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The Role of the Second Pinch in Carnation Production Timing

by

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The distribution of carnation flower production from four different single-pinch treatments was presented in Colorado Flower Growers Bulletin No. 29. When more than one pinch is used to regulate carnation production, the behavior of the plants is somewhat different.

Essentially there are three different methods of making the second pinch in use among commercial growers. In all methods the plants are pinched the first time and allowed to grow until resulting breaks are long enough for pinching again. The plants should be benched three to four weeks after the first pinch if they were not benched standard as rooted cuttings. The time required after the first pinch until breaks are sufficiently developed for a second pinch varies on the Sim varieties from seven to eleven weeks - the top break usually requiring the least time.

The three methods in use are as follows:

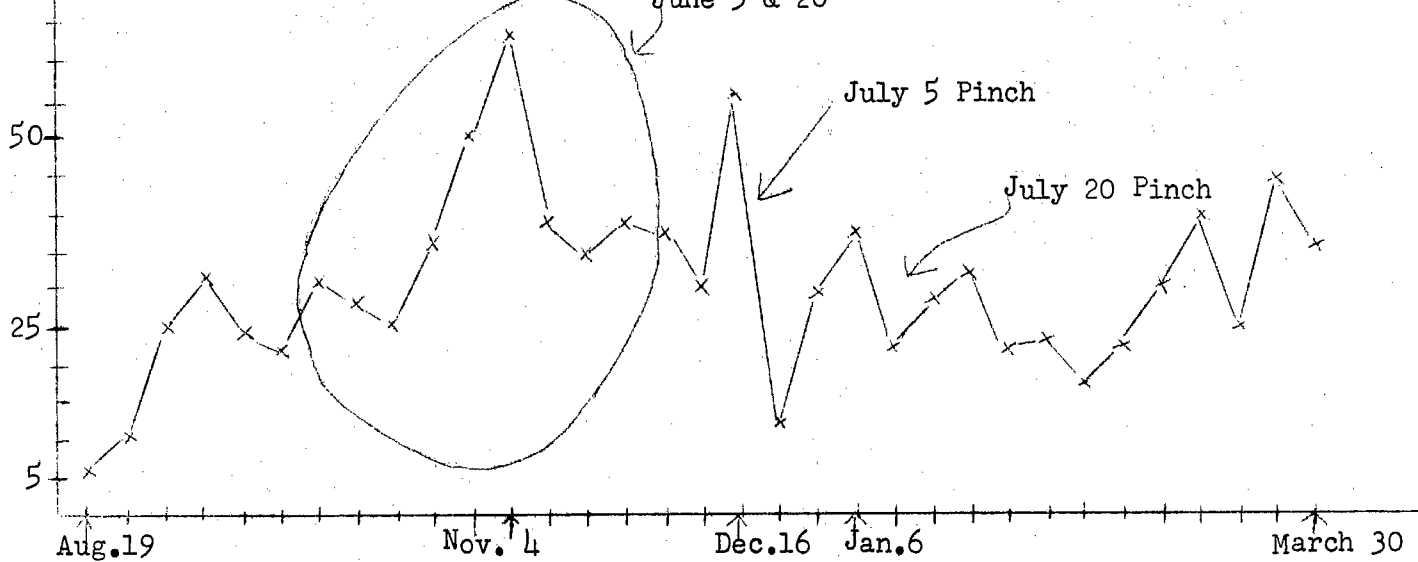
1. Solid pinch in which all breaks that have developed to the proper stage are pinched at the same time. This is sometimes called a "haircut" pinch.
2. A staggered pinch in which the most advanced break on each plant is pinched at weekly or bi-weekly intervals until all or most of the plant has been pinched the second time.
3. A variation of the staggered pinch in which more than one break per plant is pinched each time but the interval between pinches may be three weeks or a month. There are numerous variations of these pinching methods but almost any method in use will resemble one of them closely.

Representative production curves for the three methods are shown in the accompanying diagram. Each curve shows the distribution of the total production from three randomized plots of 35 plants each or production from a total of 105 plants. The varieties used were White Sim for Curve A and William Sim for B and C. Uniformly large cuttings were rooted February 10, grown in a nursery bed from March 10 to May 18, when they were benched standard. The plants were pinched first on April 15. The second pinch treatments are outlined below each curve. All second pinches were made high on the plant leaving several previously cleared axillary growths. Only breaks that had cleared axillary growths were pinched. Each succeeding pinch in the two systems of staggered pinching was made higher on the plants than the previous pinch.

Second Pinch in Carnation Timing
Fusarium Complex
Hydrangea Nutrition
Liquid Feeding

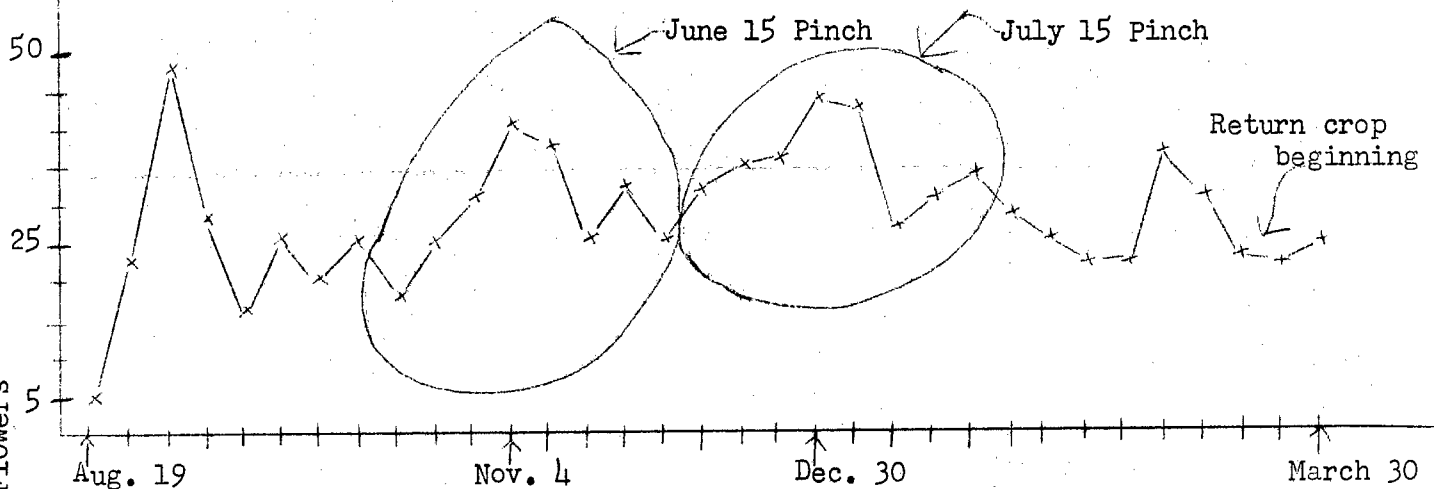
The Influence of Three Different Methods of Pinching on the Distribution of Flower Production--1951-52

from pinches made
June 5 & 20



Production by weeks

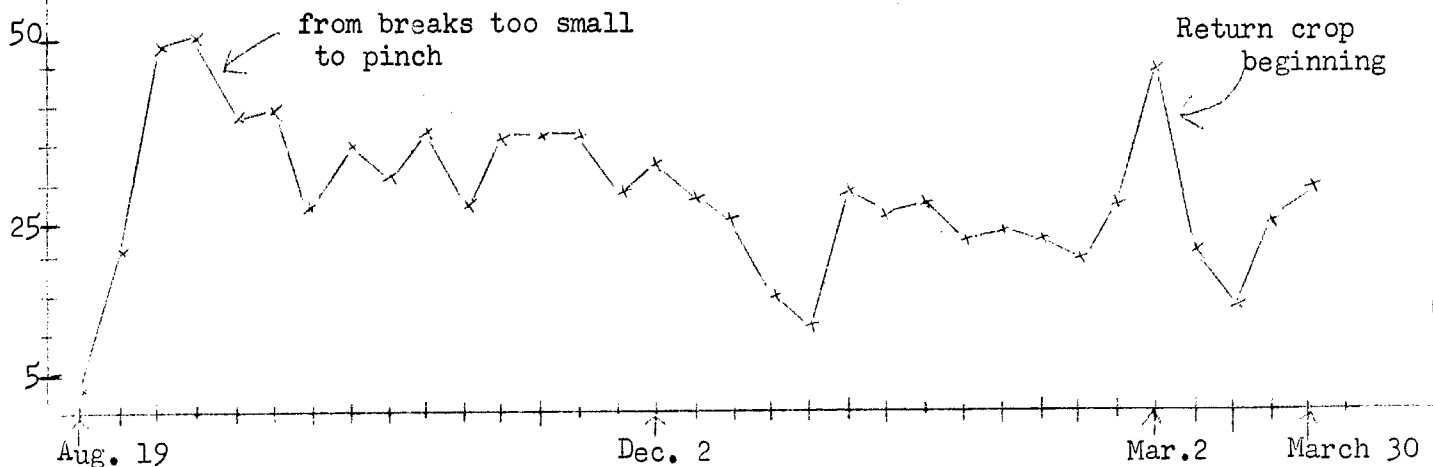
A. One break per plant pinched June 5, 20, July 5, 20



Production by weeks

B. Two breaks pinched June 15---two pinched July 15

Number of Flowers



Production by weeks

C. All breaks large enough were pinched June 20

Curve A

Due to weather conditions in late October and early November the June 5 and 20 pinches overlapped and formed only one peak. The July 5 pinch peaked its production the week following December 16 and the July 20 pinch produced mostly in early January. When the July 20 pinch was left off this series, September production was much greater.

Curve B

The first peak on the left was caused by breaks which were not sufficiently developed for pinching on July 15. Note that the July 15 pinch did not peak until December 30. This steady production with pronounced peaks for the pinches is rather typical of this system of pinching.

Curve C

The solid pinch gives a different type of curve. The first spurt of production, which may be rather large, was caused by breaks which were too small to pinch on June 20. Following this peak comes a high and steady production which gradually tapers off to the end of the crop. There are always occasional jobs in the curve due to weather.

These curves present some interesting information and will merit careful study. One of the most important points which they reveal concerns the Christmas crop. A pinch on the Sim varieties made July 15 will not make Christmas, if there is a lot of production ahead of it on the same plants such as from June or early July pinches.

On direct-benched cuttings a single pinch made July 15 may be slightly early for Christmas but will produce the bulk of its crop within the Christmas marketing period.

Flowers cut to sizeable breaks in late July and early August will return a good percentage of their crop for the Christmas period. Hard pinches to large breaks high on the plant in early August will accomplish this same purpose at the sacrifice of flowers almost ready to cut.

Breaks which are of optimum size for pinching in late July give September production, if not pinched. If September flowers are desirable, less pinching should be done in late July, or benches should be planted especially for September and midwinter flowering.

A staggered system of pinching gives a series of peaks in addition to more or less steady production. This type of pinching is inductive to high quality. Solid pinching is not detrimental to quality or production if done properly. Breaks that are not sufficiently vigorous to have cleared side growths should never be pinched. These weak breaks will produce only one new break and many will remain blind. If left alone, the small breaks will take the lead over the new crop and flower just ahead of the pinches. Normally about three-fourths of the breaks on a plant, or less, are ready to be pinched at one time.