

Processing Working Group 2- Discussion points

Prof. Bendantunguka Tiisekwa
Department of Food Technology, Nutrition and
Consumer Studies
College of Agriculture,
Sokoine University of Agriculture, Morogoro
Tanzania

E-mail: tiisekwa@suanet.ac.tz, tel:
+255754476410

Malnutrition is a serious problem in many parts of SS Africa

- Protein, energy, micronutrient and vitamin deficiencies
- Most affected are under fives, pregnant and elderly
- Caused by inadequate supply of quantity and quality
- Household and individual food and nutrition insecurity is obvious at certain periods of the year- especially during the growing season

The place of food processing in improving nutrition situation in SS Africa

- Increase diversity and quantities of family food supplies through
 - Reformulation- wider choice of products
 - Compositing: e.g. value addition is being promoted in Tanzania –
 - Composite flours also known as nutritious flours as complementary foods for child weaning
 - But food micro and small enterprises face safety and quality challenges- mould growth- aflatoxins

The place of food processing in improving nutrition situation in SS Africa

- Making nutrients that are normally available seasonally throughout the year – ensure food and nutrition security
 - Also reduce postharvest losses- fruits converted into juices
 - Increase income to farmers through created market by processing industry-
 - increased purchasing power of population enables them to purchase other food sources including processed foods

The place of food processing in improving nutrition situation in SS Africa

- Improve digestibility
- Reduces bulk-ness- facilitates transportation
- Reduces natural toxins and anti-nutritional factors

Food processing in SS Africa

- Mainly cottage/micro and small scale
- The motive is to sell –recently nutritional, safety and convenience are being promoted
- Milling using hammer mills is a very good example – widespread
- Other processing activities are dominated by women hence offer employment
- Mostly done in homes and are not governed by food regulations

Examples of food processing activities in Africa

- “Gari” in West Africa
- Fish smoking in Ghana
- Fruit processing in Tanzania
- Nutritious flours “lishe” in Tanzania
- “Tsabana” in Botswana for feeding children under age of 3 years- through extrusion. Sorghum is mixed with soybeans and vitamins added to fortify

Examples of food processing activities in Africa.....

- Adding sprouted grain which increases the vitamin content and reduces viscosity of porridge- increases consumption volumes
- Drying of African indigenous vegetables- large quantities spoil due to lack of processing capacity
- Developing vegetable products with extended shelf life can help solve some nutritional problems

Case of vegetable processing: sun-drying

- Traditional sun-drying of vegetables leads to poor quality: not protected against
 - Dust and Rain
 - Wind
 - Insects and Birds
 - Rodents and Domestic animals

This results in soil contamination with m.o., formation of mycotoxins and infestation with disease causing m.o thus affecting consumer's health

Nutritional requirements of food processing: case of complementary foods

- Must meet the following:
 - High energy content
 - Low viscosity
 - Balanced protein- containing essential a.a.
 - Vitamins particularly A, D and B group
 - Minerals- iron, folic acid and calcium
 - No anti-nutritional compounds
 - Pleasant taste and palatable

Nutritional requirements of food processing: case of complementary foods.....

- Also must meet following physical requirements:
 - Easy and quick to prepare
 - Easy to consume
 - Adequate shelf life
 - Made from local ingredients
 - Affordable
 - Safe microbiological quality

Challenges faced by cottage/micro and small scale processors

- Capacity-
 - Human- skilled,
 - physical – poor premises
 - Unavailability of inappropriate machinery
 - Costly machinery
 - Financial to meet legislation
 - Low purchasing power of consumers for costly processed foods
 - Inadequate supply of raw materials for processing that meet quality and safety – suppliers must be made aware
 - High operations cost- power
 - Too many laws and regulations- n Tanzania about 22 laws and regulations apply

Conclusion

- They are dominantly very small to small
- Small as they are the contribute to nutritional needs of the population
- They have an opportunity to contribute more if supported
- They are confronted with many capacity challenges
- African food processors needs to be assisted to deliver quality, nutritious, affordable and safe food

Recommendations

- By improving the capacity of local food processors across Sub-Saharan Africa and LDCs in general to produce and market healthy food products while simultaneously improving smallholder farmers' access to markets, food and nutrition security for both producers and consumers can be improved significantly
- Collaboration between the industrialized LDCs can speed up adoption of technologies in LDCs