Playing the Generation Game

Forty-one per cent of the world's sorghum area is located in Africa, yet sorghum yields in this region are the lowest globally. Covered kernel smut (CKS) of sorghum, which is a seed-borne disease, is a major constraint to increasing yields of smallholder sorghum, threatening rural livelihoods in semi-arid areas of Kenya, Tanzania and Uganda.

Participatory rural appraisal (PRA) activities showed that most smallholders save their own seed. The crop is harvested and the seed heads carried to the homestead. Smutted and clean sorghum heads are often intermingled, resulting in contamination of the next season's seed.



PRA activities with women farmers

Control of CKS may be achieved through fungicide seed treatments and/or the selection of clean seed heads to keep for planting in the next season. However, the success of this strategy depends on the farmers having sufficient food and seed resources to enable them to save clean seed for the next crop.

In Tanzania, the key constraint to uptake of the clean seed selection practice is pressure on household food security prior to planting. Selected clean seed is often eaten during times of food shortage, leaving no choice but to use infected seed for the next season's crop. A solution to this problem is to find alternative food source for the off-season. Cassava is one alternative, and the project is working with farmers to set up community-managed cassava nurseries to help in the establishment of this crop.

In Kenya, two crops of sorghum are grown per year, but the rainfall in the second season is often insufficient to ensure a complete crop cycle. In these circumstances, the previous season's crop can be regenerated by cutting the plant to a suitable height (ratooning), resulting in establishment of a sorghum stand and a



Primary schools' drama competition

reduced time for the crop cycle. Adoption of this practice improves food security, whilst helping farmers to maintain their own seed stocks.

Providing accurate information to farmers enables them to make informed decisions on crop management. A key component of the project has been to mobilise the younger generation through a schools programme, which helps to spread information to the wider community. This has been achieved through school plays, ballads and, in secondary schools, through poster competitions.

The plays, involving 37 schools in four locations, were initiated by NRI and organised by the local agriculture, education and chief offices in Mwingi District, East Kenya. Each school was invited to create a 15–20 minute play in the local language on CKS management. They then presented their plays to local communities, and prizes were awarded for the best plays. Secondary school students were invited to produce posters to illustrate the CK message.



Secondary school poster competition

R7518: Promotion of sustainable control of covered kernel smut of sorghum through broadening the cropping base, N. Hayden and K. Wilson, NRI