

SMART FARMING TIMES

True Stories, Real Solutions

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Free Issue



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Welcome to issue 8 of the Smart Farming Times magazine, a magazine that specializes on delivering Agricultural content from Botswana and the world.

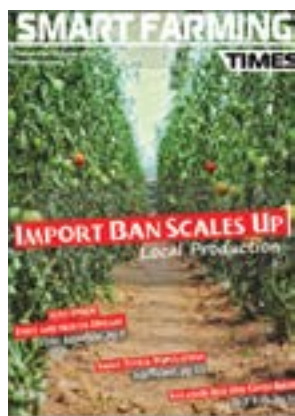
As Smart Farming Times, our tagline “True Stories, Real Solutions” shows our commitment to offer factual, relatable content that will in one way or another offer an impact to people’s lives and ways of thinking.

In this issue we have added a new interactive feature to the magazine for easy navigation. (So you don’t have to scroll too much from contents page to your favourite stories) Click on the headline to jump to the exact page with the story.

For our mobile device readers you will need Adobe pdf reader to enjoy this feature. Desktop and Laptop readers will only need your browsers.

We hope you enjoy one or two if not all the stories and make sure to follow us on Facebook, Tik Tok and subscribe to our Youtube channel (Smart Farming Times Network) to stay up to date with the best Agricultural news.

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U.S CATTLE: WHAT'S IN IT FOR INDIGENOUS BREEDERS?

(Images by Ministry Of Agriculture)



By Oteng Ntlotlang

In a bid to increase productivity of the beef sub-sector, the Government of Botswana through the Ministry of Agriculture recently received 161 live breeding cattle procured from Hungerford, Texas in the United States of America. The purchase according to government, was in line with the Reset Agenda in which Assisted Reproductive Technologies (ART's) such as Artificial Insemination (AI) and Embryo Transfer were identified as technologies that can be used to improve and develop the local livestock sub-sector.

When speaking on the occasion of officially receiving the cattle in Gaborone recently, President Mokgweetsi Masisi revealed that government has invested P25 million in procuring the 162 live breeding cattle (of which 1 bull was left in America due to ill health and will be replaced by semen equivalent to the bull price), from some of the world's renowned breeders as such the animals were of superior genetics.

He stated that the cattle will be used in the production of germplasm in the form of embryos and semen for both local and export market. In addition, the cattle are anticipated to significantly contribute towards the national goal of increasing the dwindling national herd and its genetic merit.

"Despite the significance of the livestock sub- sector in this country, the national herd has continuously been on the decline path from 3 Million cattle in 1979, 2.1 Million in 2004 to 1.7 Million in 2015," revealed Masisi.

The animals which were sourced from breeders such as J.D Hudgins Inc, V8 Ranch, Wendt Ranches, Santa Elena, and Allen Cattle Company among others, were made up of 106 White Brahman bulls, 21 White Brahman heifers,

4 Red Brahman bulls, 2 Black Angus, 2 Red Angus bulls, 5 Charolais bulls, 5 Brangus bulls, 10 Beefmaster bulls and 7 Santa Gertrudis bulls.

Masisi stated that the live breeding cattle import initiative complemented the envisaged upgrading of the Ramatlabama National Artificial Insemination Laboratory into a centre of excellence and an export facility.

A total of P93 Million is said to have been set aside for the upgrading project which will include upgrading of the infrastructure and introduction of AI in small stock, as well as Multiple Ovulation Embryo Transfer in both small stock and cattle.

The project which is expected to be completed by end of March 2025, is envisaged to enable the production of about 8.4 Million semen straws and 300 embryos per year, against the current annual production of 22 500 semen straws.

When addressing the media during the tour of the Ramatlabama Artificial Insemination Laboratory Centre, Minister of Agriculture Fidelis Molao, said the procured

cattle will make semen affordable to small-holder farmers as the imported semen was proving to be expensive for them as Government was implementing the Cost Recovery Policy when selling it.

"I can assure everyone that the price of locally tapped semen from these genetics will be much affordable for the benefit of all farmers, especially the smallholder farmers, thereby increasing our cattle herd and genetic merit," said Molao, adding that, "In short it is an equalizer for every farming family like free education has been to all Batswana, rich and poor."

Meanwhile, the initiative has been met with mixed feelings as some are concerned that the initiative risks eradicating the indigenous breed which is well adapted to the country's farming conditions.

However, Anthony Macharia, an Agricultural Economist at the Bosa Bosele Training College, is of the view that there was no need to be alarmed as it was important to understand that the assisted reproductive technologies are only meant to assist farmers who want to have animals which give better value.

When speaking in an exclusive interview with Smart Farming Times, Macharia stated that the technologies presented indigenous cattle breeders with a cost effective method of getting better value from their animals without having to worry about buying an exotic pure breed bull which will require maintenance from the farmer in addition to the anxiety they may have about stock theft.

He further indicated that crossbreeding is meant to be performed only on selected



(Images by Ministry Of Agriculture): Imported bulls settled in at Ramatlabama A.I and Research Centre.

animals with specific targets on the characteristics to improve.

With regards to embryo transfer, Macharia said the technology was in no way a threat to the indigenous breed as in this case the cow's uterus will only be used as an incubator for an embryo of a different animal breed as per the farmer's choice. He said this process does not interfere with the host animal's genes. He argued that this method is meant to assist a farmer who wants to own a pure breed of a different animal to be able to do so cost effectively.

Meanwhile, an Animal Science expert (name withheld) told this publication that crossbred animals are meant for market and not to be kept as replacement stock as that will be an intellectual property infringement.

Studies show that it is important to conserve indigenous breeds since their continued existence provides genetic material to enable imported breeds to become locally adapted.

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GOV'T TO TIGHTEN GRIP ON STOCK THEFT BAIL APPLICATION



By Staff Reporter

As stock theft continues to threaten the sustainability of the livestock sub-sector in the country, government intends to tighten the grip on granting bail to stock theft accused persons. When speaking during the launch of Kgomo-khumo in Letlhakeng recently, Minister of Justice Machana Shamukuni, said they are drafting new conditions for bail and were expecting to complete the exercise by the end of June. He said they are intending to have the new bail conditions in effect before the end of the year.

Shamukuni stated that in 2022, they recorded a total of 169 stock theft cases at Magistrate Courts across the country in addition to 253 backlogged cases. He indicated that they have realized repeated offenders hence the need to make it difficult for the perpetrators to be granted bail.

In addition to making it harder to get bail, Shamukuni revealed that the 11 stock theft specialised courts across the country are being fully equipped to address the backlog of cases.

Furthermore, in order to avoid cases being transferred to Magistrate Courts, he said they are considering introducing a hefty transfer fee for suspects who want their cases to be settled at the Magistrate Court instead of the Customary Court.

He said suspects often appeal for case transfer as they are aware that the case

will be delayed due to backlog and also that they will be easily given bail, thus enabling them to repeat the offence.

“For a suspect to appeal for case transfer, it is a clear indication that they are financially stable as they can afford the services of a lawyer, so we want to introduce a hefty transfer fee to make it difficult for them to do so as we are of the view that most of these cases can be promptly dealt with at the Customary Court,” stated Shamukuni.

For his part, Minister of Defense and Security Kagiso Mmusi, revealed that government has taken a decision to transform the Anti-Stock theft Division into a fully fledged Anti-Stock theft Department.

He said the intention is for the Department to be everywhere there is a Police Station across the country. Mmusi said government found it fit to have a permanent and well equipped Anti-Stock theft Department as it was evident that dealing with stock theft cases required different policing dynamics.

Furthermore, he stated that the purchase of latest technologies such as unmanned vehicles and CCTV cameras was on going to help in the fight against crime in the country including stock theft. **SMART FARMING TIMES**

IS DAIRY GOAT FARMING A WORTHWHILE INVESTMENT?

By Oteng Ntlotlang

According to the Ministry of Agriculture, the local demand for liquid milk is 65 million litres per year. Of this, local dairy farmers were able to produce a total of 7.3 million litres for cattle and 13 009 litres of Goat milk during the year 2022-23.

Statistics further indicate that for the year 2022-23, there were 54 active dairy cattle farmers of which only two were large scale with a herd size of more than 250 dairy cows, while for dairy goats there were only 10 active breeders owning between 2-35 dairy goats.

These statistics, according to dairy enthusiast and farmer Samuel Rannobe, signify a wide opportunity for local farmers as well as aspiring farmers to consider going into dairy farming, especially dairy goats. Rannobe who is a former lecturer at Botswana University of Agriculture and Natural Resources (BUAN), considers himself a pioneer of dairy goat farming in Botswana having started around 1990 with 3 Saanen and 2 Alpine crosses from



Zeerust, South Africa, which he bought for R200 each at the time.

Speaking in an exclusive interview with this publication at his home in Molepolole, Rannobe narrated that around those years, there used to be Botswana Agricultural Teachers Association (BATA), which used to have an event where they gathered to discuss diverse issues within their line of work, and he used to exhibit his animals at this event as well as sell milk.

During one such event, one Dr Mphapo who was a lecturer at the then Botswana College of Agriculture (BCA) now BUAN, enquired about the goats and where she can find them in order to have the school buy them. Rannobe argues that, it was after that purchase by the then BCA that dairy goat farming awareness was unlocked in Botswana.

Rannobe who has over the years farmed with different dairy goat breeds such as Saanen, British Alpine, Toggenberg, and BDE among others argued that there are many benefits to dairy goat farming, and it has the potential to transform Botswana's economy if given the necessary support.

He stated that dairy goat farming was not much different from beef farming in so far as management is concerned, and the animals were more affordable as compared to dairy cattle.

Dairy goat milk is said to be packed with nutrients such as Potassium, Calcium, and Vitamin A among others. The milk is further said to have low risk of allergies as



Images by Faheem Kala



Images by Faheem Kala

studies indicate that 1 in 4 children who were allergic to cow milk were not allergic to goat milk. The milk is also said to be easier to digest.

Meanwhile, the passionate dairy farmer revealed that he has noted few differences between the various goat breeds.

Rannobe said that he has found out that although Saanen has high milk production, it was a bit delicate and sensitive. He argued that the breed was not as hardy and adaptable to the country's harsh farming conditions especially the excessive sun heat.

Skin cancer and abscess are some of the challenges one can expect when farming the breed. He said it was better to crossbreed it with the Tswana goat for better adaptability.

Rannobe stated that although other breeds were a bit hardy and adaptable to the harsh farming conditions, their milk production was lower as compared to Saanen. He however said their milk was best for making cheese.

Despite stating that the dairy goat animals do not require any special management practices much different from the one given to beef animals, Rannobe cautioned that

the trick with dairy goats is to stick to the same milking time throughout to minimise risk of mastitis, which he said was one of the biggest challenges in dairy farming. Animals must also be allowed to walk about as exercise was important.

Rannobe is a true all round dairy enthusiast who is not only in to dairy goat farming but is also in to dairy cattle (small scale) and has once tried his luck with dairy sheep but was not successful.

He called on government to introduce practical dairy farming lessons in schools so as to inspire interest of young people in dairy farming.

Rannobe further encouraged women and people living with disability to venture into dairy goat farming as it was easier to manage than dairy cattle.

As one of its efforts to develop the dairy sector, government constructed two milk collection and pasturing plants in Pitsane and Serowe for use by dairy farmers under the umbrella of the Dairy Associations.

It is anticipated that optimal utilisation of the plants would result in increased milk production, improved milk quality, and improved marketing. **SMART FARMING TIMES**

LIVESTOCK SECTOR EXECUTIVE KNOWLEDGE EXCHANGE MEETING

The Assistant Minister of Agriculture Molebatsi Molebatsi attended the Livestock Sector Executive Knowledge Exchange Meeting in Uruguay. The outcome of the meeting is expected to inform the Ministry's policy and strategy to develop a fully traceable, competitive and sustainable pasturebased livestock system.

A system that relies on its quality beef and welfare to thrive and access the most demanding marketing in the world.

NO ACTIVE BIRD FLU OUTBREAK IN BOTSWANA

The Ministry of Agriculture quashed rumors and speculation on a possible outbreak of Avian Influenza (Bird flu) in Botswana. the Ministry has stated that the information circulating on Social Media discouraging the public not to consume eggs due to an alleged outbreak of avian influenza is misleading.

The Ministry further said the public is however advised to remain vigilant and report any clinical signs of illness in wild birds and poultry. All suspicious cases may be reported to the nearest veterinary office or to the Director of Veterinary services. Number 368 9504 toll free number 17755.

WORLD ENVIRONMENT DAY 2023

World Environment day 2023 was held under the theme Beat Plastic Pollution #BeatPlasticPollution. World Environment day is a global event commemorated on June 5, to promote awareness with regard to environmental protection. This year focussed on preventing plastic from endangering our present and the future of coming generations.

**Did You Know Botswana only
has two Rabbit Farmers
Associations, struggling to meet
National Demand?**

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ASSOCIATIONS SERVE FARMER'S INTEREST

By Staff Reporter

Farmers have been called to join or consider forming their own local association to better address their needs and advance Botswana's agricultural sector.

In an interview *Smart Farming Times*, two local farmers association shared the importance of local association in general to Botswana and farming community. Botswana Farmers Association is an umbrella association for different sectors within agriculture coming together.

The Association has over 2000 members across Botswana and it was started in 2016. Botswana Farmers Association's Boniface Monnawapula revealed that in Botswana there is a lot of individualism within the agriculture sector. This then affects how knowledge and skills are shared within the agriculture sector.

Monnawapula further revealed that individualism usually costs farmers when it comes to supplying large markets as they do not have enough to meet demand. From his point of view, Monnawapula believes coming as a group is much better as even financial aid institutions offer better funding options when proposals are done as a group when compared to individuals applying.

Associations provide farmers with a voice and it becomes easier for Government to identify different farmer groups within the agricultural sector. Government can act better when it knows their demographics and psychographics.



Pic internet

Kgatleng Poultry Farmers Association is a local Poultry Association with 77 members, started in 2013 and serving farmers based in Kgatleng district.

The Association's Assistant Chairman Moses Moilwane told Smart Farming Times that "Associations allow farmers to have one voice when lobbying Government. It's not easy but it's important that each and every village to have an association, so that farmers can work together to supply the industry."

To register an association, the Assistant Chairman said that farmers need to familiarise themselves with the department of Agribusiness office located at the Ministry of Agriculture branches. This is where farmers can get assistance on formation and registration of their association.

SMART FARMING TIMES

BAMB LAUNCHES FARMERS LIFESTYLE SHOP

By Staff Reporter

Botswana Agricultural Marketing Board (BAMB) has recently launched a first of kind Farmers Lifestyle shop aimed at addressing customer needs and positioning it closer to the people.

BAMB earlier this year signed a Memorandum of Understanding (MOU) with Botswana Meat Commission (BMC) to mark a start of strategic partnership to explore future prospects of collaboration for commercial purposes, mutual assistance with reference to BAMB retail outlets and joint marketing.

BAMB Chief Executive Officer (CEO) Lameck Nthekela said "We are opening our Farmers Grand Store, which is one of the few farmer's lifestyle shops that we have started recently. BAMB's first farmers store is located in Gaborone West industrial."

The store was a gateway to supply people in Gaborone and the south. BAMB was receiving an overwhelming number of requests from the store and the store could not supply the whole of Gaborone and surrounding area.

The BAMB CEO further said "BAMB decided to open another store and place it towards the



gateway to the North and serve people of Gaborone North. Located in Setlhoa, the BAMB grand store now offers grains, pulses, farmer's lifestyle wear, implements, vaccines and medicines. Through the partnership with BMC we have beef portions, canned beef products all in our BAMB store."

BAMB was established by an Act of Parliament, mandated to provide a market for locally grown scheduled crops such as cereals, pulses/beans and oilseeds, and ensure that adequate supplies exist for sale to customers at affordable prices. **SMART FARMING TIMES**



Above BAMB (r) and BMC(l) products at the new shop



Above BAMB and BMC leadership touring the new shop and learning about it's offerings

FARMERS ASSOCIATION BRINGS CYCLING TO FARMING



By Staff Reporter

Farming and Cycling two physical activities one would think unrelated!! Not according to Botswana Farmers Association who recently held their annual cycling day to promote healthy lifestyle through physical activity and balanced diets.

According to Botswana Farmers Association combining the two activities was necessary because in farming or agricultural related activities require one to be physically fit to carry out day to day tasks. This physical fitness can be achieved through activities such as cycling and farming is important because it produces the fresh food people need for their balanced diets.

In an interview with Smart Farming Times, Botswana Farmers Association's Boniface Monnawapula revealed they held this cycling day with the aim to encourage people to be fit and at the same time have farmers exhibit, sell their produce and also teach people about farming related activities. This is all done in the same place and they engage youth to not view farming as this tedious activity.

"Many things get out fashion but food does not. Everybody needs food every day so young farmers should get into farming because it is the future."

The Local Enterprise Authority (LEA) provided a venue for Botswana Farmers Association to host their inaugural event through LEA Glen Valley Horticultural Incubator. LEA Head of Sector Innovation Monyadiwa Masilo said "LEA has extended a helping hand to Botswana Farmers Association by providing a venue. We have an interest in farming to help farmers commercialise their enterprise, help farmers access markets and providing technical assistance."

An exhibitor at the event Phodiso Kabomo who is the Managing Director of Asele Poultry, shared with Smart Farming times significance of the day. He said "the event has benefitted me by allowing me to display banners, pass out flyers and sell some eggs. Asele Poultry was started in 2021 and it was important for me as a small business to attend these kind of events, as it allows for me to network different people and engage customers," Kabomo said.

In conclusion Masilo said "I would like to advise young people to get into agriculture because it is the future. Many things get out fashion but food does not. Everybody needs food every day, so young farmers should get into farming because it is the future." **SMART FARMING TIMES**

THE SILENT SHIFT: FEMALE COWS IN FEEDLOTS AND ITS IMPACT ON BOTSWANA'S BEEF PRODUCTION

Exploring the Implications of Selling Female Cows on the Future of Botswana's Cattle Industry

"Preserving the Balance between Male and Female cows within Herds and maintaining Genetic Diversity are essential for ensuring a Sustainable and Resilient Cattle Industry."

Introduction

In the vast expanse of Botswana's agricultural landscape, where cattle rearing has been an integral part of the nation's heritage, a subtle yet significant shift is taking place.

Farmers, in pursuit of immediate returns, have been increasingly selling female cows, including cows, bullying heifers, and in-calf heifers, to feedlots.

This emerging trend has caught my attention and other experts, who are concerned about its potential impact on Botswana's beef production.

In this article, I delve into the intricacies of this issue, exploring the reasons behind this practice and its potential implications for the future of Botswana's cattle industry.

Understanding The Dynamics

Traditionally, cattle farming in Botswana has focused on maintaining a balanced male-to-female ratio within herds. Female cows play a vital role in sustaining the cattle population by contributing to the reproduction and growth of the herd.

However, the lure of immediate financial gains from selling females to feedlots has led to a significant departure from this long-standing practice.

Reasons Behind The Trend

One of the primary drivers behind the increasing sale of female cows to feedlots is the rising demand for beef in Botswana and beyond coupled with a decrease in the national herd over the past years. As urbanization and economic

Guest Column

growth continue to fuel the appetites of consumers, the demand for high-quality meat has soared. Farmers, enticed by the prospect of higher profits, have turned to selling females.

Another factor contributing to this trend is the labour-intensive nature of cattle farming. With a shortage of skilled labour and semi-skilled labour in the agricultural sector, farmers face significant challenges in managing large herds effectively.

Selling female cows, which require additional attention during breeding and calving, reduces the workload and allows farmers to focus their resources on more manageable aspects of cattle rearing.

Unintended Consequences

While the immediate benefits of selling female cows to feedlots may be enticing, the long-term consequences on Botswana's beef production are cause for concern.

The dwindling number of female cows in the national herd poses a significant threat to the overall cattle population.

As birth rates decline and breeding opportunities diminish, the future sustainability of the industry comes under question.

Furthermore, the practice of selling females compromises the genetic diversity of the national herd. Each cow possesses unique genetic traits that contribute to the resilience, disease resistance, and overall productivity of future generations.

By prioritizing short-term gains over the preservation of diverse genetic resources, Botswana risks losing the potential for improved beef quality and adaptability to changing environmental conditions.

Preserving The Balance

To safeguard the future of Botswana's cattle industry, it is imperative that farmers, policy-makers, and stakeholders come together to address this emerging challenge. Strategies

aimed at encouraging farmers to retain female cows in their herds, such as incentivizing breeding programs, providing technical assistance, and enhancing access to market opportunities for breeding animals, should be explored.

Additionally, increasing awareness among farmers about the long-term consequences of selling females and promoting sustainable cattle farming practices can help shift the narrative.

Empowering farmers with knowledge about improved breeding techniques, efficient herd management, and the economic benefits of preserving female cows could incentivize a more balanced approach to cattle rearing.

Conclusion

The sale of female cows to feedlots in Botswana poses a significant risk to the future of the nation's beef production.

While the allure of immediate financial gains may be tempting, it is vital to recognize the long-term implications of this trend.

Preserving the balance between male and female cows within herds and maintaining genetic diversity are essential for ensuring a sustainable and resilient cattle industry.

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CLIMATE SMART DIET MANAGEMENT OPTIONS FOR LIVESTOCK



Source: CCADERSA

Climate change, especially prolonged drought events, reduce the availability of feed and water for livestock. This Decision Tool aims to help field-level extension staff make climate smart decisions on which diet management option best suits their farmers' context. This tool is not designed as a technical guide to implementation.

It is designed to assist extension staff in making climate smart decisions on improvements to their farming systems with their farmers as clients. Reference to technical guides relevant to the practices and technologies outlined are included at the end of the tool.

The tool focuses on some of the Best Bet Climate Smart Diet management options for livestock production in the Southern African Development Community (SADC) region. These are just some of the many options available.

They are listed in no particular order and have been selected as best bet because: They are climate smart, they are applicable in multiple agro-ecological zones across the region and have high potential to address major constraints to livestock production in the region.

To make climate smart decisions on diet management options, we need to understand current management practices for each variety of livestock in the farming system.

This includes the following elements:

Livestock holdings: Type and numbers (age, male and female, should all be recorded)

Livestock housing: Housing structures, if any? Bedding used, if any? • Housing times – day/night/seasonal changes? Are animals all housed together or are they separated by age, sex and species? Are feeding troughs provided?

Livestock feeding: Stall fed, tethered, open grazing or a combination? How does this change over the year? Where do animals graze (if they do)? What plants/residues/crops/trees do the animals feed on? How do feeding habits change throughout the year?

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