FACT SHEET

L-903

KEYS TO PROFITABLE PRODUCTION OF CANTALOUPES AND HONEYDEW MELONS

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Cantaloupes were valued at $14.5 million in 1974 and accounted for 8.5 percent of the Texas vegetable income. Acreage grown in 1974 included 9,300 as a spring crop and 5,000 as a summer crop, or a total of 14,300 acres. Previous year's acreage amounted to 17,800 in 1973, and 19,200 in 1972. Harvested acreage equaled 90 percent of that planted.

Honeydews in Texas were valued at $2.0 million or 1.2 percent of the vegetable value in Texas. In 1974, 2,300 acres were grown compared to 2,400 in 1973 and 2,700 in 1972. Harvested acreage was 85 percent of that planted.

Climatic requirements. Cantaloupes, a warm-weather crop, grow best on well-drained sandy loam or silt loam soils in climates that are hot and dry. Leaf diseases cause severe damage in the humid regions of Texas, which limits production in these areas. Supplemental irrigation is necessary for maximum production.

Areas of production. Cantaloupe production is divided into spring and summer crops. The spring crop is planted in February and March in South Texas and the summer crop from March to June in the northern two-thirds of the State. Harvest begins in South Texas in early May, with the bulk occurring in late May and June. Harvest in the northern two-thirds of the state begins in the last half of June and continues into late September. Figure 1 shows 1974 shipments of Texas cantaloupes by months in carlot equivalents (500 crates per car). Figure 2 shows shipments of honeydews.

Crop rotation. A crop rotation in which cantaloupes, cucumbers, watermelons or squash are not grown more often than once every 3 years helps to reduce losses from diseases caused by soil-borne fungi, bacteria and nematodes.

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Land preparation. Plowing, disking (often re-disking to break clods) and landplaning to maintain correct slope for irrigation and drainage are important in preparing land for cantaloupe production. The land is then listed into 40-inch rough beds, fertilized (phosphorus only), and every other row is planted.

Fertilization. A cantaloupe or honeydew crop, in general, requires 60 to 80 pounds of nitrogen and 90 to 100 pounds of phosphorus per acre. Do not apply potash unless soil test reports show a very low amount is available to the crop. Band phosphorus fertilizer directly beneath the seed and sidedress the nitrogen in split applications. The first application of nitrogen should be made at the two- to four-leaf growth stage.

Varieties. Perlita dominates the varieties grown in the Rio Grande Valley and Winter Garden areas because of its resistance to powdery mildew. Perlita is tolerant to downy mildew, but susceptible to Alternaria leafspot and gummy-stem blight. Dulce is a later maturing variety resistant to both powdery and downy mildew. Although it has poor disease resistance, PMR45 is also grown in the Winter Garden and Trans-Pecos areas.

The TAM-Dew honeydew variety is resistant to powdery and downy mildew and is the dominant honeydew grown in the Rio Grande Valley and Winter Garden areas.

Planting. Plant cantaloupe seed at the rate of 1½ to 2 pounds per acre, in single drills on alternate 40-inch beds or twin rows 14 inches apart on top of alternate 40-inch beds. Drill seed at a depth of ¾ to 1½ inches. Do not sow cantaloupe until the soil temperature rises to 68 degrees F. at the 2-inch depth. When one to two true leaves appear, thin the plants to 6 inches apart in the row. About 2 to 3 weeks after the first thinning, remove every other plant, leaving a final plant spacing of 12 to 14 inches. Any planned sidedressing of fertilizer

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should be made after the final thinning. Then break out the skip rows to form wide flat beds with the irrigation furrows on 80-inch centers.

Weed control. Prefar is the safest chemical herbicide available for weed control in cantaloupes. When Prefar is used, hold mechanical cultivation to a minimum, and, if needed, keep it shallow. Treflan or Dacthal, which control only germinating weed seeds, may be applied as a post-emerge lay-by application (last cultivation). Both Prefar and Treflan require soil incorporation 1 or 2 inches deep for best results. For detailed information on herbicide application, see MP-1061, *Chemical Weed Control in Horticultural Crops,* available from county Extension agents.

Irrigation. Irrigate as needed during early fruit set and development up to time of netting or first ripe fruit. Apply very light or no irrigation water once the melons begin to ripen.

Pollination. Use at least one good strong colony of honeybees for every 2 to 3 acres of melons. To assure good pollination and fruit set, locate the hives on the windward side of the field when the first blooms appear.

Pests. Leaf miners and aphids are the most serious insect pests of melons in Texas. These insects normally must be controlled during early growth stages. Other insects, such as cucumber beetles, wireworms, spidermites and pickle worms, may cause injury. For control measures, see MP-675, *Guide for Controlling Insects on Commercial Vegetable Crops,* available from county Extension agents. Apply insecticides in late afternoon to avoid injury to bees.

Diseases. Cantaloupe and honeydew diseases are controlled best by a combination of several practices, which include growing resistant varieties, crop rotation and preventive fungicide applications. Powdery mildew and downy mildew are controlled best by growing resistant varieties such as Perlita, Dulce or TAM-Dew supplemented by a preventive fungicide program starting at blooming time and continuing at 10 to 14 day intervals,

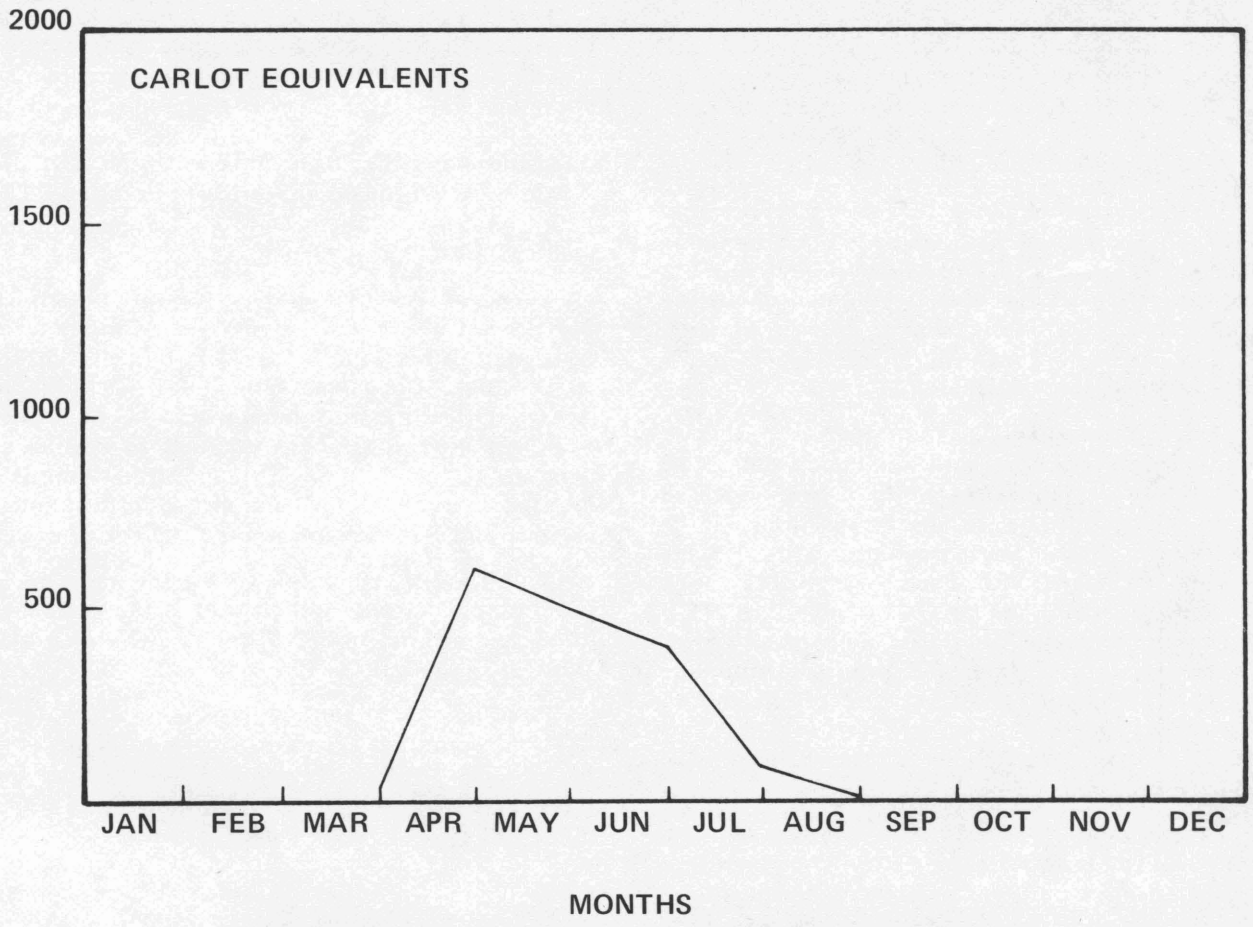

Fig. 1. CANTALOUPES – TEXAS SEASONAL MOVEMENT IN CARLOT EQUIVALENTS BY MONTHS FOR 1974. (Source: Market News, USDA)

depending on weather conditions. For powdery mildew, Karathane (½ to 1 pound per acre) is recommended; for downy mildew control, use maneb (2 pounds per acre plus spreader sticker). Maneb applications also control alternaria leaf spot, anthacnose and gummy stem blight. Crop rotation will reduce losses caused by nematode and Fusarium wilt.

If melons are to be planted in nematode-infested land, soil fumigation before planting may be required. No adequate control measures have been developed for viral diseases such as tobacco ring spot virus, curly top and mosaic.

Harvesting and handling. Cantaloupes usually are hand harvested every other day during the first week of harvest and every day during the second week. Most melons are bulk hauled to a shed for grading and packing. Some melons are field graded, bulk loaded into trucks and moved directly to retail markets near enough for overnight delivery.

Grading and packing. Grading usually consists of removing inferior melons and sorting the melons as to size and maturity. Some cantaloupes are waxed. The melons are packed according to size, with 36 to 45 melons to the crate being the most popular pack. Sizes may range from 27 (large melons) to as many as 60 melons per crate. Extreme care should be taken during the harvesting-packing-shipping period to avoid bruising. Field heat is removed from the fruit by emersing in ice water baths or by pre-cooling in 40° F. rooms prior to loading in refrigerated railcars or trucks.

Marketing. Most Texas cantaloupes are sold on the open market at prevailing prices based on a supply-demand system.

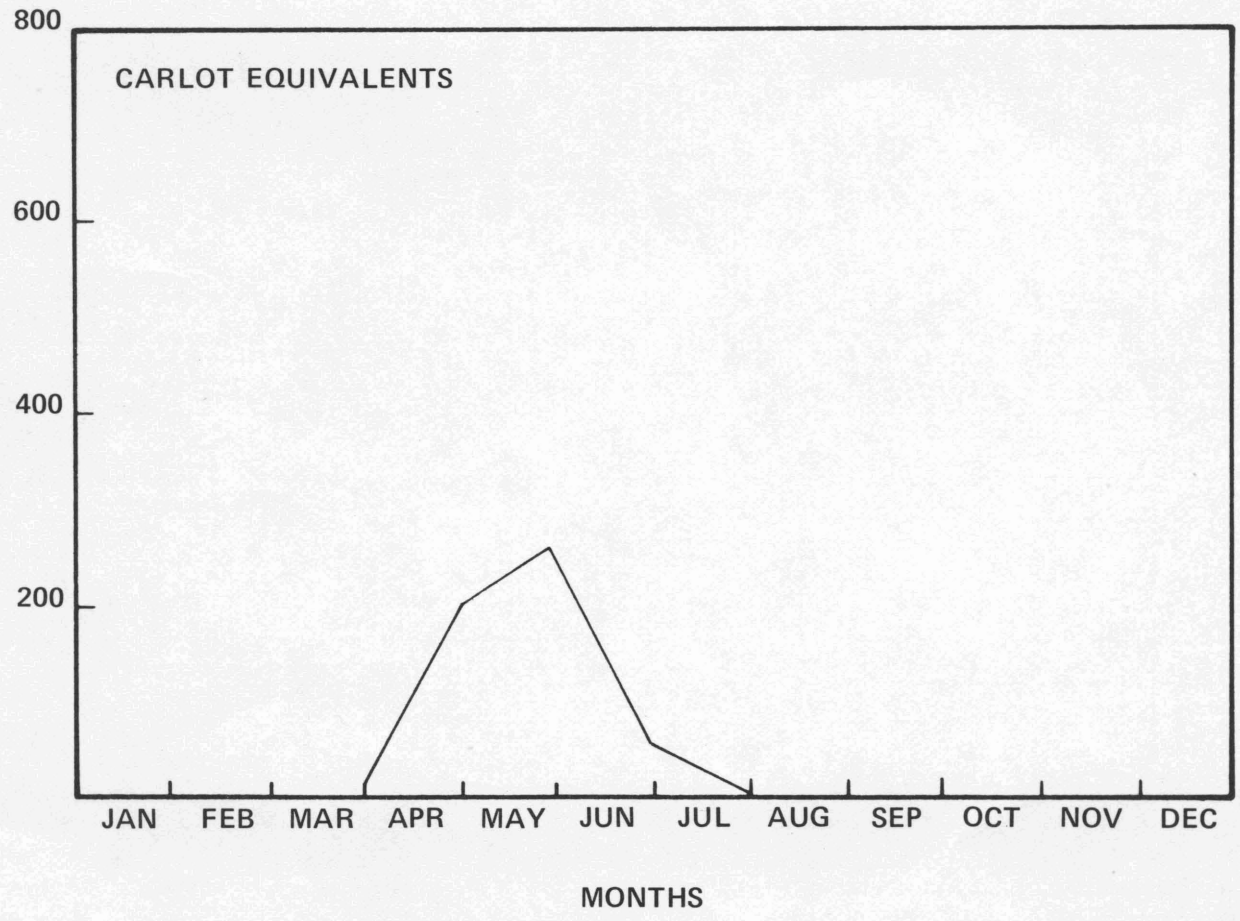

Fig. 2. HONEYDEWS – TEXAS SEASONAL MOVEMENT IN CARLOT EQUIVALENTS BY MONTHS FOR 1974. (Source: Market News, USDA)

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7M—1-76, Revised

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