



HONDURAN FUNDATION FOR AGRICULTURAL RESEARCH

PLANTAIN FHIA-21

*A high-yielding plantain for national markets,
resistant to Black Sigatoka fungus*



Banana and Plantain Program

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INTRODUCTION

The hybrid FHIA-21, developed in 1987, is a French type plantain. Presently it is being grown commercially in Cuba, Honduras, Nicaragua, Guatemala, Venezuela, Ecuador, Peru, Colombia and other countries. Green fruits may be eaten boiled or fried; ripe fruits are eaten fried, baked or microwaved.

CHARACTERISTICS

Morphology

The plant height is between 3.5 and 4 m it has decumbent leaves and a glossy stem. The bunch hangs slightly inclined and is asymmetric. The green fruits are rather straight to the flower end, which is somewhat sharp-pointed.

Its peel can be easily removed, but it is slightly more susceptible to cuts and bruises than “False Horn” plantain.

Phenology

The time from planting to flowering is between 240 and 280 days. The first production cycle requires 85 to 100 days from flowering to harvest. The second flowering occurs between 540 and 570 days after planting.

Production

The net bunch weight without the stalk is between 22 and 27 kg, and the number of fruits per bunch varies from 120 to 150. However, it is recommended to leave only 5 hands per



bunch for adequate development of fruit size. In that case, there will be between 70 and 80 fruits per bunch.

The weight of one plantain is between 250 and 350 g. When no Sigatoka control is carried out, the total yield of FHIA-21 is about twice as much as that obtained from “False Horn” plantain..



FHIA-21 and False Horn

Resistance features

The hybrid is resistant to the Black Sigatoka fungus and the Panama disease fungus, but it is susceptible to both *Radopholus similis* and *Pratylenchus coffeae*, the two most important nematodes.

AGRONOMICAL ASPECTS

Agro-ecological requirements

FHIA-21 is tolerant to sub-optimal growing conditions, but it is recommended to select non-flooding, well-drained areas that are easily accessible throughout the year.

Altitude: FHIA-21 grows well at altitudes from 0 to 1200 meters above sea level.

Soils: it requires loamy soils.

Rain: should be about 2000 mm per year.

Temperature: the optimum mean temperature is 28 °C.

Crop Management

Plant densities of 1600 plants per hectare are recommended.

Fertilizer requirements should be based on the results of a soil analysis. Generally, under the prevailing conditions in the Sula Valley (Honduras), annual applications of 300 kg of nitrogen and 250 kg of potassium per hectare are recommended.

Deleafing should be carried out every 4 weeks, eliminating the doubled leaves and removing the infected tips of the leaves. Young shoots have to be removed every 8 weeks. The removal of “sister shoots” should be done 4 months after planting.

Once all flowers have appeared, it is necessary to remove a number of hands, leaving only 5 per bunch if the fruits are meant for export, and up to 7 hands if the product is to be processed into chips for local consumption. At the same time, the male inflorescence should be removed in order to avoid the occasional formation of seed. Simultaneously, propping should be carried out and colored ribbons should be attached to the bunches in order to control harvest age. Harvest takes place 85-100 days after flowering.

Post-harvest

The ripening process of FHIA-21 is faster than for “False Horn” plantain; therefore it is important to establish the proper age for harvesting. As is the case with export bananas, FHIA-21 has to be harvested using a system of age control of the bunches. If exported it should be vacuum packed (Banovac) in order to extend green life.