

Innovative processing of cassava peels to livestock feeds

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RESEARCH PROGRAM ON
Roots, Tubers
and Bananas



RESEARCH PROGRAM ON
Livestock and Fish



RESEARCH PROGRAM ON
Integrated Systems
for the Humid
Tropics

Background

Africa produces about 150 million tons of cassava per year and Nigeria 50 million

Cassava processing generates ~ 40 million tons of waste/annum in Africa

Drying of peels is on bare floor over a 3-day period in the dry season.

At 100% successful drying, 1.3 tonnes wet tubers yields about 220 kg of dried peels

Unsuccessful attempts to eliminate cassava peels through burning and natural decomposition constitute environmental pollution.



What was done

- A technology for processing peels developed



GRATING



PRESSING



REGRATING



SIEVING



DRYING



TOASTING

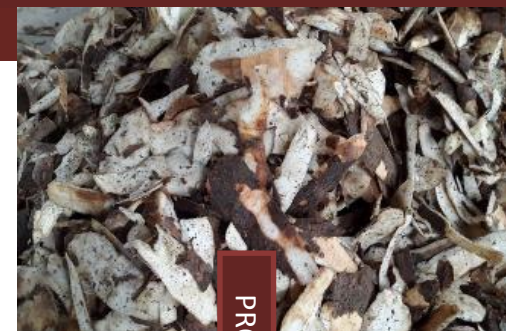


What was done

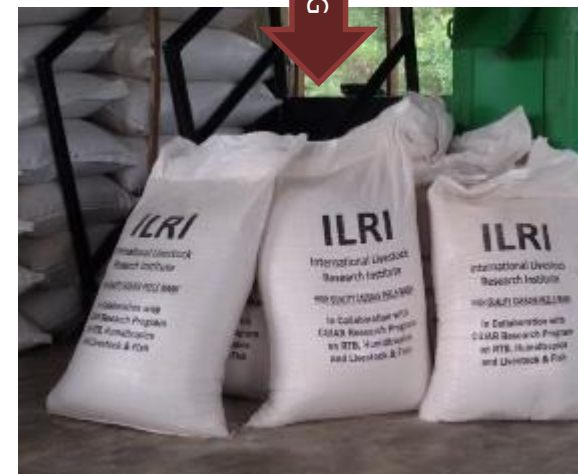
- Laboratory analysis (*Masterlab The Netherlands, IITA Ibadan*)
(*CP= 3.1g/100g; starch=73.2g/100g; Fibre= 6.3g/100g; HCN= 90mg/kg; Zero limit of Aflatoxin*)
- Products evaluated through linking up with the industry partners (Amo farms in poultry and feed lot cattle) (Individuals- in pig)
- Market demand for the new products was created
- Alternate use of cassava peels as carrier for ***aflasafe*** developed with potential to release large quantities of sorghum grains
- Technology disseminated through multimedia and visits to the pilot processing unit.

Why does it matter?

- Boost livestock production to provide more ASF from locally sourced feed resources
- Opportunities for converting waste to feed benefitting the women who constitute the bulk of the work force in cassava processing units (incomes, livelihoods).
- Creates new job opportunities
- Environment friendly as it clears the wastes polluting the areas around the cassava processing units
- Releases grains from feed industry for human consumption, reducing animal-man competition.



PROCESSING



- ✓ **Energy - 2/3 of maize**
- ✓ **Shelf life- 4-6 months**

The Milestone

- ✓ Niji Foods Ltd (with matching funds from USAID)
- ✓ Durante Fish Feeds Ltd
- ✓ NGO Synergos—have established or started building six processing factories, for two cassava peel products, CassaPeelMash® and CassaPeelBran®.
- ✓ The Nigerian environment ministry (establishment of six more processing plants.
- ✓ ILRI has received related enquiries from 30 entrepreneurs in Nigeria, Ghana, India, Malawi and South Africa.
- ✓ The International Institute of Tropical Agriculture, which partnered ILRI in the research phase, has also begun testing a third product Cassanules® for Aflasafe® production in Senegal

Credit:

I Okike, A Samireddypalle, M Blummel, P Kulakow,

G Thiele, C Fauquet, ML Fadiga, D Enahoro

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ILRI thanks all donors and organizations who globally supported its work through their contributions to the **CGIAR system**

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