a few are shown on the next page.

We did not conduct any post-greenhouse evaluations as we do not have ideal sites for such

**Table 3. Average temperatures and percent possible sunshine from September 1 to December 31 at five weather stations in North Carolina, in 1994.**

Location	Month	Temperatures (°F)		Percent of possible sunshine
		min.	max.	
Asheville	September	54	75	66
	October	45	66	a
	November	39	62	a
	December	35	52	a
Charlotte	September	62	80	51
	October	52	71	a
	November	46	66	51
	December	40	56	33
Greensboro/ Winston-Salem	September	57	78	66
	October	47	69	50
	November	40	63	45
	December	36	54	41
Raleigh	September	59	79	61
	October	48	71	52
	November	42	66	55
	December	38	58	40
Wilmington	September	63	81	67
	October	54	75	53
	November	49	71	a
	December	45	62	a

a = data not provided. Weather stations are at airports at all five sites.

studies, but we are aware of the extreme importance of that phase. Often the greenhouse “ages” plants more than the home interior would, because of the high day temperatures in a greenhouse. Most of the plants that remained in the greenhouse until late December still were acceptable when they were discarded.

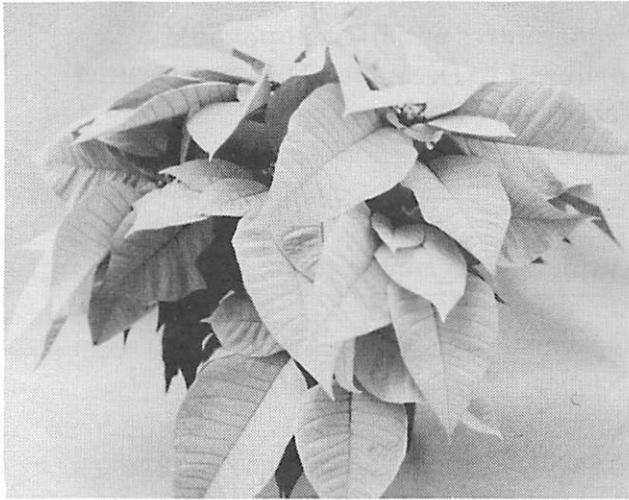


Figure 2. 'Maren' is a promising salmon / pink from Fischer.

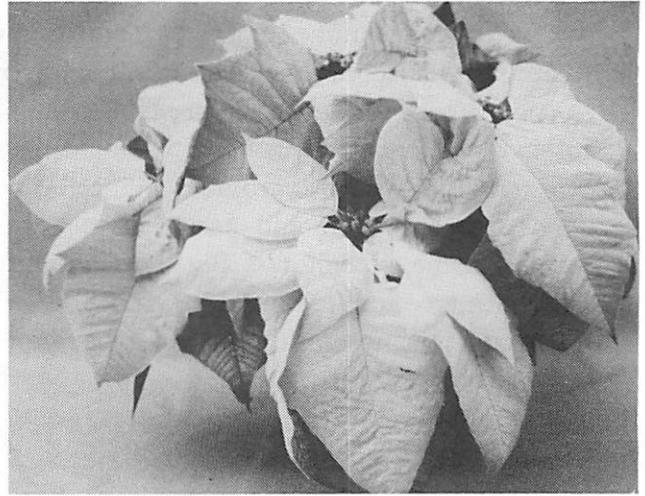


Figure 3. 'White Freedom' is a new member of Ecke's Freedom family.

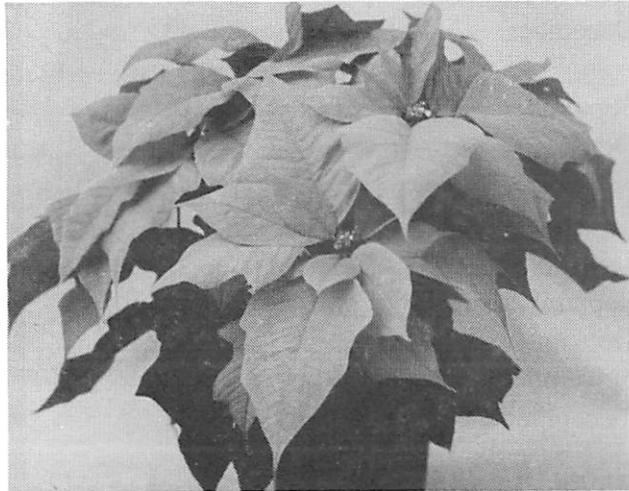


Figure 4. 'Success' is a new vigorous red from Ecke.



Figure 5. 'Picacho' is an early pure red from Fischer.



Figure 6. 'Puebla' is a vibrant marble from Fischer.

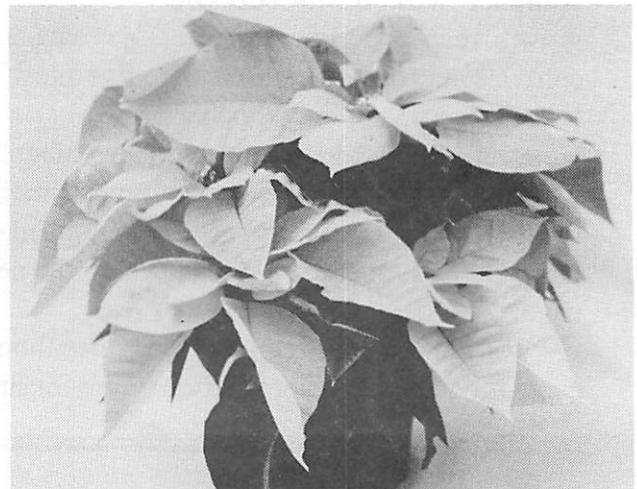


Figure 7. 'Nobelstar' is a coral / pink from Fischer.