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Understanding a Local Seed System: The Example of Sorghum in Southern Mali

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Abstract

Sorghum (*Sorghum bicolor* (L.) Moench) is the staple crop in southern Mali. Besides providing grain for human consumption, the stover is used for animal feeding and for construction.

Strengths and weaknesses of the local seed system for sorghum were analysed as a base for the collaboration between plant breeders and farmers: choosing varieties that meet farmers' needs and strengthening the dissemination of improved varieties.

Over 400 households in two regions were interviewed in 2004 or early 2005 using a questionnaire for individual interviews about variety choice, seed management practices and information exchange. Key issues were clarified during a village level focus group discussion.

Sorghum shows a broad diversity in landraces. Between 5 and 14 different varieties exist per village and 2–3 different varieties are cultivated per family. Farmers grow different varieties to meet different needs such as diverse uses, adaptation to different types of soils, different maturity cycles and good storage traits.

The varieties are obtained for the first time by heritage in the family, by exchanges or gifts in the village and neighbour villages. Purchased seeds are of no importance. Locally the rare introduction of new varieties due to activities of research institutes and extension services can be observed.

Most farmers produce their own seeds every year: selection of panicles in the field before harvest, storage in form of sheaves attached in the granary, the house, the kitchen or in a tree.

Strengths of the system in terms of variety improvement are that farmers differentiate a large number of varieties, and regularly test new varieties. Also selecting panicles is an important skill.

Weaknesses of the system in the process of varietal change are the slow and geographically limited exchange of varieties, seeds and information. Dissemination is further limited because commercialisation of seeds by individuals is a taboo in the traditional society. The access to research generated varieties is still poor.

Keywords: Mali, plant breeding, seed management, seed system, sorghum, varieties