

Groundnut Value Chain and Market Systems Analysis in Uganda

Demand for groundnuts is high in Uganda. Nearly a third of farming households grow groundnut, but suppliers rely on imports from Tanzania and still struggle to find enough nuts. The main commercial processors in Uganda are limited by the amount of raw product they can buy. Improved varieties make farms much more efficient – decreasing disease pressure, increasing yield and adding profit.

The study, funded by the Feed the Future Innovation Lab for Peanut, found that increasing productivity could allow farmers to take advantage of the demand, while improving connection between farmers, traders, processors and marketers would provide more value across the value chain.

Demand

The deficit between supply and demand for groundnut in Uganda is growing, reaching 55,000 metric tons in 2020. The shortfall leads to lost opportunity for Ugandan farmers and manufacturers. Imports from Tanzania help to meet demand, but are not enough to supply manufacturers.

Productivity

Despite the demand, overall the groundnut crop produced by Ugandan farmers is shrinking by nearly 3% a year due to a reduction in the cultivated area for groundnut farming.

Groundnut productivity is low compared with other countries in Eastern Africa, ranking second lowest after Rwanda. Uganda's average groundnut yield from 2016 to 2021 was 597 kg per hectare, compared to an average 1200 kg per hectare in Kenya, 3000 kg/hectare in China and 1700 kg/hectare in India.

	Local	Red Beauty	Serenut 2
Output (bags/acre)	9.4	8.6	16.7
Total revenue	638,000	843,450	1,167,580
Total variable costs	620,860	664,950	690,370
Gross margin (UGX/acre)	17,140	178,500	477,210
Gross margin (UGX/bag)	1,823	20,756	28,575

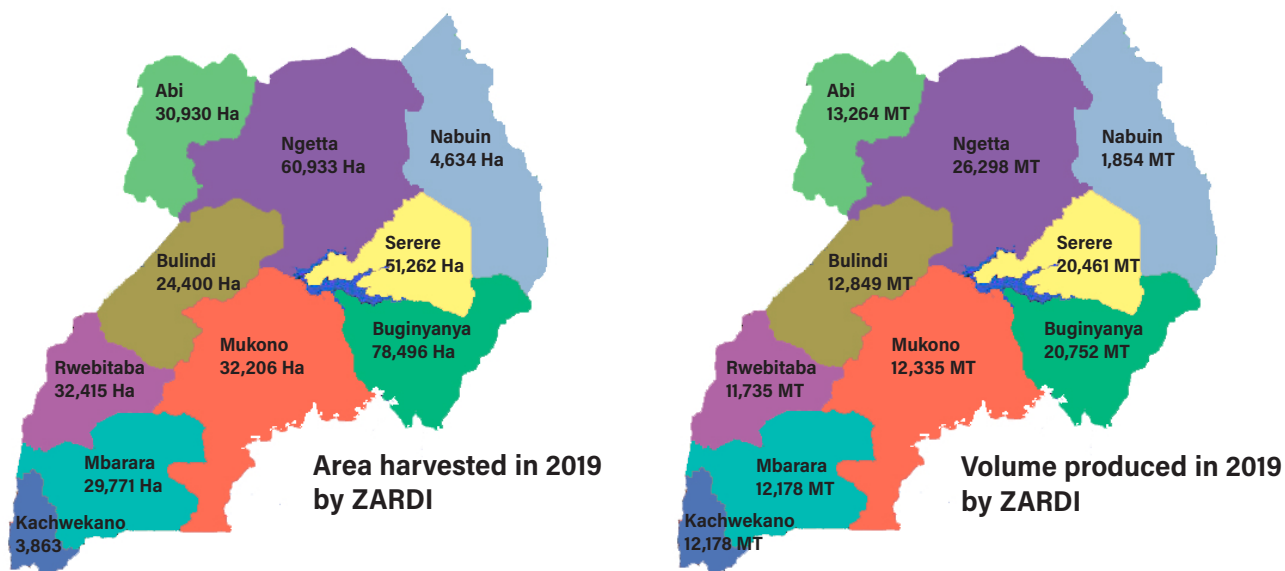
Varieties

Improved varieties offer the best protection against diseases like Groundnut Rosette Disease, which can cause total yield loss. An older variety that is cultivated by the most farmers, Red Beauty, is desirable in the market, but highly susceptible to GRD.

On the other hand, improved Serenut varieties can reduce the risk of yield loss due to disease and increase farmers' profits. A comparison of local varieties, Red Beauty and Serenut 2 found that a farmer's profit grew substantially with the older improved variety and again with the newer improved variety – from 17,140 UGX/acre for a local variety to 178,500 UGX/acre for Red Beauty to 477,210 UGX/acre for Serenut 2, mostly due to the much higher yield from Serenut 2.

Geography

Groundnut production is concentrated in the Eastern and Northern parts of the country, specifically in Ngetta, Buginyanya and Serere ZARDIs, though these ZARDIs don't necessarily have the highest yield.



Seed Systems

Seeds get to farmers through a formal seed industry, comprised of 23 registered companies, and an informal system. But both rely on public institutions like the National Agricultural Research Organisation (NARO) for improved varieties, basic seed and quality control services. NARO has been limited in its ability to provide these services, making farmer-saved seed and community-based seed banks important in the overall seed system.

Challenges for processors

Psalms Food Industries demonstrates the challenges facing processors. The company has a strong interest in roasted groundnuts and peanut butter, but the company is limited in the amount of product it can produce due to quality and quantity challenges. With the capacity to process 1.5 MT/day of shelled groundnut, the company can find an average of only 200 kg/day due to limited supply, as well as problems with mixed quality and aflatoxin contamination in sourced nuts.

Recommendations

Promote adoption of high-yielding varieties. Encourage farmers to adopt high-yielding varieties that have proven to be more productive and resilient. This can be achieved through awareness campaigns, training programs, and partnerships with research institutions and seed companies to ensure the availability and accessibility of improved varieties.

Strengthen the value chain through local and regional market linkages. To connect farmers, traders, processors and exporters, support the formation of farmer cooperatives or associations, provide market information, and foster the development of buyer/storage/sheller networks to supply processors.

Promote value addition and market diversification through processing technology enhancement. Encourage the production of value-added groundnut products, such as roasted nuts, peanut butter, oil and confectioneries to capture higher-value markets.