

TECHNICAL SHEET

Gambari lifin

Presentation of *Gambali lifin*

Gambari-lifin is a flour derived from dehulled and degerminated maize used to prepare dough (owo) or partially used in baking and pastry making (Adjilé et al, 2014). Gambari-lifin is a very white, slightly fermented flour with a very fine grain size. It is a first "class" flour often used during major events in human life such as wedding ceremonies, births, deaths and other special celebrations to prepare a dough ready to be consumed accompanied by various sauces. It is also a flour whose consumption is recommended for the elderly, as gambari-lifin is easily digested (Houssou et al, 2015).

Equipment and materials for the preparation of Gambali lifin

- The Engelberg mill is used for shelling and degerming corn to obtain grits.
- The grinding mill is used to grind these grits to produce the wet flour.
- The solar dryer is used to dry the flour after milling.
- The stainless steel sieves are used to sieve the flour in order to obtain a fine grain size flour between 150 and 250 μm .

Other materials needed are a basin, bowls, a sieve, a thermo-welder and other utensils.

Preparation process of Gambari lifin

Cleaning and sorting: The quantity of corn to be processed is cleaned by winnowing and then sorted to remove all kinds of impurities (foreign bodies and mouldy grains).

Moistening: After winnowing and sorting, the corn grains are slightly moistened by sprinkling water in order to facilitate the shelling and degerming operation.

Shelling and degerming: These two operations are carried out simultaneously and make it possible to remove the shells and the germs of corn grains to obtain grits of corn. They are carried out with the help of an Engelberg type husking machine or a grinding mill.

Winnowing and sieving: This step removes the bran from the grits and separates them from the coarse fraction of the corn flour.

Soaking: The grits are then soaked in water for 16 hours to facilitate their subsequent grinding.

Draining and washing: The grits are then drained with a plastic strainer or a clean basket made of vegetal materials and washed again with clean water.

Grinding: The wet grits are ground to obtain the flour. This operation is done with a millstone.

Drying in the sun : To the wet flour obtained is added the coarse flour (step 4). The whole is dried in the sun using a solar dryer where the product is protected against microbial and environmental contaminants. This drying process can last up to 24 hours depending on the amount of product and the amount of sunlight.

Milling of the dried flour: After drying, the flour is further milled to obtain a fine flour.

Sifting: This flour is then sifted to have a very fine product ready to be marketed in bulk or packed.

Technological diagram for the preparation of Gambari lifin flour

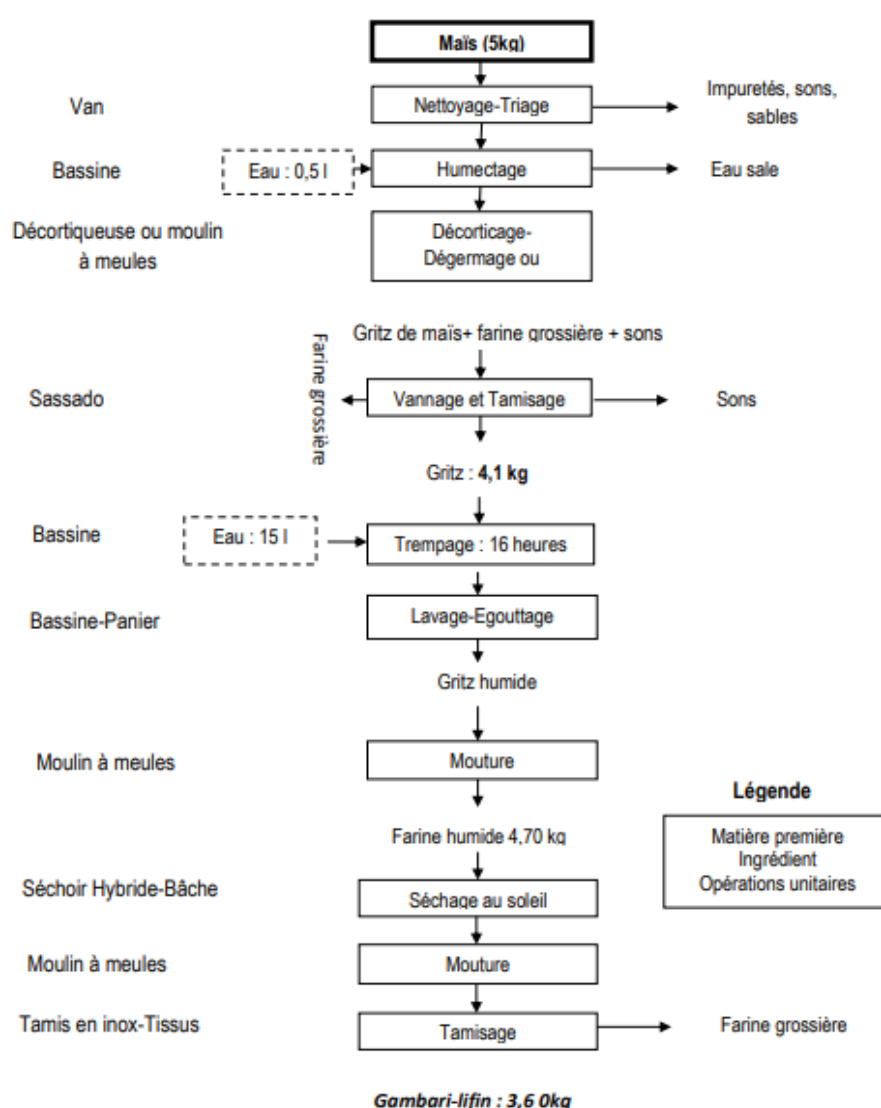


Figure 1 : technological diagram of the preparation of Gambari-lifin flour (source: Houssou et al, 2015)

Characteristics of the technology

- Food flour obtained from dehulled and degermed corn
- Nutritional quality: ash content = 0.07%; dry matter content = 85.59%; fiber content = 0.019%; lipid content = 0.03
- Granulometry: 33% to 75% for a 200 µm mesh size
- Shelf life : 1 year
- Field of application
- Post-harvest of corn

Bibliographics references

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Other references

Regional Maize Specialization Center; HEADQUARTERS INSTITUTION: CENTRE NATIONAL DE RECHERCHE AGRONOMIQUE (INRAB); NSC MEMBER INSTITUTIONS: At present, the Maize NSC is led by CRA Sud, CRA Centre, CRA Nord, CRA Agonkanmey, FSA/UAC, FAST/UAC, REDAD, OPA (Producers and Processors), DICAF, IITA. Host country: Benin; Coordinator: Dr. Marcellin ALLAGBE; Email: allamarcel@hotmail.com ; Telephone: +229 95 40 62 38 / +229 67 15 26 25