

Fruit from April planting—left—compared with fruit from August planting—right—photographed May 15, 1954.

Stored Strawberry Plants

August planting in southern California frost-free areas gave crop in 1 instead of 1½ years needed by April planting

Victor Voth

Strawberry plants of the Lassen variety—dug in February and stored at 28F–30F until planted in August—produced as well the following spring as April plantings.

Fruit quality of the spring crop on the August plantings was much better than that from comparable plantings made the preceding April.

Experiments conducted at coastal frost-free locations—Torrey Pines and Fallbrook—in San Diego County indicated that this cultural practice would give a grower a full crop in one year's time instead of the year and a half required by April plantings.

A preliminary experiment with a limited planting made in the fall of 1952 showed that plants dug in February and stored until they were planted in September produced well in 1953 with better quality than plantings made in April

1952. However, the harvest began 10 to 20 days later in the case of the September plantings.

For comparison, other plants were dug in September, October, and November 1952 and planted in the field with no artificial chilling. These plants remained prostrate and made very little growth before spring, presumably because of insufficient chilling. The production from the fresh planted plots came later and was less than half that from the April plantings or the September stored-plant plots.

To obtain additional information, a larger planting of 2,500 stored plants was made in August of 1953 and compared with an April 1953 planting.

The quality of the fruit picked during April, May, and part of June 1954, from the August—stored-plant—planting, was superior to that from the April planting

during the same period. This is evidenced by the fact that during the months of April, May and June, the fruit of the August planting commanded a premium of \$.50 to \$1.00 per crate over that of the April planting because of the better quality. The quality was identical for both plantings during the rest of the summer and fall of 1954.

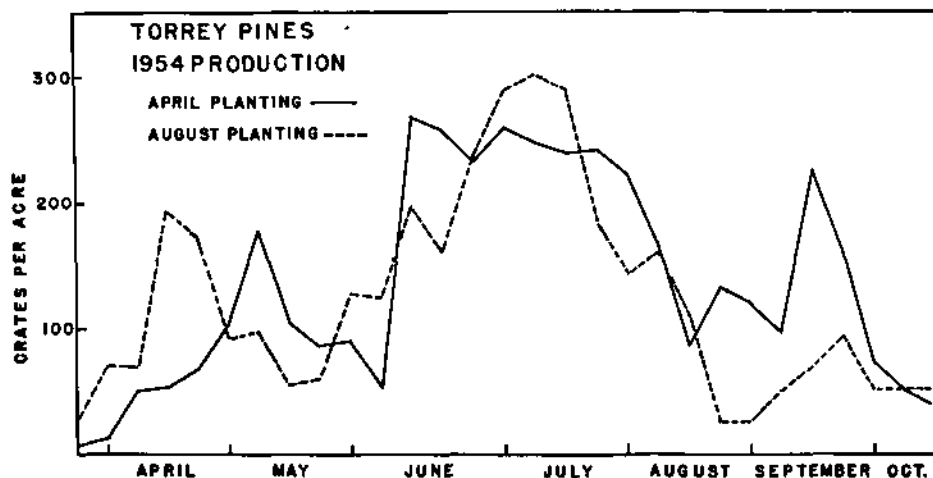
The production curves for the two 1953 plantings show that the production began at approximately the same date, although the August planting had higher production during April, and both plantings reached the peak of their production during June and July. The total production was almost the same since the August planting yielded approximately 3,500 crates per acre, and the April planting yielded approximately 3,700 crates per acre.

The fact that the quality of Lassen fruit from April plantings is not good in the early spring may be associated with failure of the mild frost-free winter to provide sufficient chilling. The fruit of the April planting does not color and size well, and is rounded instead of having the wedge shape that is typical of Lassen in northern California. The August planting, on the other hand, had good size and the shape was more typical of northern California Lassen.

Identical 1953 plantings were made at Fallbrook at a semi-coastal frost-free location. The results obtained were essentially the same as those at Torrey Pines.

The production at Fallbrook began

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STRAWBERRIES

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2-4 weeks earlier and was completed earlier—August 20—than the production at Torrey Pines. The earliness and shorter production period at Fallbrook are probably associated with warmer temperatures which prevail during the

growing season. Early production and quality are important in the southern counties due to favorable price situation on the Los Angeles markets during February, March, and April.

The plants are kept in storage at temperatures between 28F-30F in order to check the growth of soft rots or molds which may occur at temperatures above 32F. Survival counts were taken about one month after planting, and only 5%-10% of the plants were lost. The plants made runners enough during September and October to fill in the misses and produced a solid stand by November 1.

Sprinkler irrigation was used to start all plantings in order to insure an ample moisture supply during the periods of high temperature that are common during August and September.

In storing plants for August planting, certain precautions must be taken to insure livability. There must be sufficient moisture in the moss—sphagnum or peat—packed around the plants so that they will not dry out during the six-to-seven-month storage period. Wooden apple boxes have been very satisfactory.

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