



HONDURAN FUNDATION FOR AGRICULTURAL RESEARCH

# PLANTAIN FHIA-20

*A plantain resistant to the Black Sigatoka fungus  
and twice as productive as "False Horn" plantain*



## **Banana and Plantain Program**

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## INTRODUCTION

The hybrid FHIA-20, developed in 1989, is a French type plantain. Presently it is being grown commercially in Honduras and other countries. Green fruits may be eaten boiled or fried. Ripe fruit is eaten fried, baked or micro-waved.

## CHARACTERISTICS

### Morphology

The plant height is between 3.2 and 4.5 m it has decumbent leaves and a dark stem. The bunch hangs vertically and is asymmetric. The green fruits are straight at the distal part and the flower end is shaped like a bottleneck.

The FHIA-20 plants are tall and therefore prone to lodging in high winds.

### Phenology

The time from planting to flowering is between 300 and 380 days. The first production cycle requires 84 to 91 days from flowering to harvest. The second flowering occurs between 528 and 700 days after planting.

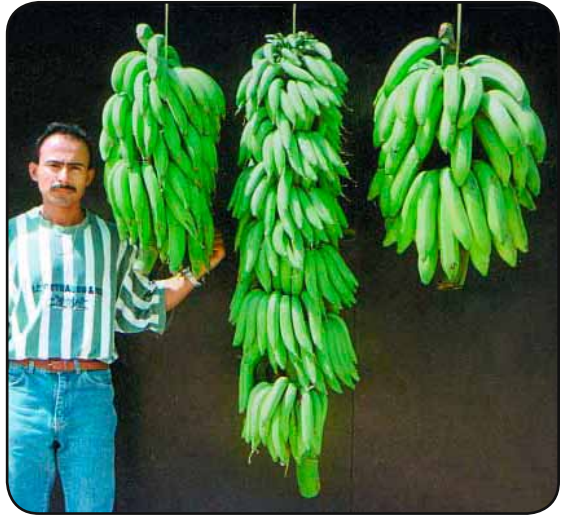


FHIA-20 bunch.

### Production

The net bunch weight without the stalk is between 20 and 30 kg, and the number of fruits per bunch varies from 130 to 160. However, it is recommended to leave only 5 hands per bunch for adequate development of fruit size. In that case, there will be between 65 and 80 fruits per bunch.

The weight of one plantain is between 250 and 370 g. When no Sigatoka control is carried out, the total yield of FHIA-20 is about twice as much as that obtained from “False Horn” plantain.



## 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.

The hybrid FHIA-20 (right) and its parents AVP-67 (left) and SH-3437 (middle).

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## AGRONOMICAL ASPECTS

### Agro-ecological requirements

FHIA-20 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-20 grows well at altitudes from 0 to 1,200 meters above sea level.

**Soils:** preferably loamy soils.

**Rain:** should be well-distributed and about 2,000 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 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 other leaves. Young shoots have to be removed every 8 weeks. The removal of “sister shoots” should be done 4 months after planting.

When all flowers have appeared, it is necessary to remove a number of hands, leaving only 5 per bunch. At the same time, 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**

FHIA-20 is as resistant to cuts and bruises as the “False Horn” plantain, because of its tough peel. It also has a long green life. For proper post-harvest management, a packing shed with water baths is required.