

HOW CASSAVA CAN CHANGE THE HIGH FEED COST BURDEN IN SOUTH AFRICA'S LIVESTOCK SECTOR

By: Dr Moses **Lubinga**, Senior Economist: Trade Research

In South Africa, livestock farming includes cattle, sheep, goats, swine and poultry, amongst others. It is the largest agricultural sub-sector accounting for 79% agricultural land, over 46% agricultural gross value, and employs more than 21% of the workforce in the agricultural sector (StatsSA, 2020; Business Wire, 2020). Across all the different livestock industries, animal feed among other factors including transboundary diseases and climate variability, is one of the most important inputs responsible for the high production costs. For instance, South African Poultry Association (SAPA) (2020) reckons that any increase in global maize and soyabean prices lead to higher feed costs in South Africa but such hikes in feed costs is not often matched with an increase in the prices of locally produced chicken products. SAPA posits that this renders the local industry more vulnerable to chicken imports since the domestic producer broiler price remains higher than the import parity price. Given the constantly increasing cost of high-quality feeds and the need to ensure that households are food secure, this article highlights the untapped opportunities cassava presents in contributing towards alleviating the burden of high feed costs, among other economic aspects such as unemployment and food security.

Given that cassava can stay long in the field even when it is mature, it is a good food security crop in rural communities which are constrained by access to basic storage and agro-processing infrastructure. Thus, overtime (spanning from days to months) households can harvest small quantities of tubers needed for a meal of a day without necessarily incurring high postharvest losses.



* Picture: www.pexels.com

Physical Address:

536 Francis Baard Street,
Meintjiesplein Building, Block A,
4th Floor, Arcadia, 0007

Postal Address:

Private Bag X935, Pretoria,
0001

Telephone: (012) 341 1115

Website: www.namc.co.za

Follow us on:



Cassava is a root vegetable with numerous uses both as food or a raw material for industrial purposes. From the animal feed perspective, cassava has been proven to be a cheaper and viable alternative that can replace maize at varying combinations without deleterious effects on both production and performance of livestock. Whereas no known empirical studies have been conducted in South Africa, rural communities in cassava producing communities of South Africa use cassava leaves, stems tubers & pellets to feed animals. Furthermore, existing evidence from other African countries presents opportunities to explore and learn some lessons. For instance, cassava has been successfully used in Ghana (Linden, 2013). Amole et al. (2022) provide a synthesis of the various research that has been carried on using cassava peels as an input in animal feeds while examining the production and economic performance of livestock used. In brief, authors advise that cassava peels can replace close to 75% of maize in diets of growing swine without negatively affecting production and economic performance of pigs. Cassava peels are 38% financially beneficial in comparison to the use of maize.

Findings from chickens, sheep and aquaculture also indicated that cassava can serve as both an alternative and complimentary crop in feed manufacturing to the commonly used inputs like maize in feed formulations (Amole et al., 2022). The benefit in this is that if cassava-based formulations are explored by the livestock sector, reduced pressure on the maize industry to supply grains for both animal feed and human consumption is foreseen. This implies that land suitable for white maize production might be allocated for white maize, thereby boosting maize production available for human consumption. This is bound to render households to be more food secure given the likely increase in the availability of white maize. However, a sustainable supply and use of cassava in the animal feed industry requires that the cassava value chain is developed further. Currently, whereas the Agricultural Research Council (ARC) bred cultivars that are suitable for South Africa's agroecological conditions, there is a need to create more awareness about the crop, its uses and benefits across the country.

Due to climate change, the productivity and areas suitable for maize production are bound reduce (Estes et al., 2013). However, cassava is a climate resilient crop, capable of thriving and give good yields even in marginal lands with minimal fertilizers. From the job creation perspective, BFAP (2011) reports that by 2025 compounded annual growth rate of employment in the maize industry will have dropped

by about 2%, relative to the employment in 2014. This directly relates to high unemployment rate (34.5%) observed in the past 3 years. However, BFAP (2011) further shows that vegetables (cassava inclusive) exhibit both a high growth potential and are labour intensive.

Conclusion

Cassava can be used as a cheaper alternative animal feed ingredient to replace or compliment ingredients like maize. Exploring of cassava as an alternative presents a number of opportunities, including reduced the cost of production in the livestock sector, job creation and improved food security. Thus, it is commendable that both private and public sector collectively consider investing more in developing the cassava value chain in South Africa.

References

- Amole, T., Adekeye A., Adebayo A., Okike, I., Duncan, A. and Jones, C. (2022). High-Quality Cassava Peel® (HQCP®) mash as a feed ingredient for livestock – a review of feeding trials. ILRI Project Report. Nairobi, Kenya: ILRI.
- BFAP (2011). The Contribution of the Agro-Industrial Complex to Employment in South Africa.
- Business Wire (2020). Farming of Animals in South Africa, 2020 Market Report.
- Estes, L. D. et al. (2013) Projected climate impacts to South African maize and wheat production in 2055: A comparison of empirical and mechanistic modeling approaches. *Global change biology*, 19 (12), 3762–3774.
- Linden, J. (2013). The Poultry Site: Cassava as Animal Feed in Ghana: Past, Present and Future. Online at: <https://www.thepoultrysite.com/articles/cassava-as-animal-feed-in-ghana-past-present-and-future>
- SAPA (2020). South African Poultry Association: 2020 Industry profile. Available from <http://www.sapoultry.co.za>.