

Some guidelines in the classification of Ghanaian plantains (Musa AAB Group).

S.K. KARIKARI and A.K. ABAKAH-GYENIN*

LA CLASSIFICATION DES PLANTAINS (GROUPE MUSA AAB)
AU GHANA

S.K. KARIKARI et A.K. ABAKAH-GYENIN

Fruits, nov. 1976, vol. 31, n°11, p. 658-660.

RESUME - A Kade (Ghana) la recherche a étudié l'identification et la classification des cultivars locaux. Dix-sept cultivars décrits ont été rassemblés en trois groupes. Le groupe *Apantu* (incorporant les plantains Corne), possède des régimes aux fruits peu nombreux et aux mains peu compactes. Le groupe *Apem* contient les types 'French plantain' aux cultivars généralement grands et vigoureux. Le troisième groupe contient les cultivars intermédiaires entre les groupes *Apantu* et *Apem*.

Plantain is the common name given to those types of bananas (*Musa* spp.) that produce a starchy fruit which requires preparation by cooking, pounding, frying, grilling, etc before being eaten. Unlike the sweet bananas which appear to a substantial extent in international trade and are well known in the markets of most countries outside the tropics, the plantain is a typical tropical food crop grown and sold locally.

The plantains originated in are associated with the tropical humid forests and are cropped in the peasant farms of the forest belt which extends right across Africa. In the forest zone of Ghana as a relevant example, the plantain is the main staple food.

The farmers in Ghana are familiar with this crop which is apparently very easy to grow and for many consumers it is a popular food.

Our knowledge on plantain is still very slight. Most statistics concerning plantain are derived from rough estimates and are generally most confusing. Other information about plantain is very rare, scattered and meagre.

* - University of Ghana, Agricultural Research Station, P.O. Box 43, Kade (Ghana).
Communication présentée à la Première réunion internationale de travail sur les bananes plantains et autres bananes de cuisson (Ibadan, A.G.C.D./I.I.T.A., 27-29 janvier 1976).

In Ghana, it often provides shade in young cocoa farms or is mixed with other crops. Accordingly it is difficult to determine or even estimate plantain acreage. Moreover, since it is a semi-perennial, producing bunches on ratoons regularly after the first harvest about a year after planting, the concept of yield per acre or hectare per annum is of doubtful significance when the data is collected from farmers.

The basic research programmes on plantain at Kade, Ghana, have been centred around identification and classification of cultivars grown in the country.

LOCAL CULTIVARS.

Reports on cultivars of plantains and bananas in tropical Africa have been published by a few authors. MASEFIELD (1944), BAKER & SIMMONDS (1952) and SHEPHERD (1957) reported on East African cultivars. REYMOND & JOJO (1940) in Tanganyika, and WILLIAMSON (1955) in Nyansaland added information from these countries. WALKER (1931) dealt with plantains in Gabon. DE LANGHE (1961) specified 56 varieties of plantain and bananas in the Congo. BAKSHI (1963) counted and described six local varieties of banana in Sierra Leone.

Plantains in West Africa have been very little described. According to SIMMONDS (1966) «unfortunately, we are almost completely ignorant of the cultivars grown in West Africa». Cultivars of plantain in Ghana are recognized and distinguished by certain morphological characters but their names very seldom appear in literature. CHRISTALLER (1934) in his «Twi» dictionary mentioned a few names of supposed plantain varieties. AHN (1961) mentioned three varieties grown in the Tano basin (Western region of Ghana). PRINS (1963-1964) made some observations on six varieties of plantains at Kade. GILL (1968) described two dichotomous mutant types. Our knowledge on plantain varieties have been considerably contributed to by KARIKARI (1971), KARIKARI et al (1971) and KARIKARI (1973) in which 17 varieties have been described and grouped into three. KARIKARI classified the apantu group which is characterized by peduncle which bears fewer fruits in less compact hands. The hands tend to stick out further from the peduncle. When in bearing the plant is fairly well balanced and therefore does not need to be propped up. The fruits become soft after boiling and therefore easy to pound into fufu which incidentally is the popular food among the Akan people.

Ten apantu cultivars are known, and these are distinguished by the colours of the pseudostem, fruits and pulp, number of hands per bunch, and number of bunches per plant have also been used as basis of distinction. The following apantu cultivars are illustrated by slides :

1. Kaamenko
2. Apantupa
3. Brodewio
4. Brodekokwa
5. Brodehene
6. Brodeaowin
7. Osakoro
8. Asamienu
9. Asamiensa
10. Abomienu (double-bunch), comprising seven types

The Apantu group are typical horn-plantain types of SIMMONDS. They have between 1 - 7 fruit hands and a short tail of unpersistent undeveloped flowers. In some of them, those in the osa group for example, the main axis is entirely undeveloped, leaving only a short stump without residual flowers.

The Apem group is described as having tall robust and vigorous stem with heavy foliage. The inflorescence axis is long with as much as 7 - 13 hands and numerous long and thin fingers which are clustered closely together. Male flowers are persistent. Typical French plantain types of SIMMONDS. In this group we have :

11. Apempa
12. Osabum

13. Apem-onniaba

The intermediate group is made up to those plantains which have characters peculiar to those of the apantu and apem groups. For instance, whereas the apems have many hands with several thin fingers and the apantus have few hands with few big fingers, plantains of the intermediate group have characters that are roughly midway between those two extremes. Within this group we have :

14. Brodepapa - apem
15. Osoboaso
16. Kwakuo Ntrowa - apem
17. Asante Kwadu

Asante Kwadu is like banana in many aspects. The fruits are shorter and thicker. The pseudostem is violet in colour and the fruits which are soft when cooked are preferred by old people especially those who are toothless or have weak teeth. Most plantains in Ghana (over 2/3 of the production) are grown by the Akan speaking people. Akan being the leading local dialect. Akan names have been used in this listing. Slight variations in names due to distinctions in Akan dialects such as Asante, Akyem, Akwapim, Fante, ect are also used. It is of significance to mention that plantain is grown in the long stretch of forest of Ghana comprising Brong Ahafo, Ashanti, Volta, Eastern, Central and Western regions. The main languages spoken by these people are respectively Twi (Brong Ahafo and Ashanti), Ewe (Volta), Fante (Central), Nzima (Western). The collective name for plantain are Twi - borode ; Ewe - abladze ; Fante - borodze ; Nzima - bana ; resembling banana. The word bana seems to have been adapted from the Sierra Leone word bana for plantain. BAKSHI (1963), gave evidence to show that it was introduced to the Western region by the Nzima fishermen who brought it from Sierra Leone. There is thus some element of certainty that different vernacular names are synonymous as far as Ghana is concerned. According to KARIKARI (1973) although it is claimed that there are well over 100 plantain (and also banana) cultivars in Ghana it appears that there are probably not more than those listed so far, and that the confusion in number might have arisen because different names are given to the same cultivars in different localities.

DE LANGHE (1961) suggested a determination key based on shape and colour characters. Morphology, however, although helpful cannot be taken as a good tool for varietal taxonomy of this agricultural crop. As SIMMONDS (1966) has pointed out «it will be many years before lists of names and identities can be compiled ... workers should continue to use their local names rather than attempt to adopt standard names which might all too easily be wrongly applied». However, according to KARIKARI (unpublished) cultivars introduced into neighbouring countries should continue to bear the names from where they were introduced in an effort to reduce the confusion in the nomenclature.

LITERATUR CITED

- AHN (P.M.). 1961.
Soils of lower Tano basin South Western Ghana.
Ghana Ministry of Agriculture, Soil and land use survey, memoir
n 2.
- BAKER (R.E.D.) and SIMMONDS (N.W.). 1952.
Bananas in East Africa. II: Annotated list of varieties.
Emp. Jour. Expl. Agric., 20, 66-76.
- BAKSHI (T.S.). 1973.
Bananas of Southern Sierra Leone.
Econ. Bot., 17 (4), 252-261.
- CHRISTALLER (J.G.). 1933.
Dictionary of the Asante and Fante Languages called Twi.
2nd ed. Basil Evangelical Mission Society, p. 40-41.
- DE LANGHE (E.). 1961.
La taxonomie du bananier plantain en Afrique équatoriale.
J. Agric. Trop. Bot. appl., 8, 417-449.
- GILL (M.M.). 1968.
A note on dichotomy of the inflorescence in the plantain (*Musa paradisiaca*).
Trop. Agric. Trin., 45, 337-343.
- KARIKARI (S.K.). 1971.
A note on plantain (*Musa* AAB Group) and banana (*Musa* ABB Group) cultivars in Ghana.
Ghana Jnl Agric. Sci., 4, 79-85.
- KARIKARI (S.K.). 1973.
Some taxonomic assessment of contribution of *Musa acuminata* and *Musa balbisiana* to the origins of plantains and bananas in Ghana.
Ghana Jnl Agric. Sci., 6, 9-19.
- KARIKARI (S.K.) et al. 1971.
Dichotomy of plantain (*Musa* AAB) in Ghana.
Ghana Jnl Agric. Sci., 4, 71-77.
- MASEFIELD (G.B.). 1944.
Some recent observations of the plantain crop in Buganda.
E. Afr. Agric. Jour., 10, 12-17.
- PRINS (J.H.). 1964.
Ann. Rep. A.R.S., Kade, University of Ghana Mimeo.
- RAYMOND (W.D.) et JOJO (W.L.). 1940.
The nutritional value of some Tanganyika foods. I. The banana.
The E. Afri. Agric. J., 6, 105-108.
- SHEPHERD (K.). 1947.
Banana cultivars in East Africa.
Trop. Agriculture (Trin.), 34, 277-286.
- SIMMONDS (N.W.). 1966.
Bananas.
Longmans, London.
- WALKER (A.). 1931.
Le bananier plantain au Gabon.
Rev. Bot. appl. Ag. trop., 11, 18-27.
- WILLIAMSON (J.). 1955.
Useful plants of Nyansaland.
Govt Printer Zomba, Nyansaland, p. 84-85.

