

Arizona Producers Provide a Variety of Melons

by C. Curtis Cable, Jr.*

This is the fourth article in a series focusing on the longrun market prospects for Arizona vegetables and melons. The first article examined national trends, the second described Arizona's industry as it relates to the U.S. vegetable and melon industry, and the third was a detailed analysis of the state's lettuce industry. This fourth article describes Arizona's melon industry and the U.S. and foreign market potential for melons.

Cantaloups, honeydew melons and watermelons account for approximately a fourth of the annual value of Arizona's vegetable and melon crops. As indicated in the second article of this series, cantaloups are the principal melons grown in the state, with a farm value of \$11 million to \$17 million annually.

The annual farm value of Arizona watermelons has increased from \$1.5 million in the early 1960s to about \$2.5 million in the early 1970s. The value of the state's honeydew melon crops also increased during the past 10 years — from less than \$1 million to more than \$1.5 million.

Cantaloups

Consumption and Market Trends — U.S. per capita consumption of cantaloups remained relatively constant at approximately 8 pounds annually for the 15-year period 1957-71 (Chart 1). Thus, total domestic consumption has increased in direct proportion to the increase in population.

It is important, therefore, that cantaloup producers recognize that although U.S. population is increasing, the rate of growth has been declining for several years. This trend along with possible changes in per capita consumption should be closely watched in appraising the present and future U.S. market for cantaloups.

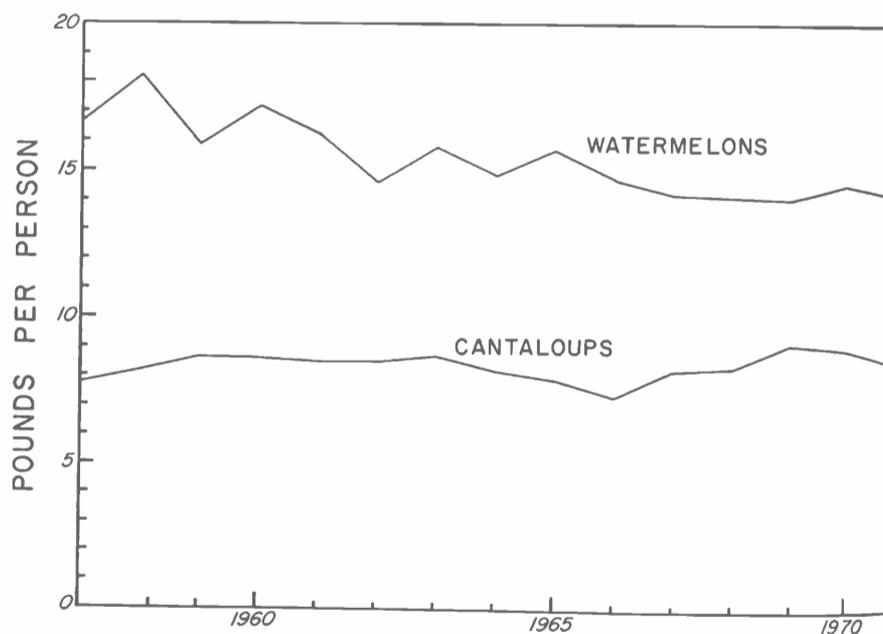
Also, producers in Arizona and other U.S. production areas should keep up-to-date on production and marketing trends of Mexican grown cantaloups. U.S. imports of cantaloups from Mexico increased appreciably in the late 1960s and early 1970s. These imports begin in late December and end in early May just prior to the shipping seasons for Arizona, California and Texas production areas. If Mexican growers extend their production and export-shipping season by a few weeks, this would provide direct competition with U.S. growers.

Production Trends and Comparisons — Since the late 1950s there has not been a definite upward or downward trend in U.S. cantaloup production. In most years, the annual crop has totaled 12 to 14 million hundred-weight. However, there was a very marked decline in the mid 1960s (Chart 2).

California produces half or more of the U.S. cantaloup crop. The California shipping season begins in late May and continues through November.

Arizona is the second ranking state, followed closely by Texas. Arizona-grown cantaloups are shipped in late spring and early summer, and in October and November. The Texas shipping season is from early May through August.

Chart 1. U.S. Per Capita Consumption of Watermelons and Cantaloups (Farm Weight Basis).



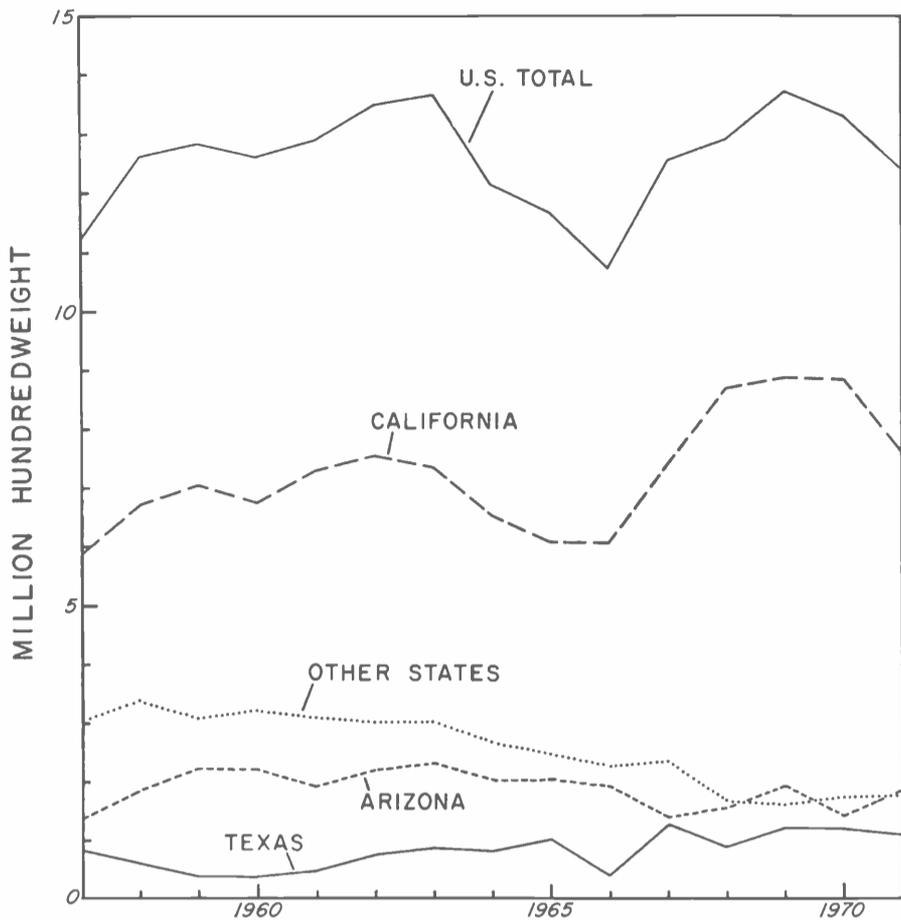
Source: "Vegetable Situation," Econ. Res. Serv., U.S. Dept. of Agriculture, November, 1970, and October, 1972.

In addition to California and Texas, summer supplies are also produced in Colorado, Indiana, Georgia, South Carolina and several other states.

Official statistical data on cantaloup production is summarized for five growing seasons. Trends in produc-

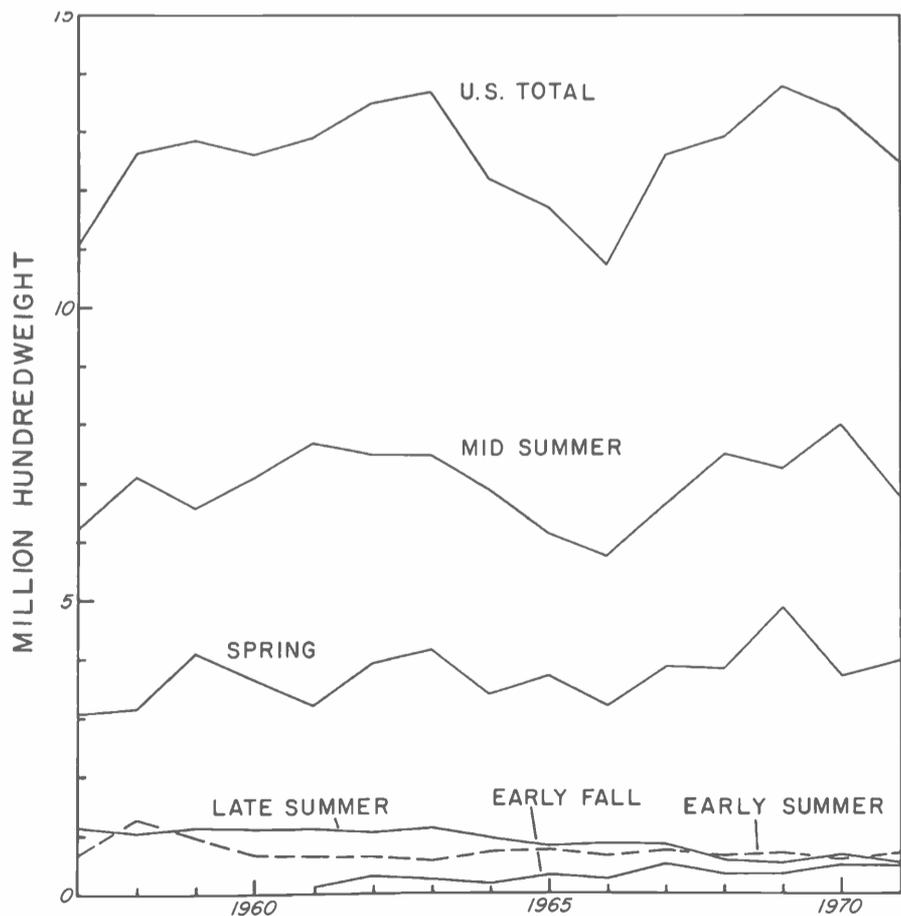
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Chart 2. U. S. Production of Cantaloups, by Major Producing States.



tion for the five designated seasons are summarized in Chart 3. The mid-summer season accounts for half or more of the nation's cantaloup crop, and almost another third of the total crop is grown in the spring.

Chart 3. U. S. Production of Cantaloups by Season.

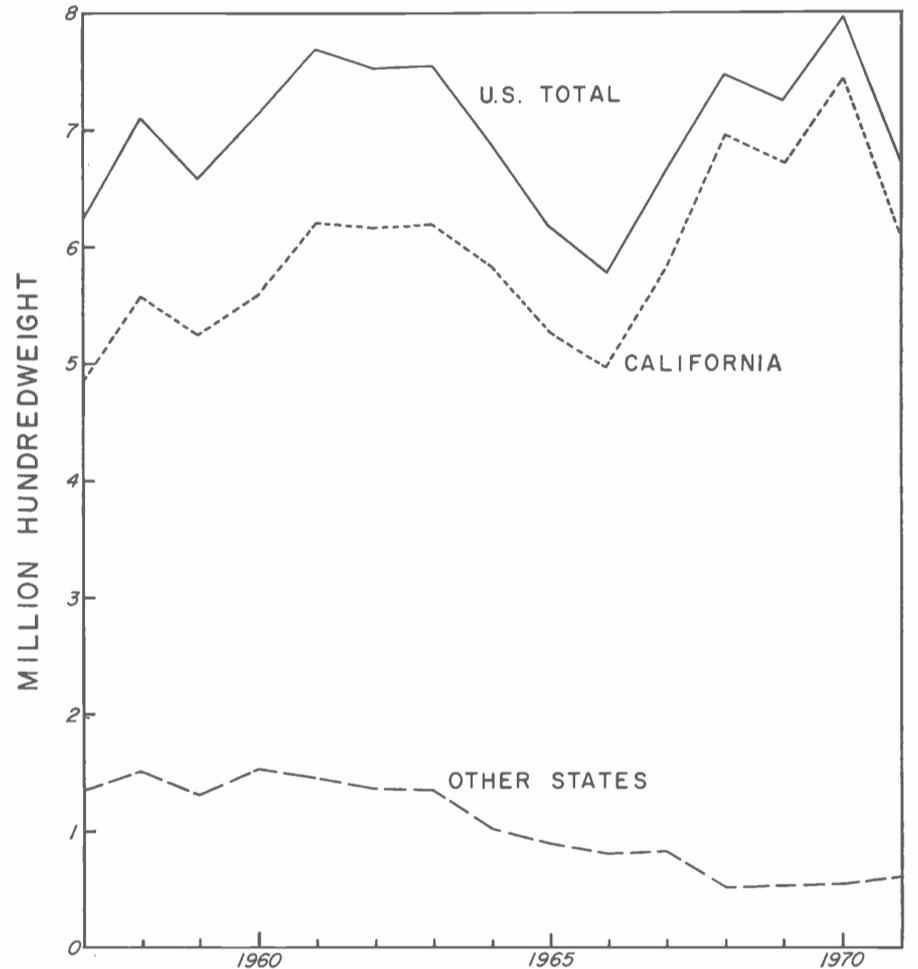


A very large proportion of mid-summer cantaloups is produced in California (Chart 4). In recent years, Indiana and Texas growers are the other major suppliers of mid-summer cantaloups.

For several years Arizona was the principal producing state of *spring* cantaloups. However, beginning in the late 1960s, California's spring cantaloup crops approximated Arizona's crops (Chart 5).

Arizona's spring production declined from 2.5 million hundredweight in 1963 to less than 1.5 million hundredweight in 1967, and since then has remained relatively constant near this level.

Chart 4. U. S. Production of Mid-Summer Cantaloups, by States.



In contrast, California's spring crop has increased from less than a million hundredweight in the mid 1960s to about 1.5 million hundredweight in the early 1970s. Also, there has been a definite upward trend in spring production in Texas.

Although there have been relatively large year-to-year variations in U.S. production of spring cantaloups, the 1957 to 1971 trend has been slightly upward. In view of this national increase, it appears that Arizona has lost some potential spring market volume to California and Texas. This may be the result of one or a combination of several factors, such as production and shipping costs, quality considerations, lack of aggressive merchandising, greater profitability from other crops and increased imports. These and other possible causes should be investigated by grower-shippers desiring to regain and expand

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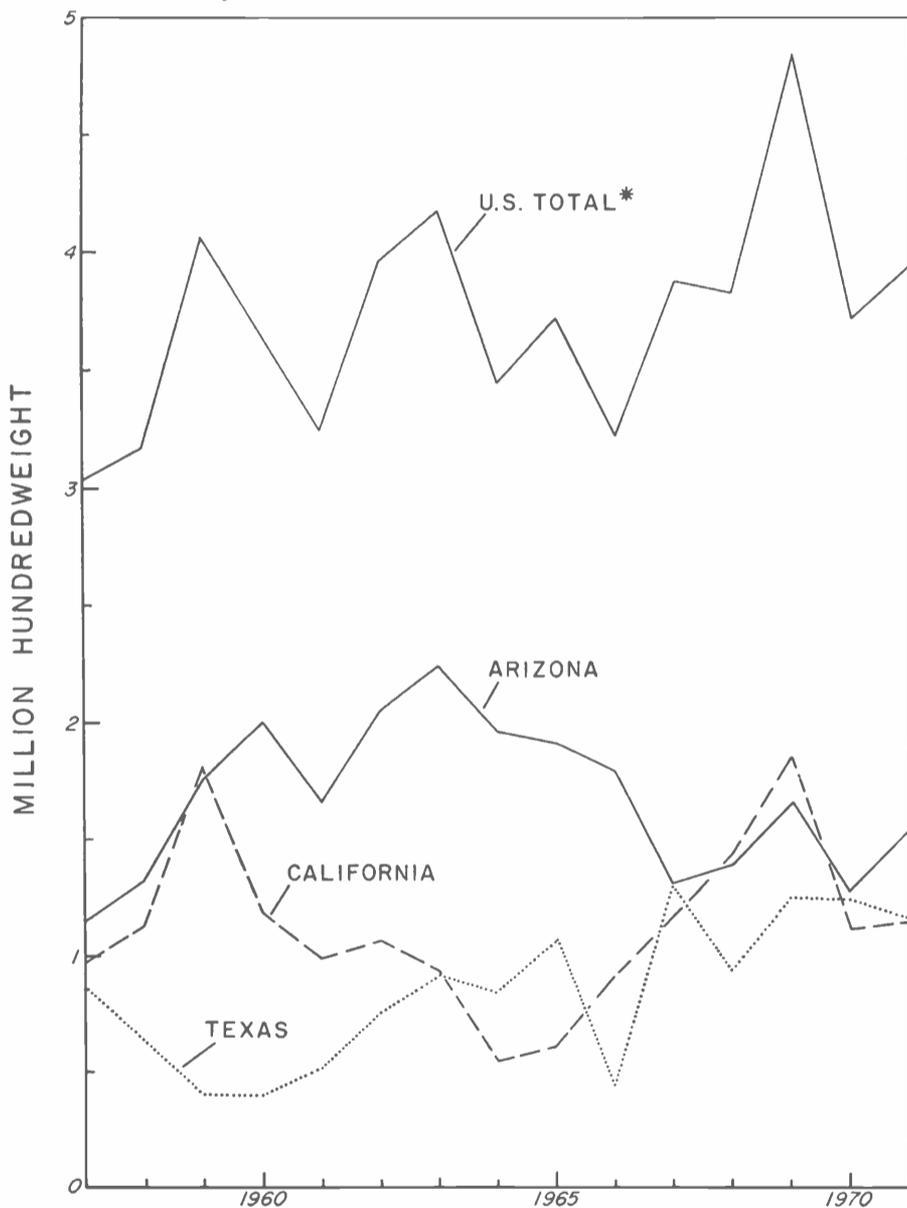
their spring cantaloup markets.

U.S. production of *early summer* cantaloups has totaled less than 1 million hundredweight since the late 1950s (Chart 6). However, production has remained fairly stable near 600-700 thousand hundredweight for the past several years. Almost half of the early summer crop is produced in Georgia, and except in 1969 South Carolina production has ranked second since the early 1960s.

In the late 1950s, Arizona's production of early summer cantaloups exceeded Georgia's output in some years. However, beginning with 1963, Arizona's crop has ranked third, except in 1969.

Early fall cantaloups are produced principally in Cali-

Chart 5. U. S. Production of Spring Cantaloups, by States.



* Includes Florida Production in addition to other three states.

fornia and Arizona. California now accounts for about two-thirds of these melons, and Arizona for one-third. As shown in Chart 3, total *early fall* production has been increasing gradually, but the 1971 total is only about a half million hundredweight.

Late summer cantaloup production areas are located in Colorado, Michigan, Ohio and New York. The combined production during the past 15 years has gradually

declined from about 1.2 million to 0.5 million hundredweight.

Watermelons

Per capita consumption of watermelons in the United States declined from slightly more than 16 pounds in the late 1950s to about 14 pounds in the late 1960s, and has remained near this level up to the present time (Chart 1).

This decline in per capita use, along with increases in imports from Mexico are the principal reasons for the downward trend in U.S. watermelon production (Chart 7). The nation's annual watermelon crop has declined since the late 1950s from approximately 30 to 27 million hundredweight.

Annual U.S. watermelon production data are subdivided into three seasonal categories — late spring, early summer and late summer. Appreciably more than half of the nation's total crop is produced in the early summer season (Chart 7). In 1971 early summer production totaled 16.1 million hundredweight, which was approximately 60 percent of the total U.S. crop of 27.3 million hundredweight.

Approximately 30 percent of the U.S. annual production is grown in Florida and California during the late spring season. In recent years, Florida accounts for almost 90 percent of late spring production.

Late summer watermelons amount to approximately 10 percent of annual U.S. production. Indiana, Missouri, Maryland and Delaware are the principal producing states of late summer melons.

Arizona's watermelon production season is during the early-summer season. However, the Arizona crop amounts to only about 5 percent of the U.S. total early summer production. Approximately 33 percent of early summer watermelons are grown in Texas, and another 16 percent in Georgia. Other principal growing areas are in South Carolina, California, Alabama, Oklahoma, North Carolina, Mississippi and Arkansas.

Opportunities for Arizona growers to expand their market for early summer melons appear to be very limited. Competing production areas throughout most of the southern states are much closer to the large consuming markets in the Great Lakes and northeastern states. Also, California production areas are closer to the large west Coast markets. Transportation is a major marketing cost, and Arizona's more-distant location from large population areas is a disadvantage.

Honeydew Melons

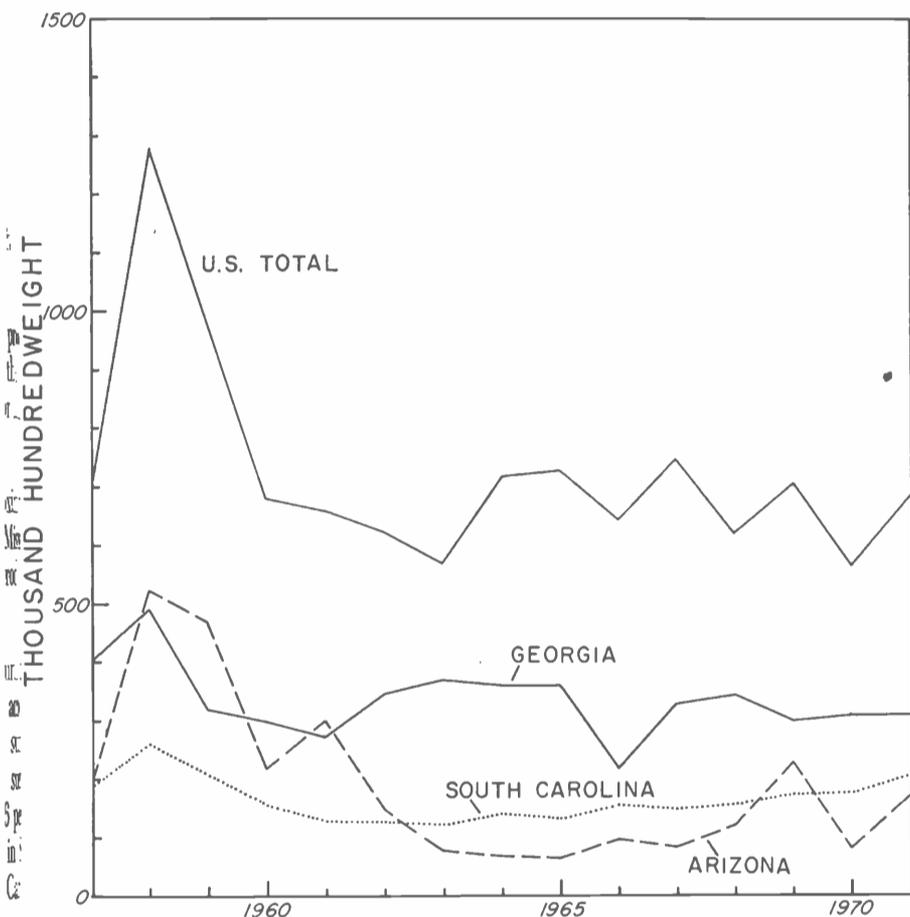
Per capita consumption data for honeydew melons in the U.S. is not readily available, but it would be appreciably less than for cantaloups and watermelons. However, on the basis of production trends there is evidence that U.S. per capita use has risen in the early 1970s, or that exports have increased.

From the late 1950s to the late 1960s total annual U.S. production of honeydew melons increased at a rela-

tively slow and irregular rate (Chart 8). During this period, the total annual crop varied from about 1.2 to 1.5 million hundredweight. But, for 1969, 1970 and 1971, production has totaled almost 2 million hundredweight.

Almost 80 percent of the nation's honeydew melons are grown during late summer in California. Approximately another 15 percent are produced in Texas, in the spring, and 5 percent in Arizona during early summer. Until the late 1960s, small quantities of spring honeydews were produced commercially in California, but Texas is now the principal producing area.

Chart 6. U. S. Production of Early Summer Cantaloups, by States.



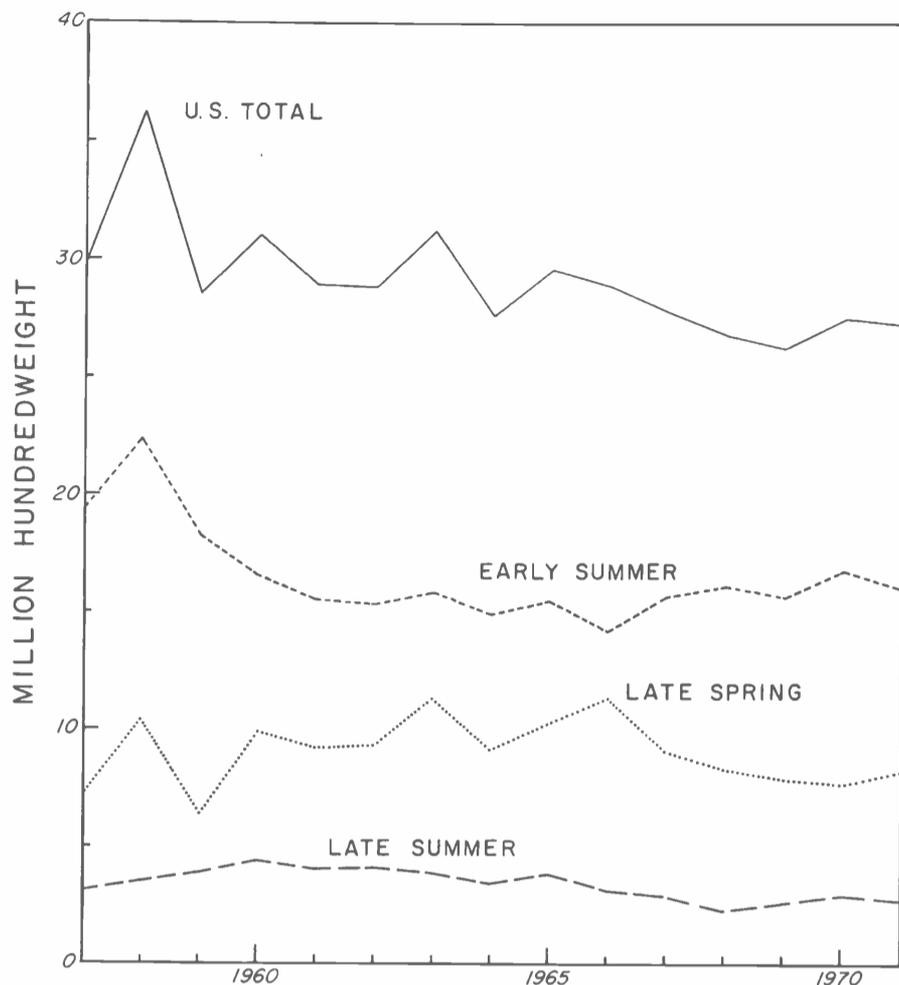
Early summer production of honeydew melons in Arizona remained relatively stable near 10 million pounds throughout most of the 1960s. But, beginning in 1969, the crop has almost doubled in size.

Market Expansion Potential

Domestic U.S. Market — There is ample historical evidence that the early spring to early fall U.S. market for melons will continue to be supplied by U.S. producers. In addition, the winter market will likely be supplied by imports from Mexico. At the present, it does not appear that Mexican melons will directly compete with U.S. melon crops, because of the differences in production-shipping seasons in the two countries.

From the standpoint of Arizona and other U.S. melon growers, competition from fresh fruits appears to be a major roadblock to expanding U.S. melon consumption. More aggressive promotion might increase sales volume,

Chart 7. U.S. Production of Watermelons, by Seasons.



but the costs of increased selling efforts must be more than offset by the increase in dollar sales.

Foreign Melon Markets — New technology in packaging and transportation, along with rising incomes in some foreign nations may make it possible for U.S. melon growers to develop new and further expand existing overseas markets.

With regard to honeydew melons and cantaloups, one authority's appraisal of possibilities were recently summarized as follows: "Most of the Japanese importers, wholesalers, and retail association representatives believe there is a market for U.S. honeydew melons in Japan throughout the U.S. marketing season. At the same time, they feel the potential is less good for cantaloups, although the problems they mention appear to be ones that can be overcome without too much difficulty.

"For both products, the challenge is to adapt to Japanese tastes and ways of doing business. Present packaging of U.S. honeydews appears satisfactory, but Japanese complaints of a lack of uniformity and their preference for a high sugar content need to be considered. The sweeter, and thus more mature, melons have a shorter shelf-life than those harvested earlier. However, with fast container ships, it should be possible to supply melons at an acceptable stage of maturity.

"Complaints about U.S. cantaloups have centered around the size of crates, which contain about 80 pounds of melons and are reportedly much too large for the Japanese market; lack of uniformity in sizing of melons; bruising of melons in transit; and improper maturity.

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Arizona Melons

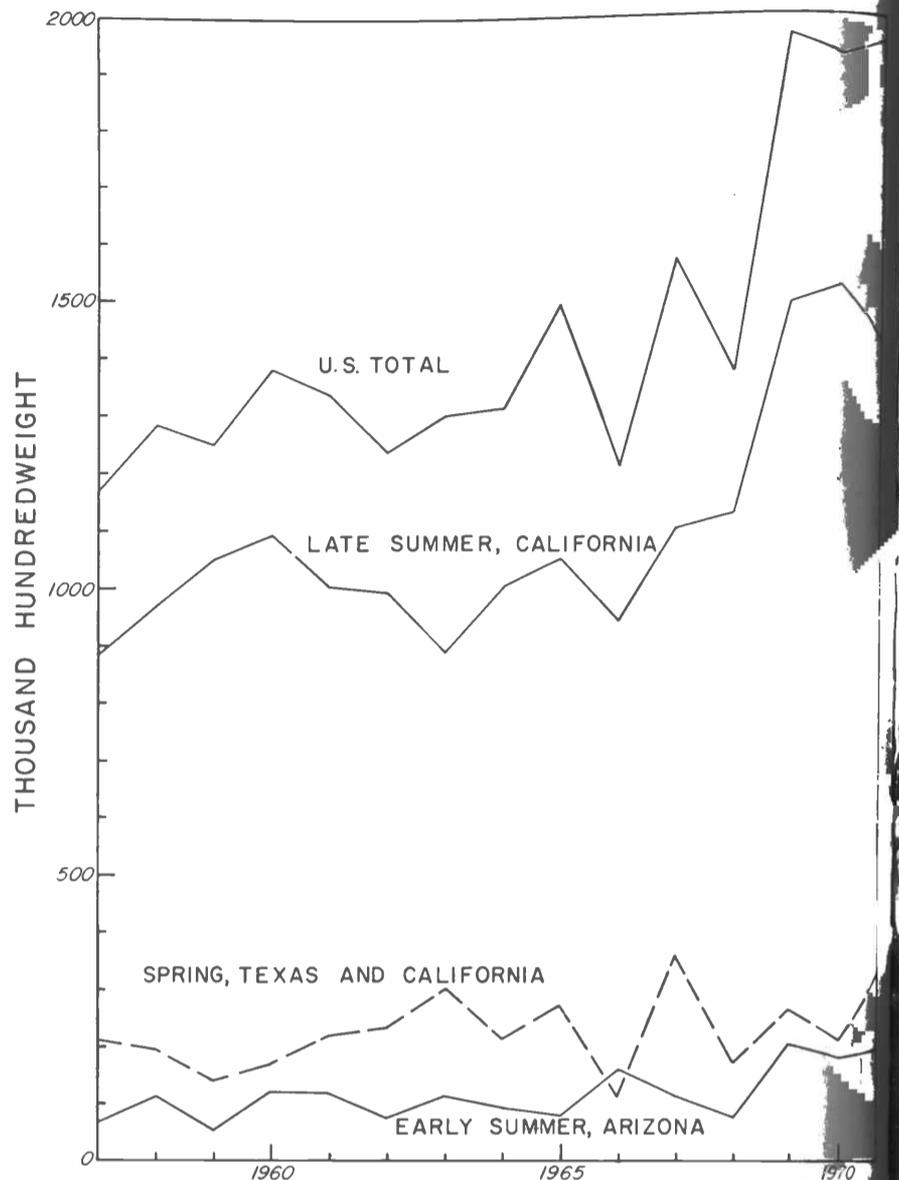
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“Despite Japanese doubts about cantaloups, it appears that these may actually be easier to sell in the mass market than honeydews, partly because of the larger U.S. production.”¹

In a study of the feasibility of exporting watermelons to England researchers concluded that “there is a definite market potential for exporting good-quality watermelons to England and, perhaps, to other European countries as well. However, the melons must be of high quality, not overmature, and packed in a fiberboard box of sufficient strength to protect the melons in transit. Palletizing and weighing each box of watermelons was requested by the receiver of these shipments. Other receivers may not want their shipments palletized, but U.S. shippers should comply with the requests of the receivers, as long as the receivers are willing to pay for added services. Retailers should be encouraged to sell melons, sliced or cut, because European consumers are accustomed to buying small quantities at a time.

From the beginning of the U.S. watermelon season, which occurs approximately April 15 in Florida and Texas, until July 1 (and perhaps later, depending on season, both in the United States and in other watermelon-exporting countries), the market for watermelons in England and possibly in other northern European countries such as the Netherlands, Germany, Sweden, etc., is good, because competition from other watermelons or other types of melons is relatively light. In southern Europe, harvest of watermelons and other types of melons does not begin until July 1. Other watermelons or melons are imported from Africa and South America during Europe’s off-season.”²

Chart 8. U. S. Production of Honeydew Melons by Major States and Seasons.



Arizona melon growers should not overlook these and similar potential markets. These opportunities should be thoroughly and carefully evaluated, and rechecked periodically. New technologies may change the feasibility of developing, supplying and servicing new markets — in foreign countries and the United States.

Footnotes

¹ A. Clinton Cook, “Japan is Growing Market for U.S. Fruits and Vegetables,” *Foreign Agriculture*, Vol. XI, No. 4, *Foreign Agricultural Service, U.S. Department of Agriculture*, January 22, 1973, pp. 3-5.

² Lawrence A. Risse and Russell H. Hinds, Jr., *Feasibility of Exporting Watermelons to England*, ARS 52-71, *Agricultural Research Service, U.S. Department of Agriculture*, March 1972, p. 11.

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to: