GULFCOAST—a sweet cantaloupe for the produce chain store market

JOSEPH D. NORTON*

GULFCOAST, a new cantaloupe variety adapted for growing in Southeastern United States, has been released by Auburn University Agricultural Experiment Station. It has relatively high resistance to downy mildew (*Pseudoperonospora cubensis*) and powdery mildew (*Erysiphe cichoracearum*) and high resistance to gummy stem blight (*Mycosphaerella citriullina*). The variety produces high yields of excellent quality fruit suitable for packing for the commercial market.

Prevalence of foliar diseases, particularly downy mildew and gummy stem blight, and susceptibility of existing varieties to these diseases has discouraged the growing of cantaloupes in the South.

Introduction of the high quality, disease resistant variety Southland (3) in 1970 demonstrated that high quality fruits could be produced in this humid region. Because of its large fruit size, Southland is not suitable for packing for the commercial market. However, Gulfcoast produces smaller fruits that meet needs of the commercial market.

ORIGIN

Gulfcoast originated at Auburn from a program of backcrossing and inbreeding to obtain resistance to gummy stem blight, downy mildew, and powdery mildew. It is an inbred line from the cross AC-63-11 x PI 140471, as shown by the pedigree on page 2. Following the cross, a backcrossing and disease screening program was followed with selection of dis-

* Associate Professor, Department of Horticulture.
Development of Gulfcoast

AC-63-II  P1-140-471

F₁  1962
   Greenhouse

AC-63-II  F₂

F₁  1963
   Greenhouse

AC-63-II  F₂

F₁  1964
   Greenhouse

F₂, F₃  1965, 1966
   Field

F₄, F₅, F₆, F₇
   Field

AC-67-14

Gulfcoast  1970
   Field
ease resistant seedlings that produced high quality fruit.

**DISEASE RESISTANCE**

Gulfcoast has been rated for resistance to gummy stem blight, downy mildew, and powdery mildew in tests at several locations in Alabama and other Southern States. The high level of resistance to gummy stem blight, secured from PI 140471 (2,4), was incorporated into the breeding lines through a screening program that utilized an incubation chamber and greenhouse to eliminate susceptible plants from the populations. Resistance to downy mildew and powdery mildew was obtained from Georgia 47 and Florisun through AC-63-11 (1). Gulfcoast plants exhibited excellent general disease resistance in field plantings during 1967-70.

**FRUIT**

The fruits of Gulfcoast are mostly round or round-oval in shape, although many are more rounded than round-oval. They are slightly ribbed and well covered with a medium net. Fruit size varies at different fertility levels and in different production areas, but averages close to 2½ pounds with a diameter of 5-6 inches, see table. Adequate size for the commercial pack of 24 and 27 size melons may be assured with adequate fertility and irrigation. Since this is smaller than "Jumbo" melons, the grower should either market them with wholesale produce buyers or with other outlets for high quality fruit.

The fruit are very firm and adapted to handling in commercial markets. Flesh is firm at the full slip stage, but it softens to an excellent condition for dessert quality in 3 to 4 days.

The flesh is thick, deep orange in color, and of excellent flavor and aroma. Seed cavity is small. The fruit matures in 70-75 days, approximately the same as Hales Best Jumbo and Southland.

Gulfcoast has been grown as AC-67-14 in trials at Auburn and at a number of substations of the Auburn University Agricultural Experiment Station, in the Southern Cooperative Cantaloupe Variety Trials in other Southeastern States, and in demonstration plantings by commercial growers.

Gulfcoast compares favorably with established varieties in shipping quality and edible quality as indicated by taste and soluble solids, see table.

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LITERATURE CITED


(3) --------------. 1970. Southland—A Large Cantaloupe for the South.
