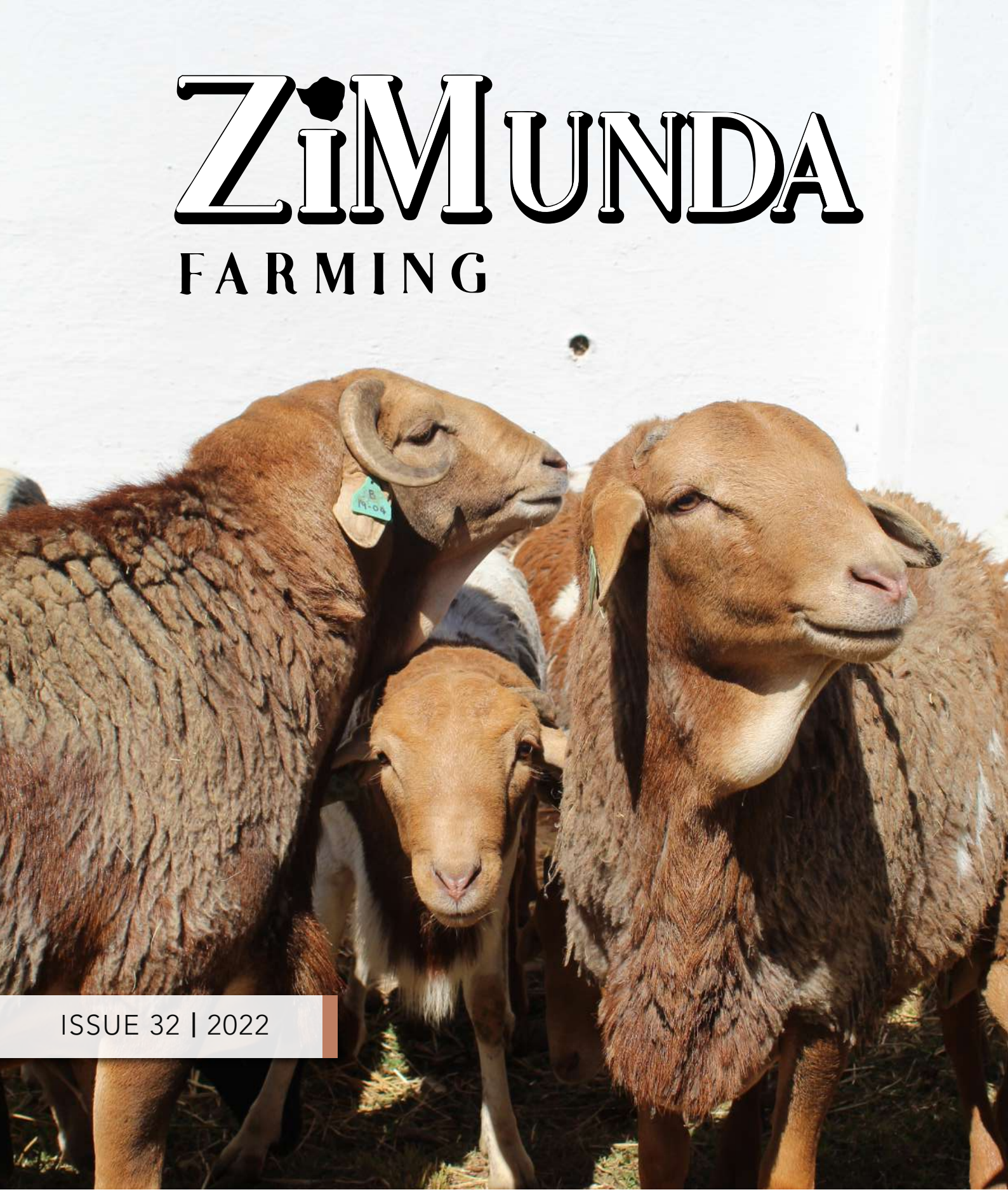
ZiMUNDA FARMING



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Zindu

From the Editor

To our Valued Readers,

Excitement and enthusiasm for field days saw masses of farmers and agricultural companies prepare for the ADMA show. It had been particularly sad that because of the Covid-19 pandemic, most agricultural shows in the year 2020 and 2021 had to be shelved. The slow changes back to normalcy 'after the pandemic' is very welcome - Agricultural Field days and Shows are once again becoming the buzz of the day.

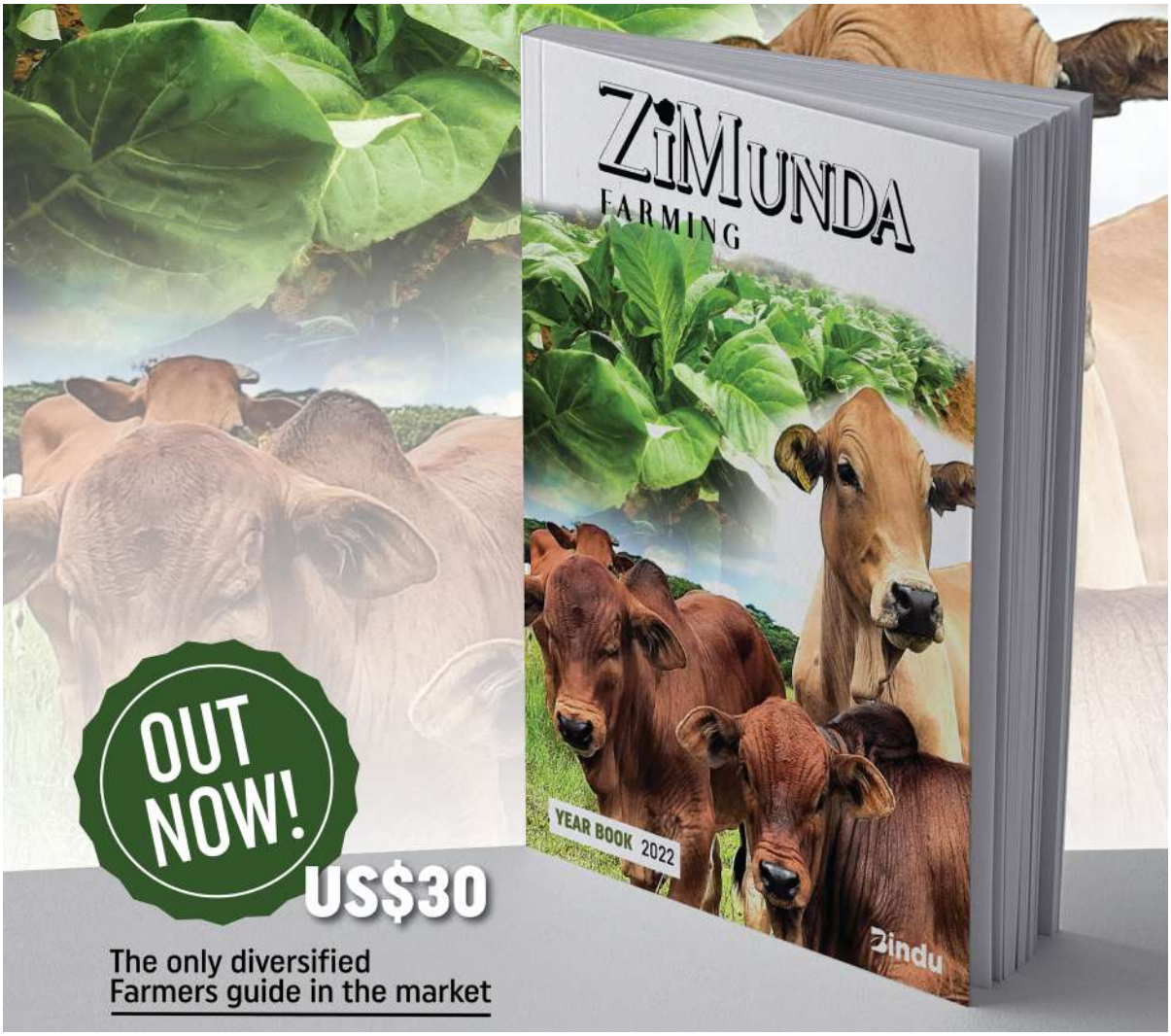
Over the past few months, it has been a great pleasure for the ZiMunda team to attend field days such as those held by ART farm, Charter Seeds and the commercial dairy field day at Mafuro Farming in Marondera.

Field days give farmers an opportunity to learn from experts (key speakers and industry leaders); meet and interact with other fellow farmers; learn new technologies and practices; and make new connections. Agricultural companies are able to promote themselves by bringing their products and services face-to-face with the farmers.

The ZiMunda Farming team hopes that you went away from the ADMA 2022 Show full of new knowledge and looking forward to revamping your farming practices.

Yours in farming,

Vimbai



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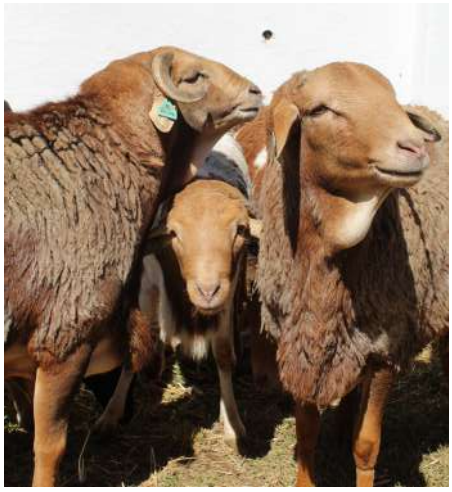
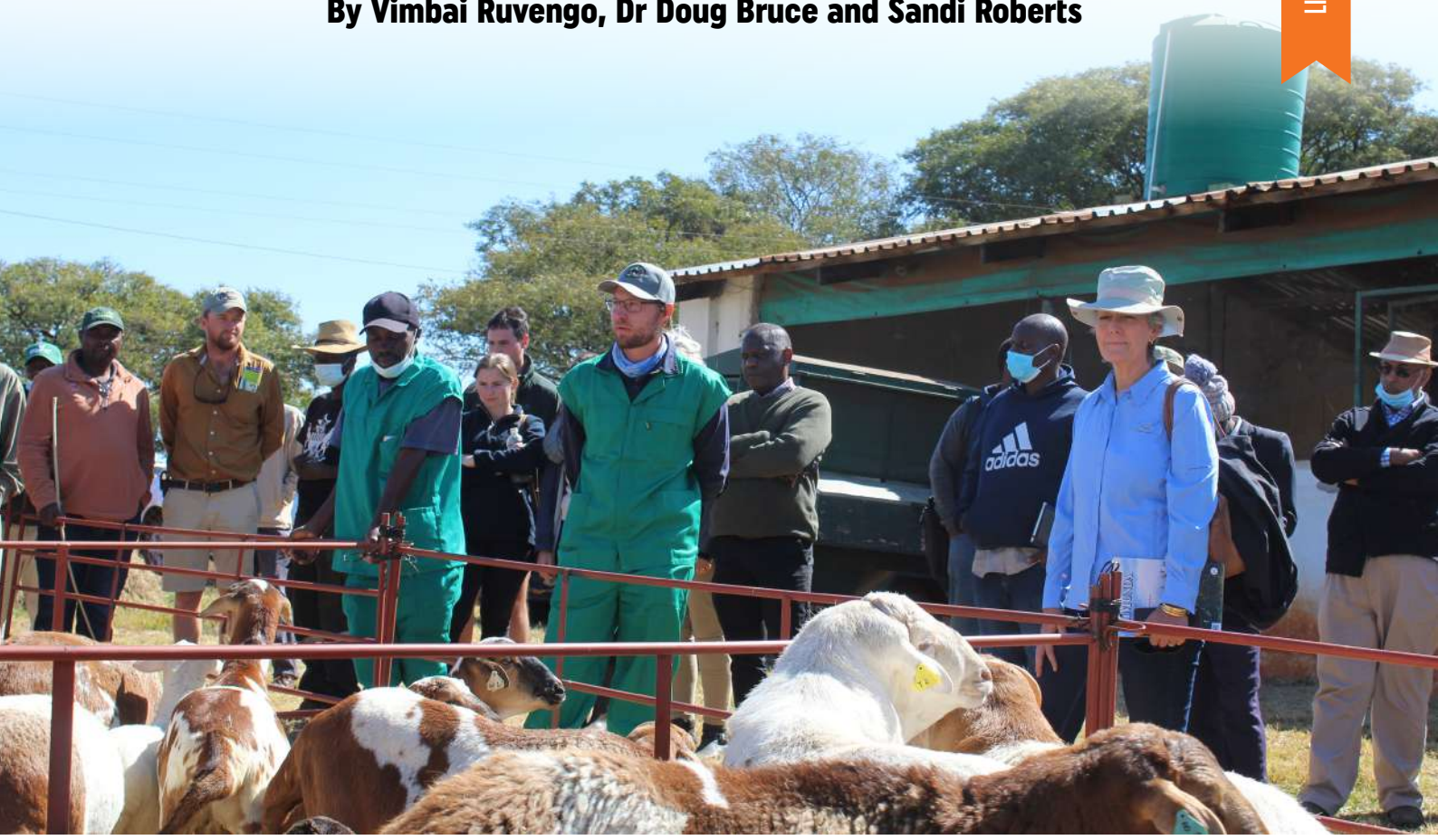


Nguni sheep at A.R.T Farm. Images provided by Dr Doug Bruce.

The Fat-Tailed Nguni Sheep

By Vimbai Ruvengo, Dr Doug Bruce and Sandi Roberts



The indigenous sheep of Zimbabwe, presently occur in relatively small flocks, scattered throughout the semi-arid parts of the nation. These sheep are hardy and agile and besides their sometimes shaggy short-haired coats, they are distinguished by their large, fat tails.

A Touch of History

The breeds' origin is not entirely known but has likely followed the Bantu tribe migrations over the Zambezi River many centuries ago. They are similar to the indigenous African sheep found in Ethiopia and the Sahel pastural regions, stretching across north Africa, south of the Sahara Desert. In the past, these indigenous sheep were referred to as Sabi sheep as they were commonly found in the Save river valley. Those found in the Zambezi valley system are similar but appear to have longer and larger tails and they have been referred to as Nguni sheep.

Characteristics

- Horns - present or absent in males. If present they usually have only one twist and the females are usually polled.
- Ears - short and carried horizontally or slightly drooping; vestigial small "mouse" ears can occur and is hereditary.
- Neck – has a high head carriage compared to exotic wool sheep with a well-developed brisket.
- Various colour variants are possible-white, tan, brown, black or red and are commonly speckled or have patches. The coat has short hair with very little wool.
- Fat tails-they have large fat tails and rumps similar to the Persian sheep of Biblical times and the Middle East area. The tails often extend below the hocks.

Because the breed often has a small frame and is poorly muscled, its use as a breed for commercial lamb and mutton production has been limited. Due to its hardiness and being adapted to our hotter drier environments it can be used for crossbreeding with exotic breeds such as the Dorper. These

are often referred to as Meatmasters. In neighbouring South Africa indigenous breeds such as the Damara were used to create the Meatmaster breed.

Advantages of the Nguni

- Fertile with excellent mothering abilities – ewes are protective of their young.
- Tolerant of external and internal parasites.
- Moderate sized frames with relatively low maintenance requirements.
- Do not need to be sheared.
- Do not require a high level of management.

The fat tail is an adaptation trait serving as an energy reserve in times of drought and adverse conditions. This gives the Nguni a great advantage as the bulk of the agricultural landscape in Southern Africa is arid or semi-arid. Being able to adapt to arid environments, the sheep can markedly contribute to the livelihood of farmers in arid areas.

The value of indigenous breeds in terms of adaptability and robustness can be used as a selling point for smallholder farmers. Good husbandry by these sheep farmers under a low-input system would allow them to market their products as organic or free range.

The Nguni Sheep Breeders Society

The awareness of the value of indigenous livestock breeds in Zimbabwe is gaining momentum in recent years with several institutions prioritising this matter with a mission to facilitate and promote the conservation of indigenous farm animal genetic resources. With this in mind, the Nguni Sheep Breeders Society is in the process of being established with a mission to promote the breed. To this end a small breeding herd has been established at Art Farm, Pomona with foundation animals sourced from the Dande and Mushumbi Pools areas.

ART Farm Advanced Breeding Centre

The Advanced Breeding Centre, established in May 2022 by Bargrove Veterinary Group serves as base for Nguni sheep research. The team at the Centre are working on recording the performance of the breed under ideal conditions. These measurements include weights for age, longevity, fecundity, lamb survival, age at first lambing, disease and parasite tolerance and resistance. Indigenous breeds are often seen as poor performers but little is known of their performance traits and it is this that is hoped to be quantified at the Breeding Centre at ART

These Nguni sheep are far from inferior, they are hardy and prolific under adverse conditions, producing admirably under the low maintenance conditions that are typically found in the marginal dryer areas of Zimbabwe.

For further information on the Nguni Sheep message Sandi Roberts on 0772142675.

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Whitney Paprika – Reigniting Passion for Growing Paprika in Zimbabwe

By Joseph Katsumba, Director, Sales & Marketing at Whitney Paprika

Zimbabwe has a vibrant small-scale farming (A1) community and a robust and emerging indigenous commercial (A2) sector. Both have a tremendous amount to offer the country and economy, which is why we have targeted each group in our efforts to regain our country's crown as a major global paprika producer. Our climate, infrastructure, skills, and experience of Zimbabwe farmers make it easy for us to take a big chunk of the worldwide paprika market, which is currently valued at around US$677.7 million and growing.

The Whitney Paprika Company is both a producer and marketer of paprika and chillies. It was established primarily to offer small-scale farmers (SSF) an alternative to tobacco, the country's main export cash crop. For many SSFs growing tobacco is no longer an option because of the sustained loss of firewood as a drying agent in many areas. This has left them with limited crop options, and as a result, they have gone with horticulture for the local market or traditional crops such as maize or beans. Unfortunately, these alternatives do not always pay well and, in the case of horticulture, can be disastrous due to oversupply and depressed market prices. This is not ideal for the farmer or the country because we must have a mix of crops skewed towards exports complement to tobacco to bring in much-needed forex and generate wealth. This aligns neatly with the government's National Development Strategy 1 (NDS) Horticulture Recovery and Growth Plan.

The Whitney Paprika Team on the ground

Over the years, we have grown organically and now boast an extensive network of small-scale growers countrywide, all growing for export. As we have grown, we have attracted commercial players joining the reignited paprika revolution. This we have welcomed as it allows us to have more significant volumes as we spearhead our journey back to the top. By comparison, Peru, a top 3 global producer, has around 25,000 ha of land under paprika, and we are way below that. Still, as our numbers rapidly increase, we aim to make ground in the coming years. This is why we warmly welcome all growers to our fold. Growers must be able to self-fund initially with the potential for a full contract open to discussion after a trusting relationship has been established on both sides.

Agronomic Practices

Paprika as a crop is not complicated and will grow well in most well-drained soils in the country. It requires rainfall of between 600 – 1250mm and can perform adequately under rainfed conditions, provided that there are no more than two weeks of continuous dry spell. It requires a temperature range of 24-30°C, and temperatures should not exceed 34°C during anthesis. The optimal PH range is between 5.5 to 6.5, and it must not follow another solanaceous plant in the preceding 3 years, such as tobacco or potatoes. Fertiliser requirements are dependent on soil test results. Still, generally basal fertiliser should be Compound L or CottonFert (700 – 1000kg/ha), which contains Boron which is an essential requirement for good fruit/pod formation and is readily available. The top dressing is Ammonium Nitrate (350 – 400kg/ha) and supplemented with Potassium Nitrate (300 – 400kg/ha) for maximum fruit colouring (ASTA). As with all export crops, special care must be taken when applying agrochemicals and due diligence involved in recognising and avoiding prohibited pesticides and herbicides. We will test for minimum residual levels (MRLs) rigorously, so it is imperative to be aware of what is permitted or otherwise.

Seedbed

By following the guidance and good agronomic practices, farmers can achieve yields ranging from 4-6t/ha for irrigated crops and 2-3t/ha for rainfed crops. We have a team of trained agronomists supporting farmers at every crop stage and ensuring that the risk of poor outcomes is minimised. As we tend to have growers in clusters, we have generally been able to collect the paprika directly from farmers. Still, the logistics are increasingly tricky as numbers and volumes increase. We have plans for a bigger warehouse this year that will make it easier for farmers to deliver at suitable and convenient times. Payments are processed and paid out immediately so that farmers can enjoy the fruits of their hard work.

Speaking of enjoying the fruits of one's labour, one challenging and perennially unresolved issue for most farmers is that of crop theft. This is a common problem insofar as most crops go, especially those that have a ready local market or can be used as a food source by the community. Estimates put farmer losses to theft at about 10-15% of output. This is significant if you aggregate it over the lifetime of a productive farm. Many farmers factor such losses in their Profit and Loss accounts and carry on because there is seemingly no solution to this age-old problem. With paprika, this problem is significantly reduced. Why? Because the local market is small and there is limited demand at open markets like Mbare or others. This means when neighbours are losing sleep, our paprika growers have one less thing to worry about: their paprika in the field is not on the hit list, and all their yield will go into their pockets.

Sun drying

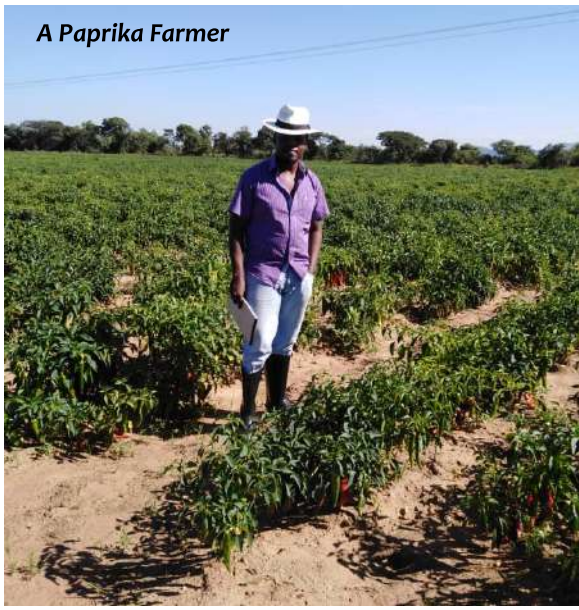
A number of articles have been written about the potential for paprika being a significant forex earner for Zimbabwe; we concur with this and have seen tremendous growth, and its potential over the years. We now call on farmers, both small and large, that can grow paprika to do so, knowing that they have a guaranteed market from us. As the global demand for raw paprika and its value-added derivatives increases, we want you and us to grow with it.

The season for paprika begins early August for irrigated land and early October for a rainfed crop. Get in touch and let us see how we can grow together.

For more information on spice farming refer to the ZiMunda Farming magazine issue …. For all inquiries on growing Paprika please call or WhatsApp +263 78 318 3886

Bailing

A Paprika Farmer



Basic Soil Principles and Seed Treatments in Potatoes

By Tegan Buchanan

The aim of any farmer is to produce a high-yielding, quality crop that matches the needs of the market they intend to sell it into. This is no different for potato growers, particularly in those potatoes have become a lucrative crop to grow in the current market in Zimbabwe. As such the benefit of applying biological seed coatings to potatoes has increased substantially, where the return on investment outweighs the cost incurred.

Basic Soil Properties

As is the case with any crop, to see the best results from any additional agricultural input, one needs to make sure that the basic soil properties are in line with the crops nutritional requirements. Potatoes are grown on a range of soils varying from sands to clay loams all with different water holding capacities. An ideal potato soil is well structured, with good drainage to allow proper root aeration, tuber development with minimal root disease infestation. Potatoes prefer soils with a pH of 5.5 to 6 and low salinity. However, in practice potatoes are grown in soils with pH's in the range of 5 to 9 and this has a distinct impact on the availability of certain nutrients. At lower pH values potatoes can suffer from aluminum and other heavy metal ion toxicity, as well as restricted P or Mo availability. In comparison, at pH values above 8, nutrient availability; in particular that of phosphorous and the various micronutrients, can be reduced, even though high total amounts of these elements may be present in the soil. Thus, extreme soil pH's should be adjusted where it is practical to do so.

To ameliorate a low soil pH, and if needed to balance calcium: magnesium rations, a farmer can use liming products such as MicroCal (Calcitic lime) and MicroDol (dolomitic lime). These liming products are favored in comparison to powdered agricultural lime in that they are more effective and efficient. These products are micronised and granulated, which means that they are ground to an ultrafine powder and then bound with an organic lignosulfonate which aids in limiting calcium lock-up. Once the lime has been granulated, due to the nature of the product and the fine powdered material, it will dissolve at a faster rate and absorb into the soil more efficiently and effectively over a sustained period. Accurate applications are also a benefit of the granulated micronised products in relation to powdered lime, allowing you to treat your soils with the level of precision they require. Because of the granule's cohesiveness, ease of packaging and transportation, and non-dustiness; granulated lime is seen as a superior alternative to powdered lime because it overcomes challenges relating to bulkiness, transportation

Image A: *Treated with Rootsure – increased uniformity with an average of 4 to 5 helms*

Image B: *Untreated – not as uniform – average of 3 to 4 helms*

costs, dust, and difficulty in its application.

Once your basic soil properties have been corrected, such as pH, Ca:Mg ratios etc., one can then look at seed dressings for the potato crop to enhance the crops capacity.

Rootsure SC – Biological seed dressing

Potatoes produce a fibrous shallow root system that is no longer than 60cm making it difficult to exploit nutrients and soil moisture at a lower depth within the soil profile. As a result, the effect of adding a seed dressing such as Rootsure SC is immense – as the product works to increase the root mass of the crop so as to access a larger volume of nutrients.
Rootsure SC is a seed coating that consists of two products Biocult SC concentrate, and Qwemikelp. Biocult SC contains mycorrhizae, which acts as a biostimulant, and Trichoderma which acts as a biofungicide. Qwemikelp contains Kelp, N, P, K, and micronutrients.

1. ABOUT BIOCULT SC
The mycorrhizae in Biocult SC form a natural symbiotic relationship with the plant roots where the plant provides the mycorrhizae with food in the form of photosynthesized sugars. In return, the mycorrhizae supply the plant with nutrients, minerals, and water. Mycorrhizae are applied as spores and the plant roots trigger their germination allowing fungal threads called hyphae to grow. The tip of the hyphae thread plugs into the root and forms an extension to the root. The hyphae threads form a vast network called mycelium. The mycelium become an extension to the roots and significantly increase the volume of the soil the plant can access. These mycorrhizae mycelia connect to the increased root volume, allowing the plant to absorb nutrients and water from a greater volume of soil thus the plant is more tolerant to water stressed conditions. This is because mycorrhizae have a higher absorptive area than roots. The Trichoderma in Biocult SC acts as a biofungicide and colonises the roots, protecting the plant by attacking or inhibiting various soil borne pathogenic fungi.

2. ABOUT QWEMIKELP
The second component of Rootsure, Qwemikelp, contains kelp, which is an excellent source of Cytokinins and Auxins. The Auxins stimulate root growth and the Cytokinins stimulate shoot growth. This results in a greater root mass. Qwemikelp also provides a full range of Macro and Micronutrients.
The combination of products provides various benefits. The benefits include improved fertiliser efficiency and uptake, as well as access to previously inaccessible nutrients such as immobilised Phosphates, Organic Nitrogen, Sulfur, Zinc, Calcium, Boron, and Copper. This increases soil carbon levels in topsoil formation and improves the water holding capacity as well as the soil infiltration. As a result, the potato plant is healthier and more resistant to insects and diseases allowing for improved yield, uniformity, and crop quality.

Infield Technologies

Manage your harvest and boost the yield with GPS tracking

By John Nhauranwa, Sales & Marketing Manager

GPS tracking devices allow the modern famer to track his farming equipment and vehicles at all times while also protecting those pricey assets from theft and abuse. Farming equipment is a significant investment for companies in the agriculture industry. With products like ***Cartrack GPS technology*** you can minimise unnecessary wear and tear on the expensive equipment to prolong its operational life.

Fleet tracking systems will allow you to locate your farming equipment anywhere and at any time of day. Tracking systems can also help to organise your land and crops, ensuring that each area is getting the specific attention it requires. ***GPS fleet management systems*** can be programmed to arrange your land based on a system of geofences and landmarks. ***Geofences*** are geographical boundaries established around certain plots of land.

When geofences or landmarks are inappropriately crossed, the farmer will be immediately notified. Geofences establish the areas that need fertilising, harvesting, crop dusting, and so on, and tracking equipment entry and exist into those areas can ensure that each plot of land is receiving the appropriate cultivation at the right time.

In turn, this will prevent unnecessary wear and tear on your machinery, the needless delivery of expensive cultivation materials, and damage to plots of land resulting from too much or too little cultivation. Fertilisers, pesticides, and even water are expensive; delivering these materials where they're not needed can have a significant impact on your bottom line.

Thanks to technologies from industry experts like Cartrack , ***"Farming is a lot sexier than it used to be and a lot more efficient,"*** says Charles Davies an acclaimed agriculture scholar . GPS-based applications have led to precision farming, improving farm planning, field mapping, soil sampling, tractor guidance, crop scouting, variable rate applications, yield mapping, and more. We are now in the smart agriculture era.

Winter-Time Ascites

By General Beven Mundida,
Livestock Consultant.

In the recent past, ascites has become a major cause of winter-time mortality in broiler chickens. Statistics have shown that a large percentage of the disease occurrence falls under fast-growing birds. Because the disease is not caused by a virus or bacterial organism, there is no medical treatment to it. Its prevention is only through good husbandry of the flock. This article outlines the principal causes, development and prevention of ascites in broiler chickens.

What are the causes of Ascites?

Ascites also known as ***water belly or avian edema.*** Scientifically it is known as ***pulmonary hypertension syndrome*** (PHS). The syndrome causes an accumulation of fluid in the abdominal cavity, as a consequence of heart failure. The disease is a production syndrome related to rapid growth, high oxygen demand or poor brooding conditions. In fact, some birds that might be recognised in the chicken house are flippers may actually be mortalities that are a result of pulmonary hypertension (affected broilers just "flip over" and die on their back). It is this high pressure that will cause plasma leakage from blood vessels to accumulate in the abdominal cavity.

Despite the disease being a result of a number of predisposing management factors, the ultimate cause leading to ascites is ***oxygen deficiency.*** In winter some practices lead to lack of oxygen for example;

- Covering the mash windows with curtains to maintain the coop temperatures. The lack of air movement results in coop oxygen levels being lowered.
- Burning wood, coal or gas as a heat source. The burning materials use up oxygen and produce gases such as carbon dioxide and carbon monoxide. Depriving the flock of oxygen.

There has been a tremendous improvement in the genetic potential of birds to grow at a very rapid pace. In order to meet this genetic potential, the quality of feed given to the broiler bird has also been greatly improved and enriched with highly digestible amino acid and metabolisable energy. This type of feed results in higher production of Ammonia from the droppings. If the coop has poor ventilation systems, gases such as carbon dioxide, carbon monoxide and ammonia start accumulating inside the poultry house and oxygen concentration goes down. During brooding stage, the impact of this oxygen deficiency results air sac damage. At about four weeks of age, the average growth rate of broilers goes up at rapid pace and the demand for oxygen exponentially increases. A combination of damaged air sacs, poor ventilation, ammonia built up and the high growth rate consequently results in the birds not getting the required amount of oxygen hence developing ascites syndrome.

Temperature fluctuations, stresses from diseases such as chronic respiratory disease (CRD) and residual damages of respiratory system from viral outbreaks can lead to the birds not breathing in enough oxygen, consequently leading to ascites.

NB: The point above confirms that although broiler birds are more vulnerable to developing ascites in winter, the disease occurrence can also be experienced on summer, especially in farms where there is improper ventilation and management.

What Are the Symptoms of Ascites?

- High rate of panting is often observed in birds with ascites even the absence of apparent heat stress.
- Gurgling sound often accompany the panting as they often just sit.
- Birds with ascites tire out easy and often die on their bellies.
- Most deaths often occur at about four weeks of age.

At post-mortem;

- If the belly is opened up, a cup or more of fluid or jellied material will pour out.
- Lungs might appear pale or greyish and be extremely congested and oedematous (with fluid). Sometimes birds die from the effects of too much blood and fluid in their lungs before there is any significant amount of fluid in the body cavity
- Liver enlargement.

How Can Ascites be Minimised?

• **Temperature –** Prevent cold temperatures and avoid temperature fluctuations which are greater than 2°C at any given time. Use safe heating sources during brooding and always monitor the behaviour of the birds, checking if they are cold or hot. When using charcoal heaters, light up the fire outside and never allow smoke inside the poultry house.

• **Ventilation –** Good air quality has to be maintained and this is achieved by allowing proper air circulation. Curtain management is important. Always leave a 10cm gap at the top of the curtains at first and roll the curtains down until 21 days. At 21 days take away the curtains or completely roll them down.

• **Lighting –** In darkness, heat production goes down and demand for oxygen decreases. This avoids the right side of the heart from overworking.

• **Litter –** Good litter management avoids accumulation of ammonia gas. Ammonia causes oxygen deficiency. Always use litter that absorbs moisture well like wood shavings. Remove any wet patches especially areas under drinkers.

• **Feeding –** Lower density feeds reduce growth rate and may reduce ascites. Mash/crumb feeds reduce growth rate and may also reduce ascites.

• **Reduce stress in the flock -** While farmers may not know all the stressors that can affect their chickens, there are those that are obvious.

- Keep stocking densities optimum.
- Walk the broiler houses often and carefully.
- Provide optimum feeding and drinking space.

For information on winter care in poultry, download a free copy of ZiMunda Farming Issue 3 and 31 on www.zimunda.co.zw. For inquires contact call/ WhatsApp +263 776 420 161 Email: gbmundida@gmail.com

Mitsubishi Triton Single Cab - Built for the extra mile

Are you frantically looking for a robust vehicle for the hardest jobs? That vehicle is the Mitsubishi Triton Single Cab.

The Single Cab-Cab Chassis 4x4 models have Easy-Select 4WD, which allows you to switch between 2WD and 4WD on the move, at speeds under 100km/h, with the touch of a dial. The hallmark of a good vehicle is its ability to make the motorist stay safely focused on the road ahead. Easy reach ergonomic controls are designed well to keep control close at hand.

Safety, reliability, robustness: there's are all desirable components of a vehicle. But for the modern driver, it can never be complete without one aspect – comfort. A tilt and telescopic steering is standard across the Triton range, allowing even the fussiest motorist to get into a position of comfort behind the wheel. It's 4L DOHC MIVEC 16 valve common rail intercooled diesel engine, an aluminum cylinder block, and strong yet lightweight materials.

Its peak power is 133kW at 3500rpm, while torque is an impressive 430Nm at 2500rpm across both manual and automatic transmission models. The lightweight engine achieves low fuel consumption while delivering outstanding power and performance. It is matted to a 5-speed manual transmission, which provides the right balance between driving performance and fuel economy.

The Triton has components that contribute to solid handling and stable highway performance. It is built for maximum stability and traction, with a rugged frame and aerodynamically contoured body. It's reliable 4WD traction combines with an advanced suspension to keep you in touch with the surface conditions so you stay in firm control. Additionally, it also has a 3-tonne-braked towing capacity! So, whether you're into mining, farming or towing the family fishing boat, equipment or trailer, the Triton has you covered!

Mitsubishi Motors Intuitive Technology (MiTEC) delivers unsurpassed safety and next generation features to the modern-day driver. Significant safety features, coupled with Mitsubishi's Reinforced Impact Safety Evolution (RISE) body, have earned Triton the maximum ANCAP safety rating of five stars.

Why wait? Available ex-stock from Zimoco. Visit their website www.zimoco.co.zw.

Nestlé Celebrates World Milk Day at Malwatte Farm, Marondera

By ZiMunda Farming

In 2001, World Milk Day – June 1 was established by the Food and Agriculture Organisation (FAO) of the United Nations (UN) to recognise the importance of milk as a global food, and to celebrate the dairy sector. The dairy industry worldwide supports the livelihoods of millions of people.

Nestlé Zimbabwe (Private) Limited, one of the operating companies under Nestlé East and Southern Africa Region (ESAR) Limited celebrated this day by showcasing their Public Private Partnership (PPP) with the AgroProsperity Trust at Malwatte Farm, Marondera. This PPP falls under the ***Nestlé Dairy Empowerement Scheme (NDES)*** launched in 2011. The event was graced with government officials, colleagues from Nestlé East and Southern Africa Region, Nestlé Zimbabwe Board, Management and Staff, the Zimbabwe Association of Dairy Farmers (ZADF) Executive Management and Board Members, Agroprosperity Trust Trustees, farmers and many more.

"The NDES program is one way we are putting our purpose ***(unlock the power of food, to enhance quality of life for everyone, today and for generations to come)*** *into action by assisting in Realising Empowered and Enabled Livelihoods by supporting both commercial and small-scale farmers"* stated Mr. Luke Gomes Nestlé Zimbabwe Managing Director during his speech.

Prior to the onset of the NDES, dairy farmers faced several challenges which included lack of technical support, low dairy herd, poor feeding, water challenges and lack of support on Milk collection Centre's. In the NDES, small scale farmer development has been accomplished using a ***Hub and Spoke Strategy*** in which we anchor small scale farmers/out growers around an anchor farmer where we create a milk collecting facility. In 2015, this strategy was put to test in Chitomborwizi and thereafter building on its success, Nestlé Zimbabwe moved on to build two other farmer networks using the Hub and Spoke model in Watershed in Hwedza (2019) and Agroprosperity in (2020).

During the media tour at Malwatte Farm, the dairy farmer, owner and Agroprosperity founding member, Mr Muzariri took the officials and attendees through critical points and stages of the system, pointing out how NDES, Nestlé Zimbabwe has/is supporting its dairy farmers in this hub;

- **Knowledge transfer –** farmers are taught the good labour practices and animal welfare. The knowledge is in dairy practices as well as the value chain.
- Establishment of **milk collection centres** by providing cooling tanks. The Trust's scope is anchored on mobilisation of high-quality milk from out growers who bring in the milk in milk containers, which are then weighed and emptied into the cooling tank awaiting collection to Nestlé Harare.
- **Solar powered boreholes** to address water challenges for

irrigation as well as solar powered cooling system to reduce reliance on electricity and diesel for power generation.

• **Pasture and Silage Support Programme** which reduces the need for commercial feed. In conventional dairy farming feed constitutes about 70% on the cost of production per litre of milk. Nestlé encourages all its dairy farmers within the NDES to grow multi-perennial pasture crops such as star grass, lucerne, rye and velvet bean. The pastures can either be grazed, cut and fed to the animals or when dry can be ground into silage using the miller as shown below. Mr Muzariri expressed his gratitude to Nestlé noting on how much the miller received in the programme is of importance to Agroprosperity Trust. The trustees have established out

growers for pastures known as Pasture Banks. This is done to increase the availability of feed for silage making. Legumes such as the velvet bean present an added advantage of fixing nitrogen into the soil, hence reducing fertiliser application on the particular field.

In closing, Mr Luke Gomes commented that *"Our (Nestlé's journey remains rooted on being a good corporate citizen and contributing to the bigger picture of Zimbabwe's economic agenda towards vision 2030 through developing our strategies and making the necessary adjustments to deliver balanced growth and sustainable value for all stakeholders building on the guiding principles of our purpose".*

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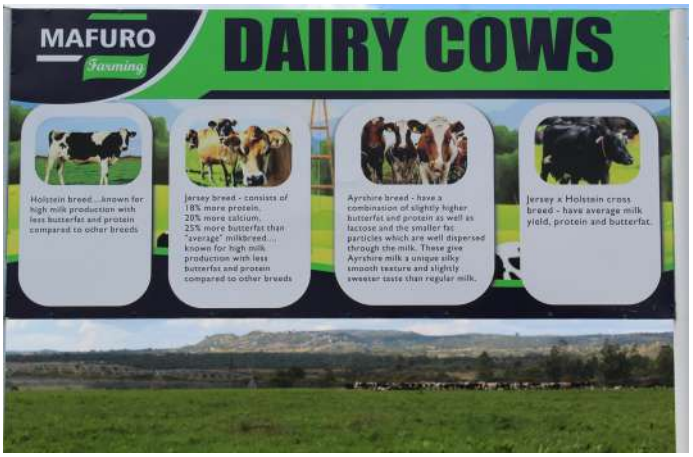
Commercial Dairy Farming Field Day at Mafuro Farming

By Vimbai Ruvengo

In line with technological advancements, the Zimbabwe Association of Dairy Farmers (ZADF) has a Strategic Imperative which emphasises the need for dairy farmers to adopt as well as implement new and efficient production systems. Such systems contribute towards improved quality of milk which attracts better prices and profitability. The Mafuro Farming Project is one such learning hub for innovative dairy farming technology in Zimbabwe.

Mafuro Farming was founded in December 2017 by Mr Sean Webster and started milking operations in August 2018. The farm operates a pasture-based system which entails a blend of pastures, perennial legumes and cereals. Grown pastures provide the major source of the feed for the animals (see ZiMunda Farming Issue 20).

The dairy enterprise currently operates on two farms located in Marondera (Grasslands and Safari Farm), with plans of opening a third farm in Kwekwe (East Range) currently underway. This expansion comes in line with the need of increasing dairy output in order to meet the annual national requirement of 130 million litres. Mafuro Farming is currently contributing 5.4% to the national percentage and is projected to go up to 13.1% once the East Range farm is operational – quite a remarkable contribution to the national basket!
A total of 554 cows out of a herd of 1,099 animals are milked daily in a state-of-the-art milking parlour at Mafuro Farming with an average output of 19 litres per cow per day. The herd at the Safari Farm is comprised of Holstein, Jersey, Ayrshire and Holstein/Jersey crosses.



The Field Day

Sean Webster and the ZADF team organised a pasture field day with the motive of imparting sustainable and cost-effective dairy farming techniques to large scale farmers as well as small to medium scale and aspiring dairy farmers. Through the field day, Sean Webster took the opportunity to showcase the success of the enterprise and the knowledge that he and his amazing team has built at Mafuro Farming. On the 20th of May 2022, more than 100 farmers gathered at Safari Farm, Marondera together with industry key players for feed, cattle health, irrigation and seed showcasing their products. The event was graced by the government of Zimbabwe officials from the Ministry of Lands, Agriculture, Water, Fisheries and Rural Resettlement, AFC commercial bank and other delegates. The event started with a farm tour and insightful field lessons by staff from Mafuro Farming before all attendees gathered in the tent for speeches by guest speakers.

Honourable Vangelis Peter Haritatos, the Deputy Minister of Lands, Agriculture, Water, Climate and Rural Resettlement applauded the field day initiative stating that ***"the participation of all classes of dairy farmers from small scale to large scale supports the attainment of Vision 2030 through facilitating growth of the dairy sector by strengthening the Dairy Revitalisation Programme and this is highly commendable".*** The deputy minister went on to praise and note the importance of joint ventures such as the one between Mafuro Farming, Grasslands Research Institute (GRI), AFC Holdings and Prodairy (Pvt) Ltd which has been demonstrated since 2018.

"Joint ventures are becoming one of the significant tools that can intensify our national agricultural objectives but they require a collected approach, willingness and integrity for the establishment of mutually beneficial partnerships. They are strategic in terms of advancing agricultural knowledge, infrastructure amongst other benefits".

Research and Development

The successfulness of the joint venture was brought to life at the infancy of Mafuro Farming in 2018, where the enterprise's first dairy development was a partnership with the government of Zimbabwe at Grasslands Research Institute (GRI). Mafuro Farming worked in collaboration with GRI in the proof of concept and went on to this day to research on dairy breeds, pastures and forages adaptable to Zimbabwe's five agro-ecological region. Within 6 months of the project start date at GRI, the company was producing and selling milk on a commercial scale.

Financial Assistance

In 2019, with financial assistance from AFC Holdings, the farming enterprise moved to phase two of their project at a bigger farm located at Safari, Marondera where the field visit was held. In his speech, Sean Webster acknowledged that in spite of his expertise and passion, the dream could not have come true without the needed financial and technical support from AFC Holdings who supported the establishment. The partnership between Mafuro Farming and AFC Holdings has been nurtured and grown into producing a massive enterprise that is now a reference point for precision farming in the dairy industry in Zimbabwe. AFC Holdings was established through the unbundling of Agribank, to drive the transformation of agriculture development in Zimbabwe. It is a one-stop-shop; Development Finance Group for agricultural finance, commercial banking, insurance, and leasing designed to support agriculture development through the entire value chain.

"At AFC Holdings, we believe in growing together, and the relationship between Mafuro Farming and AFC Holdings attests to that" said AFC Holdings CEO, Mr Frank Macheka. He went on to encourage farmers to seek financial assistance from the bank, "To other dairy farmers, AFC Holdings is not just there for Mafuro Farming and a few others we have in our books. We are here to serve you all. AFC Holdings envisages establishing similar relationships with other dairy farmers, by offering a total package of financial services".

DAIRY

End-Product Partnerships

Mafuro Farming's partnership with GRI, AFC Holdings amongst other partnerships such as with National Foods Limited has helped establish a replicable working model and an outstanding milk output. Through strategic planning for the end product – raw milk, Sean Webster partnered with Prodairy (Pvt) Ltd to form a strong production to processing partnership. The company's holistic value chain approach, of farm-to-home, has allowed Prodairy (Pvt) Ltd to grow its milk supply and brands through strategic partnerships with farmers. With such sure partnerships at hand, Mafuro Farming can continue to grow and feed the nation.

"There are many ways to dairy farming. I am just showcasing to you one way I thought is profitable in Zimbabwe. Pasture-based farming is profitable as it is low cost because of the good soil and the weather in Zimbabwe"
Sean Webster.

AGRONOMY

Swift Mutakuri

Safe, Secure and Reliable Tobacco Transport

Transporting tobacco for a ninth season in a row. Swift Transport will be providing producers with more transport capacity this tobacco season, a further 16 Tautliner trailers were acquired and have been imported from South Africa, these trailers have a massive loading capacity of more than 400 bales each. Which will have a positive impact on the collection and delivery turnaround time for all loads. Tautliner trailers are perfectly designed to ensure quick loading and off-loading saving valuable time.

The increase in demand for Swift to **transport bales** was the driving force in the decision to increase trailer numbers. This will guarantee that existing customer loading capacity will not be affected, and all current customer transport commitments are secured. This rise in demand has had a lot to do with the excellent safety and reliability record that the transport company has built over the last 75 years.

Swift also becomes the first transport operator in Zimbabwe to qualify and receive the esteemed RTMS, ***Road Transport Management System,*** certification. RTMS is a self-regulated accreditation scheme for heavy vehicle operators initiated and started in South Africa in 2007. It is focused on driver wellness, operator productivity, freight loading, safety and compliance and training. The RTMS standard ensures good transport operator practice, taking into consideration the safety of the driver, the load, the vehicle and all other road users.

Rob Kuipers, CEO of Unifreight; *"As we enter a ninth tobacco season, we do so with the knowledge that we are prepared, not only from the point of view of increased capacity with our new equipment recently acquired but with the working knowledge and logistics developed from the previous eight seasons which we have had the privilege of being a part of, is constantly improving. Each year we take on board the lessons learned and move to perfect our transport offering to ensure it is the best, safest and most reliable transport service that any tobacco producer can use."*

For further information please contact,
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