

phate, and other fertilizers. In many situations, adequate amounts of S can be supplied from the S-laden irrigation water. In situations where the soil is found to be deficient in S or Mg, about 30 to 40 lb. of either nutrient can be added as fertilizer.

**Micronutrients.** Nutrients such as copper (Cu), manganese (Mn), zinc (Zn), iron (Fe), and boron (B) are needed in very small quantities and there is a fine line between adequate and toxic amounts. Most micronutrients, except B, do not leach from the soil and can build up in old land. Soil testing is a tool to predict if a response to added micronutrients will occur. Small amounts of micronutrients are added to the foliage through some of the commonly used fungicides. If the soil alone cannot supply the CNR for certain micronutrients, then the fertilizer should supply about 3 lb. Cu per acre, 3 lb. Zn per acre, 6 lb. Mn and Fe per acre and 1 lb. B per acre.

Shotgun foliar applications of multiple micronutrients are to be avoided because research has shown decreases in yield can occur in several vegetables. Occasionally, foliar application of certain micronut-

rients such as Fe or Zn might be justified to correct a deficiency where high pH soil ties up these nutrients.

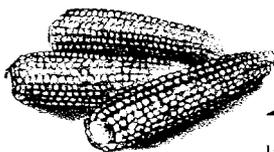
**Plastic mulch.** In some areas of the state, sweet corn is grown on full-bed mulched culture with two rows of sweet corn on a 30- to 36-inch bed top. In this system, all P and micronutrients, and about 10 to 20% of the N and K are incorporated into the bed soil. The remaining N and K fertilizers are banded in a trench in the center of the bed. Soluble sources of N and K are used for the main banded N.

In the mulch system, supplemental N and K additions can be made by a liquid injection wheel. This implement injects liquid fertilizer into the bed by piercing the mulch.

**Summary.** The above information is a general guideline to fertilization of sweet corn in Florida. More detail can be obtained from Circular 225C, *Commercial Vegetable Fertilization Guide*, and Circular 805, *Commercial Vegetable Crop Nutrient Requirements*.

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# Pest



# Management

by W. M. Stall, F. Johnson, and T. Kucharek

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## Weeds

Weeds reduce yield and quality of sweet corn by direct competition for light, water and nutrients in the soil. Weeds may also harbor insect and disease pests that attack corn. During 1975-1979, the estimated average annual losses due to weeds in sweet corn in the United States, were 1,460,000 cwt for fresh market sweet corn and 185,000 cwt of sweet corn for processing.

Historically, the major reason for corn being grown in rows is weed control. Row width was dictated by the size width of horses needed to pass between the rows pulling a cultivator.

Mechanical cultivation of sweet corn is still widespread. The initiation of the use of selective herbicides some 40 years ago in corn has decreased the number of cultivations needed per season. This has substantially lowered the fossil fuel energy used in sweet corn production. Many sweet corn fields now receive one or no cultivations at all. Much of the cultivation used is to reduce surface crusting or to control weeds resistant to or not controlled by the herbicide combinations selected. There is at the present time a wide selection of herbicides that effectively control most weeds.