

Power Flour

The common gruel and porridges in Uganda are carbohydrate based foods. Cooking these foods with water results in gelatinization that make the food soft and more easily ingested. Enzyme active malts (power flour), when added during cooking, have the ability to digest the carbohydrates, proteins, lipids, and phytate present in these foods. This results in liquefaction of the meal and makes sugars, amino acids, short peptides, base sugars, monoglycerides, free fatty acids, cholesterol, vitamins and mineral micronutrients available for easy absorption by the intestinal tract. This process is particularly beneficial for weanlings who have difficulty ingesting the gelatinized food, infants and young children who have immature digestive enzyme systems and for malnourished people of all ages whose digestive enzyme systems are impaired as a result of their malnutrition and HIV/AIDS patients.

Mission

- Preventing and treating malnutrition

Vision

- Sustainable management and care of malnutrition with local resources

Objective

- Develop a carbohydrate based foods and enzyme active sorghum malt flour product for the purpose of nutritionally caring for malnourished children and HIV/AIDS patients in Uganda.

Focus

- Maize-Sorghum malt product development
- Bean-Sorghum malt Study
- Market product study
- Clinical study

Implementers

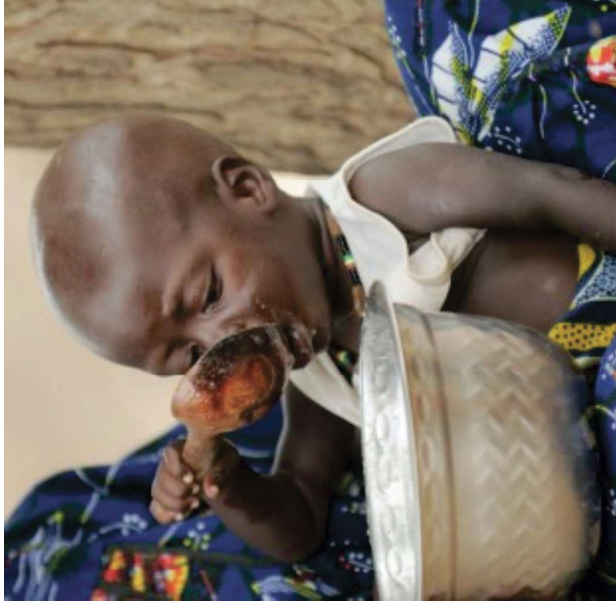
- Makerere University, Department of Food Technology and Nutrition
- Arua Regional Referral Hospital

Output

- Local production of power flour product
- Efficacy of power flour product in the management of severe malnutrition

Impact

- Reduced child mortality
- Improved child health



In poor countries it is common that mothers have insufficient milk to breastfeed their babies. Consequently they usually feed their babies a porridge made from local grains. Until age 2, infants have difficulty digesting compound carbohydrates in the grain porridges. Some bright scientists recognized the comparison to the brewing process where malt enzymes are used to convert grain carbohydrates to simple sugars. They enlisted the help of Brier Malt Company in Chilton, Wisconsin to develop a malt based enzyme that would be easy for mothers to use. It was given the name "Power Flour." When a quarter teaspoon of Power Flour is added to hot porridge, it takes a few minutes before the porridge becomes noticeably more liquid. This indicates there has been a conversion to simple sugars. Power Flour has provided better nutrition for babies. The result has been a reduction in child mortality rates in these poor countries.