



Colorado Flower Growers Association

IN COOPERATION WITH COLORADO A AND M COLLEGE

Ray App, Secretary, 4434 Lowell Blvd.,
Denver, Colorado

Bulletin 77

March 1956

Carnation Timing with Air Cooling

by W. D. Holley

The results obtained at Colorado A & M are fragmentary since houses in which this timing work was done were cooled from August 10 to September 10, only. However, some indications can be drawn from the results.

Rooted cuttings of Salmon Sim were benched May 13, pinched the first time on May 31, and the second pinch where made, was started July 5, 1955. Four timing treatments were tried as follows: single pinch on May 31; pinch and a half with one break per plant pinched on July 5 and July 20; pinch and three-quarters with one break per plant pinched July 5, July 20, and August 5; and a complete second pinch of one break per plant July 5-20, August 5-20.

Production from the single pinch peaked around September 15, which is about the time uncooled plants handled in the same way would have peaked. BUT the return crop was back heavily by January 10, which is 4 to 5 weeks earlier than our previous records for uncooled plants. The laterals on flowering stems cleared earlier and were larger when the flowers of the first crop were cut. This no doubt was due to the cooler temperature of August and September. How much more effect would have resulted from June and July cooling is not known.

The other treatments produced as follows:

Pinch and a half--high steady production beginning November 1.
Pinch and three-quarters--high steady production beginning November 13.
Complete second pinch--high steady pro-

duction beginning November 20.
In this latter treatment, the July 5 pinch which was the first to flower, came in to bloom in late November.

Which schedule produced the most for the Christmas period?

Production for Nov. 20 to Dec. 24 period--
28 square feet per treatment.

	Number flowers	Fls. per sq. ft.	% of best schedule
Single pinch	54	1.9	27
Pinch and 1/2	198	7.0	100
Pinch and 3/4	168	6.0	85
Complete 2nd	176	6.3	89

From these results, even though they are incomplete, we have an indication that flowers from a summer pinch may take about the same time to develop in cooled or uncooled houses. The indication is strong that return crops will be much faster in cooled houses.

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The accompanying figure shows the distribution of production from the four timing treatments. All treatments except the single pinch produced heavily for Christmas, however the pinch and a half treatment with this timing reached its highest production sufficiently early to return in early May. Note also that all treatments were low for the Easter period.

1. Single pinch

- (a). First crop to peak November 25 to December 10--bench rooted cuttings June 20 to July 1, pinch high July 20 to August 1.
- (b) To hit Christmas on the second crop, plant rooted cuttings in bench or nursery bed early April, pinch early May, cut first crop in August.

2. Pinch and a half

Plant rooted cuttings mid-May, pinch June 5, pinch two breaks per plant July 10 to 20.

3. Complete second pinch

Handle about the same as 1(b) above except that second pinch is timed from mid-June to July 20. Instead of cutting flowers in August a heavier crop is put on the plants to flower in fall and winter.

Table 1 shows the yield by monthly periods with the total production per treatment to March 17. It is interesting to note the similar total production for each treatment. The pinching affected primarily the distribution of that production. The yield per treatment will be carefully watched for the remainder of the season.

Table 1. The yield by monthly periods for four timing treatments on Salmon Sim carnations.

Period beginning	Single pinch	Pinch and a half	Pinch and three-quarters	Complete second pinch
August 7	56			
September 4	111	7		
October 2	54	51	36	14
October 30	53	109	83	55
November 27	43	160	143	152
December 25	136	138	191	204
January 22	128	138	104	159
February 19	81	51	64	88
Total	662	664	621	672

Best Estimate for Timing

The best estimate for timing heavy production for the Christmas period of late November and early December follows. Large cuttings and unchecked growth must be used to fit this schedule in Colorado.

