

## **New Focus on Breeding As ABS Project Gears Up for Phase Two**

The Africa Biofortified Sorghum (ABS) Project's Phase I formally ends in mid-2010; in preparation for Phase II, the project has shifted focus to the early strategies required by the Breeding Program.

In South Africa, the Agricultural Research Council (ARC) will provide leadership while in Kenya, the Kenya Agricultural Research Institute (KARI) is the lead ABS Project partner.

The ARC breeding team, led by Dr. Nemera Shargie, has identified an ABS team leader, a molecular biologist with regulatory experience. The ARC is also planning to hire a Post Doc breeder and a lab technician to support the breeding efforts.

According to Dr. Shargie, the ARC has identified two locations where ABS selected material will be tested. The confined field site at Potchefstroom is currently being developed while the Burgershall site will be used as the winter nursery.

“South Africa identified four lines into which the ABS material could be backcrossed, based on the wide adaptability and farmers preferences,” Dr. Shargie says. “However, at a later stage, the two best fitting lines will be selected”.

He adds that “South African breeders believe that as long as the ABS sorghum cultivars have a significant advantage over the local varieties then there won't be a problem with the adoption of the cultivars by the farmers. Nonetheless, the breeding program will require PAC and regulatory assistance at the contained green house trials, confined field testing and commercialization stages”.

In Kenya, KARI the breeding team consists of all scientific disciplines required to make the project execution very comprehensive. According to Dr. Kamau Karari, “Kenyan breeders have identified one major location where the ABS material will be tested and several other testing stations”.

The KARI team has also identified lines into which ABS will be backcrossed. According to Dr. Karari, “the criteria used to select these cultivars were: (a) Popularity of cultivars in relation to high commercial potential, and (b) Non-tannin background as tannins inhibit protein digestibility. This would conflict with the ABS approach to high protein level and availability.

KARI believes that “the qualities envisaged in the ABS sorghum will convincingly market the product to the Kenyan farmers”. But like the ARC in South Africa, Dr. Karari says “a lot assistance from regulatory and PAC, especially in the area of gene flow, will be required”.