Adopting Technological Innovations to Assure Quality in Shea Butter Production: Developing Instructional Media for Training Shea Butter Producers in Mali

Assa Kante
Department of Agricultural Education, Communications & Leadership
College of Agricultural Sciences & Natural Resources
545 Agricultural Hall
Oklahoma State University
Stillwater, OK 74078-6032
Tel. #: 405.744.8084
Fax #: 405.744.5176
assa.kante@okstate.edu

M. Craig Edwards, Ph.D.
Department of Agricultural Education, Communications & Leadership
College of Agricultural Sciences & Natural Resources
Oklahoma State University
craig.edwards@okstate.edu

Akeredolu Mercy Ph.D.
IPR/IFRA, Katibougou, Mali
jjsarah1011@yahoo.co.uk

Abstract
Several studies in Africa addressed the importance of shea butter production for African countries, the issue of shea butter processing, and the quality requirements for international markets (Casten & Synder, 1985). These studies indicated that shea butter is an essential product for improving the economic livelihoods of rural women in 16 countries in Africa (Hammond, Anstee, Donkor, & Wumbediow, 1997). Shea butter is also an important food product and ingredient in medicine and cosmetics because of its properties. In Europe and North America, shea butter is used as raw material by the cosmetic and pharmaceutical industries (FAO, 1991). Despite the potential of shea butter as a good source of fat and export earnings for some African countries, the traditional method of processing it provides a poor quality product with low butter yield (Fleury, 1981). This limits its use domestically and internationally. To improve yield and quality, it is necessary to develop improved methods for processing shea butter (Olajide, Omowaye, & Onunola, 1999).

Some studies have revealed the need to develop improved processing methods. For example, kernel grinders have been introduced to reduce labor requirements in the processing of shea butter. Improved processing technologies such as the boiling/drying pretreatment of the shea nuts were necessary to overcome quality issues, e.g., alleviation of off-flavor and occasional rancidity to meet international quality standards. However, shea butter workers needed training in the proper ways to use the new technology, which also meant the need for
instructional materials existed. Training modules, based on adult education principles (Knowles, 1982), to improve quality were lacking. So, instructional media were developed to assist in improving the production of shea butter with the aim of expanding its marketability on the global market.

The purpose of this poster presentation is to describe visual aids used by women producers of shea butter in Mali and training materials developed for post-training application. The medium and long term outcomes were to reduce labor input in shea butter production; to increase the value of shea butter by increasing volume and prices; and to contribute to increased welfare of women producers and agribusiness entrepreneurs in Mali.

The researchers developed the instructional media based on findings from a survey questionnaire, focus groups interviews, participant observations (Creswell, 2008) of women associations in Mali, and review of archival documents.

Findings/Conclusions/and Recommendations

The poster will present the modification and improvement of selected processing steps, which include collection of the fruits, the boiling/drying of nuts, and the extraction technique. The presentation will also include an explanation of the factors affecting the quality, define quality criterion, and explain how to control quality using visual aids as workers’ referents during the production of shea butter. To produce quality shea butter and then expand national, regional, and international markets, improvement in fruit collection, pretreatment of nuts, extraction, and conditioning and storage of the shea butter should be followed.

Keywords: shea butter; quality assurance, technology