

Six-Inch Spacing Ups Cantaloup Yield

Wider Spacings Showed Lower Yields
In Tests at University Research Farm

By W. D. Pew

In commercial cantaloup production direct seeding in continuous rows has rapidly replaced hill planting, except where capping is practiced. Thus, the determination of a plant spacing which will give maximum yields is of utmost importance. Obviously the proper distance between individual plants is important in getting the highest production of high-quality melons of desirable size.

To accomplish maximum production the number of cull melons and melons of the less important sizes must be kept at a minimum since each melon, whether cull or marketable, makes a certain nutrient requirement on the vine.

Growers have expressed different opinions about plant spacing within the row. In commercial fields now, as well as in the past, where continuous row planting procedures have been used, there are almost as many different spacings as there are growers

of the crop. These range from 6-inches to as high as 24 to 30-inches.

With variations of this nature, much can be gained in standardizing the spacing practice which will give maximum yields. For experimental purposes, spacing intervals were selected which included the usual commercial range of variations. These were extended beyond these limits to include an additional spacing on each end of the scale. The experimental range included individual plant spacings of 3, 6, 12, 18, and 24-inches.

The plant population, determined by individual plant spacings, had a direct and highly significant influence on the total marketable melons produced. (See graph at lower left.) It also had a direct bearing on the ratio which could be expected between the various marketable sizes.

Six-Inch Spacing Best

Although the plants in the 3-inch spacing consistently produced the greatest total number of marketable melons, these yields were not significantly greater than the yield obtained from plants of the 6-inch spacing. Further, it should be pointed out that the plants spaced 6-inches apart significantly outyielded plants of the other spacings—3, 12, 18, and 24-inches—in 36, and 45 combined with 36 melons-per-crate sizes.

Yields from the two wider spacings were significantly lower than those for the other three spacings. Not only did the wider spaced plants produce fewer melons but also produced a larger percentage of the less desirable larger sizes compared to the medium sizes which are preferred by consumers.

The closer the spacings, the greater the total number of cull melons were produced. This would seem to agree with what may be expected, since the closer the spacing used, the greater the number of plants per acre produced. However, the number of culls was not proportionate to the increase

in total plant population.

That is, calculating on the basis of culls per plants it was found that plants spaced 3-inches apart averaged .27 culls per plant while plants of the 24-inch spacing averaged .70 culls per plant. The intermediate spacings provided points when connected which resulted in an almost perfect straight line between the two extremes. (See graph at right below.)

Field Trials Successful

During the past year certain commercial growers have tried the 6-inch spacing and have significantly improved their yields. These increases are undoubtedly the result of the greater number of plants which can be maintained properly because of improved cultural and fertilization methods. Where band placement of fertilizers is used, individual plants spaced 6-inches apart are better arranged for maximum utilization of the applied fertilizers than are plants of wider spacings or those planted in hills.

The soil used in this investigation is classified as Sunrise clay loam, which is a rather heavy soil type. This should be considered when evaluating the data, since melons grown on lighter soils quite likely would require slightly wider spacings.

In these tests, plants spaced 6-inches apart in the row and grown under good cultural and fertilization practices produced the largest and most economical melon crop.

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