

Sorghum Yields Doubled in Farmers' Fields in Three West African Countries

To increase sorghum and millet production, improved technologies must be introduced to farmers and new markets developed to avoid price collapses from increasing output levels. To promote this productivity increase INTSORMIL conducted on-farm demonstrations of existing technology in collaboration with the national extension agencies and agricultural research programs in Senegal (ISRA),



Mali (IER) and Niger (INRAN). Improved seed, inorganic fertilizer and improved agronomic practices, often including tied ridges for water harvesting, were introduced on one ha farmer plots in the three countries. Farmers following agronomic recommendations consistently doubled yields with the best farmers obtaining 2 to 2.5 tons of sorghum/ha (photo right). Traditional yields are less than a ton.

As productivity of cereals is increased, the demands of the rapidly expanded markets for processed foods (millet) and for feed (sorghum) become a central concern. According to Lloyd Rooney, Distinguished Professor of Food Science, Texas A&M University, "a consistent, high quality grain supply is the first prerequisite for the development of the sorghum/millet-based food processing industry." Following this recommendation the INTSORMIL Marketing-Processing Project headed by Dr. Botorou Ouen-deba, in collaboration with West African national programs, focused on improvements in the supply of consistent, quality grains including the provision of "baches" (tarps) to keep the threshing off the ground.



To promote the use of millet as a food INTSORMIL promotes connections between farmers' groups and the rapidly growing sector of millet food processors of couscous, arraw, degue, sankal, tchakri and yogurt in Senegal, Mali, and Niger. Some of the food processors are also substituting sorghum for millet in food products. According to Pierre Ndiaye, the owner of "Yaourt Jaboot" in Dakar, "Sorghum not only makes excellent couscous and tchakri but I can also point out its advantages to diabetics in my advertising. HIV/AIDS is getting so much attention that most people do not realize how important diabetes is as a killer and disabler in Sub Saharan Africa now."

For sorghum, the principal source of rapid demand expansion is expected to be as a feed base for intensive poultry production. Because of the high price of imported maize and the higher risk of aflatoxin from West African maize, West African feed mixers and poultry producers are searching for locally grown sorghum as an alternative. Sorghum has less mycotoxin problems and can be cost competitive as a substitute for maize in poultry feed. However, in many years there is a shortage of domestic sorghum. The CEO of one large feed mixer in Senegal stated that he bought 200 ton lots of sorghum grain each month for four months until his supplier was no longer able to



provide the grain. With increased productivity we can respond to these rapidly increasing demands for both millet and sorghum.