Uganda Groundnut Improvement Programme at a Glance

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Abstract: In Uganda, groundnut (*Arachis hypogaea* L) is the second most important legume after beans. The cultivated area is estimated at nearly 260,000 ha, representing 24.6% of the total arable land. On-farm pod yields are low, averaging 800 kg/ha of dry pods, compared to on-station yields of 3,000kg/ha. Sales from current production could potentially generate $344 million to the producers who are largely resource poor small scale farmers. The yield gaps are attributed to a combination of biotic, abiotic, cultural and political factors. Since the 1920s, research efforts have released 24 varieties, the most recent commercial varieties being the Serenut 1-14 series. These varieties have helped to alleviate some of the production problems. However, varied growing agroecologies, land tenure systems, diverse market preferences, and emerging stresses call for continuous research.

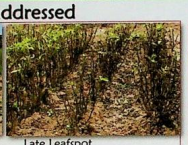
Our current research includes breeding for high oleic, leafminer resistance, confectionery, aflatoxin tolerance, and early to medium maturing varieties in high yielding groundnut rosette disease resistant backgrounds. We have initiated Marker Assisted Selection and adopted BMS for Digitalization of data capture, management, analyses and storage. A recently developed regeneration protocol will aid in introgressing additional traits.

To date, the groundnut breeding program has an active breeding pipeline releasing varieties and lines which have already been shared with National Programs across Africa (South Sudan, Ethiopia, Ghana, Mozambique, Mali, Malawi), Haiti and the USA with many additional National Programs making requests. We have strong partnerships in Research and Development among the African Countries, USAID, ICRISAT, and the Gates Foundation.

Constraints being addressed



Groundnut Rosette Disease (GRD)



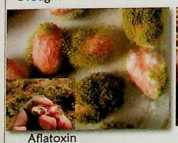
Late Leafspot



Drought



Leafminer



Aflatoxin



Dormancy



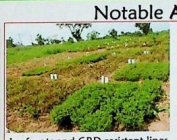
Groundnut oil





Confectionery groundnuts

Notable Achievements



Leafspots and GRD resistant lines



Multi-stress resistant Genetic stock



Early maturing and high yielding lines



Community based seed multiplication





Value addition: Peanut butter and snacks



Dissemination materials



Training and awareness creation



Regeneration protocol

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