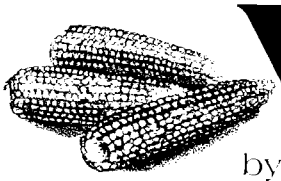
Sweet Corn Varieties



by D. N. Maynard

Introduction

Maize, or corn, is thought to have evolved from its wild ancestors in Mexico and Central America; it became a staple food for the American Indians in pre-Columbian times. Ancient sweet corn types have been found in the Andean zone of Peru. The Iroquois in upper New York State also grew a sweet corn whose kernels turned blue as they matured.

Maize was first classified according to the variation in the carbohydrate stored in the endosperm. In sweet corn, the sugary *(su)* or sweet gene on chromosome 4 prevents or retards the normal conversion of sugar into starch during endosperm development, resulting in a sweet taste. This sweet corn is considered a high-quality vegetable when used in the milk stage at 70 to 80% seed moisture, depending on the endosperm type.

Florida continues as the nation's leading producer of fresh market sweet corn. Florida produces 80 percent of the winter (January to June) United States fresh market sweet corn, but most of the summer/fall production for fresh market occurs in the Northeast United States. Florida production by area and average yields are shown in Table 1.

Table 1. Sweet Corn: Acreage and Production for 1987-88.

Area	Acreage Planted	Yield per Acre Crates
North	2,400	195
Central	15,300	220
Everglades	26,000	240
Southeast	15,400	235
Total	59,100	Average 232

Selection factors

Variety selection, often made several months before planting, is one of the most important decisions made by the grower. Failure to select the most suitable variety or varieties may lead to loss of yield or market acceptability.

The following characteristics should be considered in selection of sweet corn varieties for use in Florida:

Yield. The variety selected should produce yields equivalent to the best varieties available. The state average yield for sweet corn in the 1987-88 crop year was 232 crates per acre. Yields per acre varied considerably among various production areas as shown in Table 1. Potential yields are 400 crates per acre based on 24,000 plants per acre and 60 ears per crate.

Disease resistance. When available, genetic resistance to disease is the least expensive means of disease control. Providing that the variety selected has other desired characteristics, it would be useful if resistance to northern leaf blight and southern leaf blight were included.

Horticultural quality. A multitude of plant, husk, and ear characteristics are included in this category. Among those to be considered for the plant are ability to germinate in cool soils, plant vigor, and ability to withstand lodging. Husk color should be dark green with good flag leaves and tip cover. Some ear characteristics to be considered are tip fill, silk color, and kernel tenderness and sweetness.