

Pearl Millet Processing in Mali

Over the last year and more, a significant amount of CTI's research and development time and energy has been devoted to winning the pearl millet seed from the stalk. Why?

Pearl millet (*Pennisetum glaucum*) is widely grown and well adapted to many areas of India and Africa and has recently been introduced into the Americas. The plant is the crop of choice in many ecosystems where drought, poor soil quality and extreme heat predominate. For example, in the Sahel or sub-Saharan area of Africa it is the only cereal grain that will tolerate the climate where maize or even sorghum will fail. This grain is the crop of last resort where conditions and the people most struggle for survival, and because CTI's mission is to assist those most disadvantaged, it is a natural fit. Nutritionally, the grain is high in protein and has a good amino acid balance. It is also free from contamination by carcinogenic toxins such as aflatoxin which can affect other grains like maize. Pearl millet is used to make breads, porridges and even alcoholic drinks, and the stalks can be used as building material and animal feed.



CTI's interest and challenge has been to give pearl millet farmers a step-up in food processing from mortar and pestle. For some time, CTI volunteer Rolfe Leary has been in discussions with a USDA (United States Department of Agriculture) scientist in Tifton, Georgia. These kindred spirits saw the gap that existed between needs and available tools and began hashing out what could be done to assist the women of the Sahel improve not only their productivity but also reduce the contamination of their grains. Furthermore, once a process had been established, they discussed how this process could be introduced to the women of the region. CTI's technology for processing pearl millet (see thresher at right) is approaching the necessary "70% developed" level. This level is the point where CTI's technologies are sent elsewhere for in-the-field testing.



Through a connection of CTI Board member, Dr. Camille George, and an ICRISAT (International Crops Research Institute for the Semi-Arid Tropics) scientist working in Mali, discussions for field trials of our technologies in Mali have begun. Another volunteer, Steve Clarke, a professional agronomist and an ex-ICRISAT employee, will be able to provide additional technical input and institutional knowledge for the developing partnership between CTI, the USDA, and ICRISAT. A level of mutual respect has developed that has enabled CTI to field test our technology in a way not normally thought possible for a small St. Paul nonprofit.