

TECHNICAL SHEET

Plantain variety PITA3

Presentation of the plantain

Plantains and other known bananas are monocotyledonous plants belonging to the order Scitaminales or Zingiberales, family Musaceae. This family comprises three genera: *Musa*, *Musella* and *Ensete* (Kwa and Temple, 2019). Like the dessert banana, it is a subgroup of the species *Musa ×paradisiaca* (derived from a cross between *Musa acuminata* and *Musa balbisiana*). This banana is richer in starch than those usually consumed as a dessert. Compared to the dessert banana, the plantain is generally larger and longer, has a slightly pink flesh and is slightly lower in sugar but much higher in starch, making it firmer, which makes it good for cooking. Although just as tasty raw as the former, their flesh is firmer, and it is more usual to eat them after cooking as they remain whole and serve as a starch to accompany meat, chicken and fish dishes.

In a more general and simplified way, cultivated bananas are classified into two main groups of edible bananas. 1) **Dessert bananas or fruit bananas consumed** fresh: they are eaten raw after ripening and represent on average 40% of world production (Kwa and Temple, 2019). 2) **Cooking bananas, including plantains**: these account for about 60% of world production (Kwa and Temple, 2019).

There are at least 150 varieties that can be grouped into four distinct types: '**French**', '**Faux Horn**', '**True Horn**', '**Bastard**' or '**Faux French**' (Kwa and Temple, 2019). To differentiate between the varieties, the criteria selected from among some 120 morpho-taxonomic characters were chosen in a participatory manner following fieldwork with farmers (Kwa and Temple, 2019). They relate to: the inflorescence (length, rachis dressing, appearance of the popote, etc.); the fruit (shape, length, diameter or grade); the color of the pseudo-stem and specific macules and the general habit of the plant (giant, medium, dwarf, etc.) (Kwa and Temple, 2019)

Bananas are a food crop of great food and economic importance in humid tropical and intertropical forest areas. Considered in a broad sense (bananas and plantains), bananas are the third most important tropical fruit crop in terms of tonnage (FAO, 2010 cited in Kwa and Temple, 2019). About 85% of the production is self-consumed and/or sold locally in various countries in Africa, Latin America and Asia (Kwa and Temple, 2019). Food uses of bananas or plantains are quite varied depending on the region, but few processed products are available in the markets (Kwa and Temple, 2019).

Global plantain production is estimated at around 30.5 million tones (Mt) (Kwa and Temple, 2019). It has varied little over the past 15 years between 28.05Mt and 32.61Mt. At least 52 countries and islands (including 18 African countries) are involved in this production (Kwa and Temple, 2019).

Cultivation cycle of a banana tree (dessert and plantain)

The cycle length of a banana plant is about one year from planting (or emergence of a shoot) to harvesting of the bunch. The evolution of the cycle of a banana tree under local conditions in French Polynesia generally follows the following pattern but may vary according to growing and climate conditions (DAG-French Polynesia, 2018):

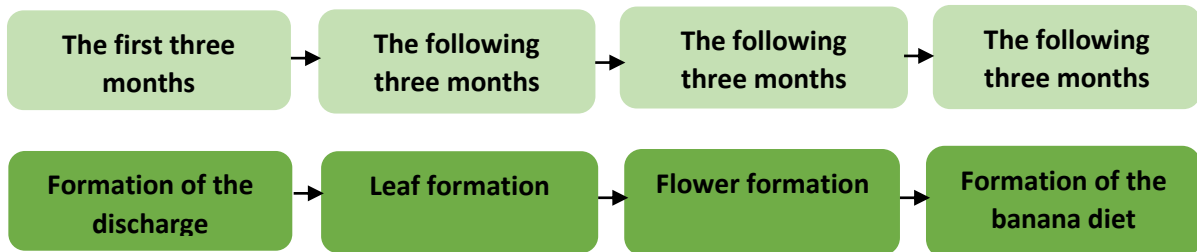


Figure 1 : Banana crop cycle (source: DAG-French Polynesia, 2018)

Representation of a banana tree

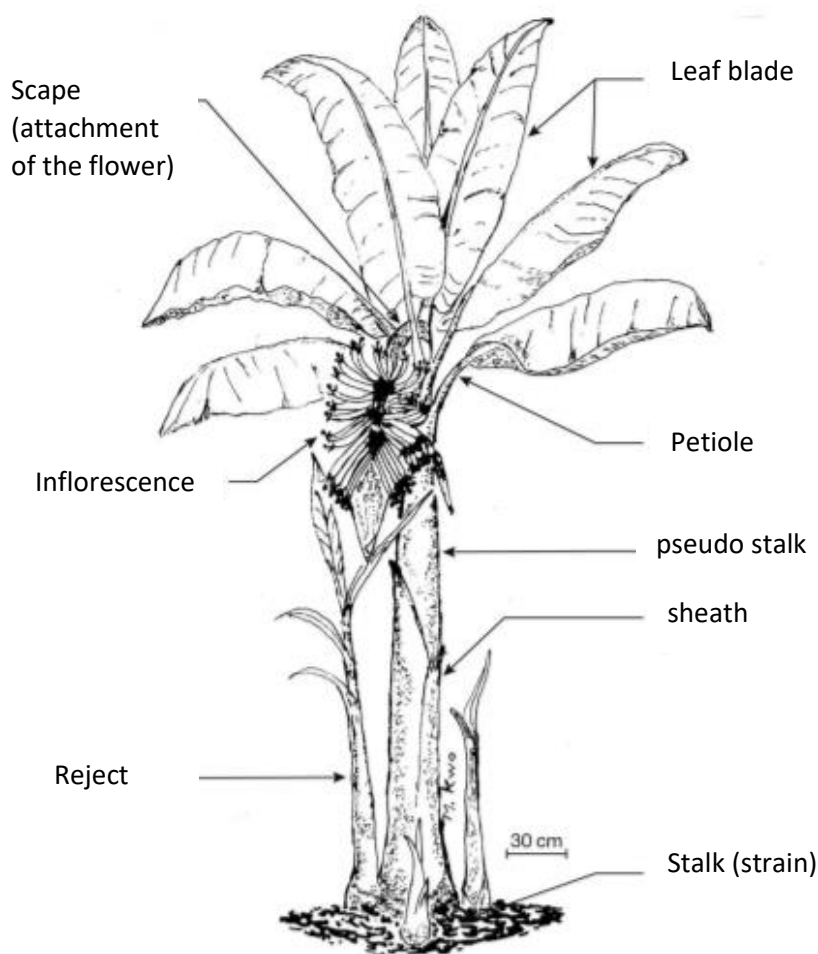


Figure 2 : Plantain plant and its different parts (source: Kwa and Temple, 2019)

Features of the technology

- Yield Farmer: 7 - 15 t/ha
- Early cycle: 10 months
- Varieties resistant to cercosporiose

Bibliographic references

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