

# African farmers now select seeds for their needs

Food-crop improvement by conventional plant breeding, without resorting to GMO (Genetically Modified Organism) technology, is the goal of the African Centre for Crop Improvement (ACCI), a plant breeding initiative based at the University of KwaZulu-Natal (UKZN) in Pietermaritzburg, spear-headed by Professor Mark Laing.



Prof Mark Laing, Director of the ACCI, UKZN, is congratulated by Kofi Anan, chairperson of AGRA (A Green Revolution for Africa), for an AGRA Forum award for capacity building affecting food security in Africa.

"The idea is to ask the farmers what they want, in a scientifically structured survey process. After analysing the farmers' responses, we can identify the key traits they want in their crops. We even take it further, and the PhD students may ask the farmers to help them choose the best plants, with the best taste, colour, shape etc.

"These new crop varieties are readily adopted by the farmers. After all, they chose them," said Professor Laing.

## Based on traditional plant breeding methods

This concept of seed development based on traditional plant breeding methods has come about since the inception of the ACCI in 2002. Currently students are working with 17 crops including millet, sorghum, African rice, cassava, sweet potatoes and teff, each staples in their respective countries.

"When we started out, we were told that the ACCI program would definitely fail, that such an ambitious project could never work. But with the right team of experienced plant breeders to teach and supervise the students, it has worked even better than we had hoped. 100% of the ACCI graduates have stayed in Africa, mostly to work on food crops in their home country, in their country's National Agricultural Research Institute.

## Highly successful program leads to award

So successful has this program been that Professor Laing recently received an award of recognition from Kofi Anan, chairperson of AGRA (A Green Revolution for Africa) at a prestigious conference held in Arusha, Tanzania, the AGRA Forum. The stature of this conference was supported by heavyweights of the development community, including Melinda Gates of the Bill and Melinda Gates Foundation, Dr Gary Toennissen, MD of the Rockefeller Foundation, MJM Kikwete, president of Tanzania, and Dr I.A. Mayake, CEO of NEPAD.

Forty two ACCI students from 14 countries have graduated with doctorates, with 38 more in training; a sister organisation in West Africa, WACCI is training another 58 plant breeders in a parallel program.

A stroke of genius by Dr de Vries of AGRA, was to continue funding the students after graduation. This has allowed them to continue their PhD breeding programs to the point of releasing many new crop varieties, lines and hybrids.

"Our students do not lose momentum in the breeding of their crop, after graduation they just blossom!" said Professor Laing.

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