Introduction

Field corn, *Zea mays,* is a staple in the diet of many. It is consumed by humans as well as by livestock. It is eaten as a vegetable or a cereal, and is a key ingredient in many food preparations. Corn, in many countries, features prominently in the animal feed industry.

Boiled corn, is popular in many Jamaican diets, and is now common place in our local cuisine.

The crop is quick growing and is grown on a wide range of soil types, but prefers soils which are deep and free draining.

The Variety

The MDII field corn is a yellow dent variety which was developed here in Jamaica by E.R.H Martin and Duvall in 1975. Its superior quality at the time allowed for easy adaptation into many farming systems.

When harvested at 'milk stage', 10 – 12 weeks after planting, the variety compares well with most bred sweet corn varieties. Its cobs average seven (7) inches in length and feature an average of 11kernel rows.

Site Selection

Select soils that are free draining. Corn cannot withstand flooding.

- Avoid swamps or very stony areas
- A soil with fair moisture holding capacity and slightly acidic (pH 6.5 to 7.0) is ideal.

Seed selection

Select only clean, viable seeds. Low plant counts and poor space management give rise to less that optimum returns and create additional weed management concerns.

Land Preparation

Plough to a depth of at least 20-25 cm (8 to 10 inches) to facilitate aeration and root room development. The planting of corn lends itself well to the practices of minimum tillage and fits well in many crop rotation schedules.

Crop Establishment

Plant seeds in moist soil at a depth of 3-5 cm. Place seeds at 30 - 45 cm (12 – 18 inches) apart in rows, which are 75 cm apart. This will account for a population of just over 29,000 plants per hectare (single density).

A double density population is preferred, as it guarantees greater and more reliable returns.

Crop Care

Fertilizer requirement

Farmers are advised to follow the guides given by the findings of a soil analysis. Each soil type has a different nutrient status and should be treated as such. Corn responds to high fertility. Organic manure, when used, gives outstanding result.

In the absence of a proper soil analysis we suggest that two applications of fertilizer be made as follows:

- At planting or at 2 weeks after germination apply 20 to 28 g of 11.22.22 (NPK) per plant.
- At the onset of flowering (6 to 7 weeks after planting) Nitrogen, present in Sulphate of Ammonia may be banded at 20 to 28 g per plant.

Ensure that there is adequate soil moisture at fertilizer application.

Irrigation

The MDII corn does not tolerate drought stress; neither can it withstand waterlogged conditions. It is however critical that its water needs are met throughout the crop growth cycle.

Particular attention must be given to irrigation of the crop at the time of planting, at flowering (tassel/silking), during cob development as well as at the time of each application of fertilizer.

Pest control

Insect control

The control of insects on Sweet corn is the most important economic concern. The damages brought on by the fall armyworm, *Spodoptera frugiperda*, and the corn earworm *Helicoverpa zea*, are of special importance.

Poor management of these lepidopteron species can result in serious economic losses.

A worm-damaged cob has no value.

The practices of monitoring, of scouting for early pest detection and the prudent use of recommended contract and stomach poisons have proven adequate to guarantee profitable returns.

Particular attention must be paid to timing of application and the manner in which pesticides are administered. Stomach poisons and contact pesticides, such as Malathion® and Sevin® have proven adequate in controlling the common pests.

Organic formulations such as Dipel® have also proven very effective in the control of Lepidoptera, only that the 'worms' have to be small at the time of application.

There are three critical periods when infestations tend to peak; at the onset of tasseling (the production of male flowers), at silking, and later at cob development.