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Carnation Cropping Systems -- A Report of Progress

by
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To get basic information on the response of carnations to various methods of handling and pinching, and to approach some sort of control to carnation flowering, nineteen cropping systems are being tested. This set of treatments was designed with previous information on carnation timing (Colo. Flower Growers Bull. #20) in mind.

The following data is only a part of that which will be available from these studies. Since the data will be of value to many carnation growers, we are publishing it just as fast as possible.

Large, healthy cuttings of the varieties William Sim, White Sim, and Crowley's Pink Sim were used. Four different propagation dates and two different methods of handling young plants were employed. These are outlined for each group of plants.

Three randomized plots of thirty-five carnation plants each were used for each treatment. The production figures presented in the tables are for all three plots totaling 105 plants occupying a total of 35 sq. ft. of bench area.

The flowers were cut to several side breaks during the summer, one or two breaks during the fall, and to no breaks after December 16. An exception to this was on the two direct-planted, single-pinched systems No. 16 and 19. The entire first crop of these two systems was cut high, leaving several breaks on each stem.

A comparison of quality from each system, week by week, was obtained by weighing all flowers after side growths had been removed. Weak-stemmed blooms were broken down to lower grades before being weighed.

The following outlines, tables, and graphs give the major responses to these cropping systems to date:

GROUP A: Propagated February 10, 1951
Set in nursery bed 3 by 4 inches, March 10
Pinched, April 15
Benched in sterilized soil May 18-19
*Second pinch as follows:

1. No second pinch
2. One break per plant June 5, 20, July 5
3. One break per plant June 5, 20, July 5, 20
4. Two breaks June 15 - two July 15
5. All breaks pinched June 15
6. All breaks pinched June 20

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Table 1. Production in four-week periods for treatments in group A.

2nd Pinch: *	July 15 to Aug. 11	Aug. 12 to Sept. 8	Sept. 9 to Oct. 6	Oct. 7 to Nov. 3	Nov. 4 to Dec. 1	Dec. 2 to Dec. 29	Dec. 30 to Jan. 26	Jan. 27 to Feb. 23	Total
None	302	80	19	31	106	130	110	102	880
2	4	111	98	98	155	128	111	93	798
3		43	109	139	168	132	116	94	801
4		77	93	102	138	131	145	112	798
5	1	60	145	111	129	88	92	100	726
6	2	72	154	130	136	100	91	86	771

*Refers back to outline on Group A.

GROUP B: Propagated March 15, 1951
Set in nursery bed 3 by 4 inches April 15
Pinched May 15
Benched in sterilized soil June 15

**Second pinch as follows

7. No second pinch
8. One break per plant July 5, 20, Aug. 5
9. One break per plant July 5, 20, Aug. 5, 20
10. All breaks pinched July 10
11. Two breaks per plant pinched July 15, two Aug. 15
12. All breaks pinched July 20
13. All breaks pinched August 15

Table 2. Production by four-week periods for treatments in group B.

2nd Pinch: **	July 15 to Aug. 11	Aug. 12 to Sept. 8	Sept. 9 to Oct. 6	Oct. 7 to Nov. 3	Nov. 4 to Dec. 1	Dec. 2 to Dec. 29	Dec. 30 to Jan. 26	Jan. 27 to Feb. 23	Total
None	39	221	71	20	30	121	196	143	841
8		7	32	64	140	151	141	119	654
9				21	90	173	192	135	611
10		2	31	115	191	137	142	91	709
11			1	15	117	159	203	148	643
12	4	1	14	54	198	197	160	107	735
13	33	25			38	157	229	121	603

GROUP C: Propagated April 15, benched direct May 18, pinched June 15
Second pinch as follows:

14. Two pinches per plant Aug. 15, two Sept. 19
15. All breaks pinched Sept. 19
16. No second pinch

GROUP D: Propagated May 15, benched direct June 15, pinched July 15
Second pinch as follows:

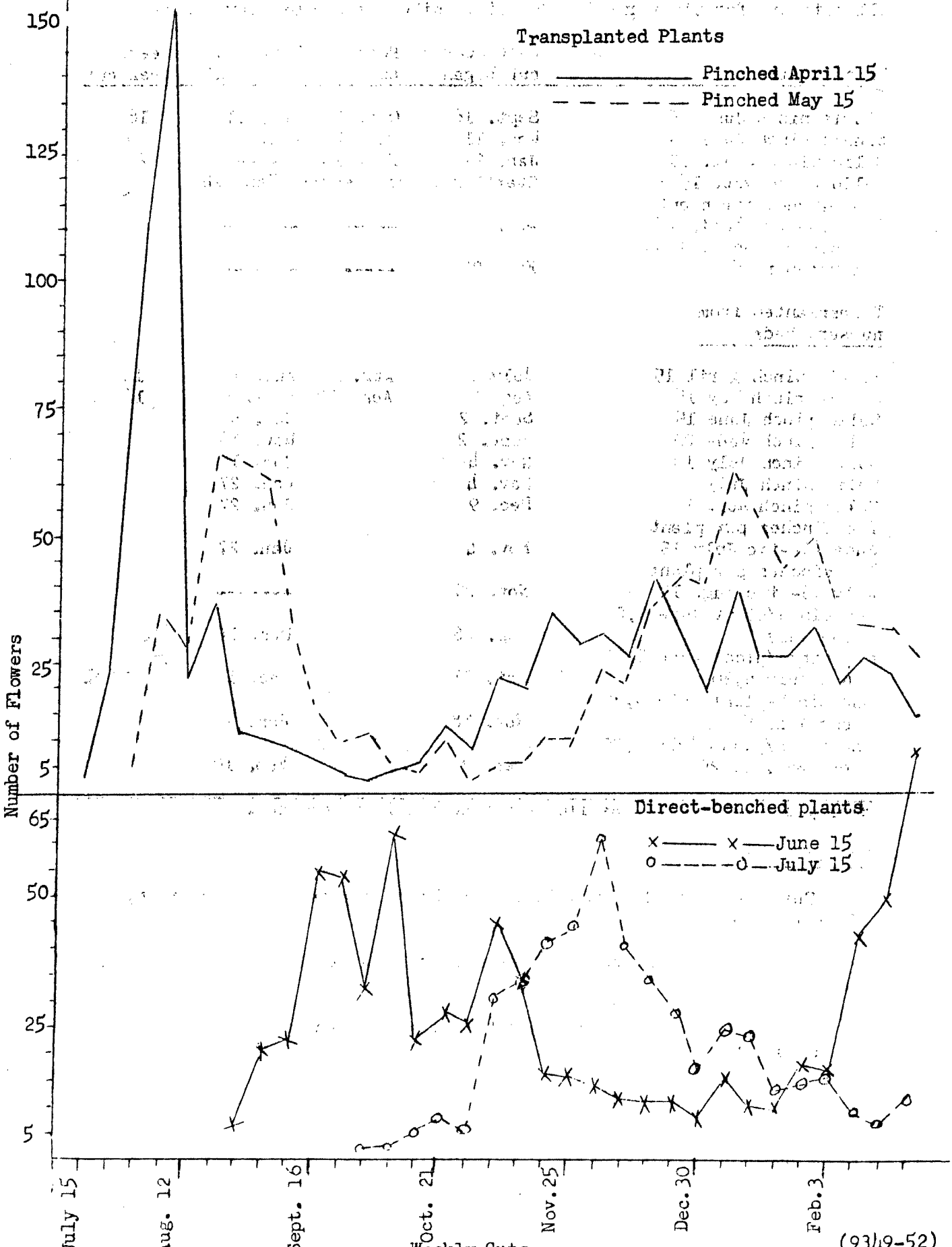
17. Two pinches per plant Sept. 19, two Oct. 15
18. All breaks pinched Oct. 15
19. No second pinch

Table 3. Production in four-week periods for direct-benched treatments

Treatment	Aug. 12 to Sept. 8	Sept. 9 to Oct. 6	Oct. 7 to Nov. 3	Nov. 4 to Dec. 1	Dec. 2 to Dec. 29	Dec. 30 to Jan. 26	Jan. 27 to Feb. 23	Total
14				20	70	138	211	437
15	23	37	3	4	28	58	266	419
16	28	164	140	112	47	45	129	665
17					4	47	78	129
18		9	13		2	37	61	122
19		1	20	150	164	79	47	461

The distribution of production as influenced by the four single pinch treatments (numbers 1, 7, 16 and 19) is shown in the accompanying figure. Note the pronounced crops brought about by this method of handling.

The Distribution of Carnation Flower Production from Four Different Single Pinch Treatments -- Colorado A & M -- 1951-52



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