

Improved Sorghum Variety: A Forgotten Gold in the Kenyan Drylands

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Key Policy Messages

- Improved sorghum adoption, production, commercialization and utilization offers golden opportunity for enhanced food security among drylands inhabitants of Kenya.
- Improved sorghum avails nutritional products through value addition and processing such as Keg beer, porridge, cookies, sorghum-millet blended *ugali*.
- Contract farming is one of the latest interventions for stimulating farmers' uptake, increase in land acreage under investment and production of improved sorghum.
- Devolved units and national government to embrace investment in sorghum value chain by strengthening the extension systems and inputs support services.

Issues

Despite numerous benefits and research accruing from improved sorghum products, the adoption, production, commercialization and utilization of sorghum products as staple food remains low in Kenya. The low uptake of improved sorghum varieties is attributed to limited extension services provision especially on availability and reliability of quality seeds, market outlets and limited policy documentation (Chimoita et al 2017). Moreover, the effectiveness of the government of Kenya extension sector service provision has declined so greatly during the last decade due to structural adjustment programmes (SAPs), liberalization policies, aged extension staff, low funding for operations and maintenance services which have led to weakened information dissemination networks. Therefore *'If such challenges are not addressed, then it will not be possible to achieve the Kenya government's food and nutrition security agenda and the big four agenda addressing communities living in arid and semi-arid areas'*

Interventions

Documented evidence shows existence of improved technologies in the research institutions on the minor crops in Kenya and worldwide, (ICRISAT 2006). For instance, the Kenya Agricultural Livestock and Livestock Research organization (KALRO) in collaboration with International Crops Research Institute for the Semi-Arid Tropics, have developed and released numerous improved sorghum varieties suitable for arid and semi-arid regions of Kenya ICRISAT. Further there exists a contract farming as the latest intervention for stimulating farmers' uptake and confidence in investing and production of improved sorghum in Kenya.

According to Chimoita et al (2017), the market outlets for improved sorghum products include contract market by East Africa Brewery Limited agents (48%), local markets (42%), farmers' organizations (5%) and others (4%) including National Cereals and Produce Board.

The improved sorghum production avails enormous income generation avenues and nutritional products through value addition and processing of products such as *Keg* beer, porridge, cookies, sorghum-millet *ugali* as indicated by (Figures 1) and other products such as animal feeds, manure and bio-fuel (Kenya Vision 2030, 2007; MoA, 2010).



Sorghum silage for animal feed



Senator Keg Beer



Blended wheat-sorghum bread



Sorghum-millet *Ugali*, served with
Chicken piece and vegetables



Sorghum Cookies



Sorghum porridge

Figure 1: Some of the products made using improved sorghum variety

East Africa Brewery Limited (EABL) contract arrangement is a suitable intervention for stimulating uptake and increasing farmers' confidence in investing and production of improved sorghum in Eastern and Western Counties in Kenya. *'For instance, sorghum farmers contracted by EABL have demonstrated exponential yields achievement from 15 tonnes in the year 2014 to 60 tonnes in the year 2018 (EAML, 2018) with per kilogram price of sorghum of KES 23 in 2014 and KES 37 KES in 2018'.*

Key Policy Recommendations

Short term policy recommendations to uptake of improved sorghum include:

- Immediate need for farmers' sensitization on contract farming arrangement strategies.
- Enhanced uptake and implementation of improved sorghum technologies through farm demonstrations, mobile phone text technologies and empowered extension agents.
- Rapid support from devolved County and National governments through capacity building sessions to farmers and extension agents

Medium to long term policy recommendations to uptake of improved sorghum include:

- Devolved units enhancing rapid promotion of improved sorghum production by encouraging farmers in allocating enough land, importance of modern contract farming that stimulate rapid uptake and production of improved sorghum technologies
- Policy formulation farmers on contract farming, through training on the modern contract farming arrangements and the county governments investing more in strengthening the extension systems.

Acknowledgements

This policy brief is an extract from my (PhD). I must appreciate mentorship, financial support and training by the AgriFoSe 2030 program and the International Livestock Research Institute (ILRI) on policy briefs preparation. Thank you, Dr. Paul Guthiga, Prof. Cecilia Onyango, for your valuable technical input and editorial support.

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