

Cassava Pick ‘n’ Mix

Fufu and other traditional foods prepared from cassava provide the staple carbohydrate food of Ghanaians. With an annual production of 450 kg of cassava per person, Ghana’s production is exceeded in Africa only by the far larger Nigeria and Democratic Republic of Congo.

Working closely with two rural communities in Nkaakom (Forest Zone) and Aworowa (Forest/Savannah Transition Zone), project R7565, co-funded by the CPP and PSRP, has developed a novel approach to the breeding and selection of cassava varieties. Cassava has been promoted to support the increasing population and is now the main food and a major source of cash, particularly for young, relatively poor, farmers. As well as being



Loading dried cassava chips for transportation to market

a source of cheap food, cassava is a crop of ‘opportunities’: CPHP-funded work identified markets in Ghana for 5000 tonnes of cassava industrial starch each year. Despite this, none of the four ‘improved’ varieties released in the past few decades has been widely adopted.

Why do farmers not adopt new varieties of crops? Would farmers benefit more from plant breeding and adopt more of the outputs if they were central to the breeding process?

A major advantage of ‘participatory’ plant breeding is that new varieties should be more acceptable to farmers and will be developed faster – conventional breeding takes a minimum of nine years for cassava in Ghana. To

this end, scientists from the Natural Resources Institute and the Crops Research Institute (Ghana) together with the Ministry of Food and Agriculture struck up partnerships with farmers in the target communities.

The main pest/disease of cassava in Nkaakom and Aworowa, as throughout most of Africa, is cassava mosaic disease (CMD). A key characteristic for any cassava variety to be cultivated in these areas was therefore resistance to CMD. Cassava seed of mainly West African origin, obtained from the International Institute of Tropical Agriculture (IITA), was planted with farmers in communal fields in participating villages. During the growing season farmers and researchers evaluated the varieties using farmers’ pre- and post-harvest criteria. Cuttings of favoured varieties were multiplied in the village by the farmers.

The project has generated a large range of cassava varieties many of which are very high yielding. Most of the new clones are also resistant to CMD and, not unexpectedly, farmers prefer the new clones to their own landraces. Using findings of extensive market research into cassava characteristics required by processors and manufacturers, the CPP-PRSP project is achieving success through the understanding that for successful adoption, plant breeding trials must consider the needs of the consumer as well as the producer.



Aworowa farmers enthusiastically displaying the tuberous root yield of a selected cassava seedling

R7565: Participatory breeding of superior, mosaic disease-resistant cassava
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