

ProAgri

technology for the farmer

A F R I C A

Free



**African women lead the
Agriculture charge**

p 17

**Namibian sheep farmers
unite for industry's future**

**Your guide to producing
the ideal weaner calf**

INNOVATIVE FARMING TECHNIQUES TRANSFORMING
AFRICAN AGRICULTURE

LIMITED OFFER SUPER-HEAVY BALE NETWRAP



**All Widths
R3400 ex VAT
Per Roll**



BEST QUALITY

Avialable Widths : 123cm & 125cm

UV Protection : Yes

Thickness : 13gr/m

Length : 3600m

Strength : 350kg/m / 3500N

Elasticity : 21.5%



Call Us Today



071 331 1990



071 331 1997

REBELO
AGRICULTURAL GROUP

Dear ProAgri Africa readers,

Over the past few years, I have had the privilege of discovering that agriculture in Africa is about so much more than farming.

It is about resilience. It is about innovation. It is about communities who refuse to give up, entrepreneurs who see opportunity where others see obstacles, and farmers who continue to invest in the future despite the uncertainties they face every day.

Working with ProAgri Africa has allowed me to meet remarkable people from across our continent. However, every country and farm has its own unique challenges and opportunities.

One thing that stands out about our people is the determination of African farmers to feed their people, grow their businesses and leave something better for the next generation.

As I write my final editor's letter for ProAgri Africa, I do so with immense gratitude.

Through every interview, every farm visit and every story shared, I have been reminded that agriculture is ultimately about the people. Behind every successful harvest, thriving farm, and happy and healthy livestock are individuals whose passion and perseverance deserve to be celebrated. Thank you to every farmer, agribusiness, client, reader and colleague who welcomed me into your world. Thank you for allowing me to share your story in the pages of our ProAgri magazines. It has been an honour to tell your stories and to witness the incredible work taking place across this continent.

Africa's agricultural potential is extraordinary, not only because of its fertile land or abundant resources, but because of its people. While my journey with ProAgri comes to an end, my passion for agriculture certainly does not. I will continue my own story on our own farm now.

Thank you for allowing me to be a small part of your journey. I hope our paths cross again somewhere on this incredible continent.

Until then, keep growing, keep innovating and keep believing in the future of African agriculture.

Warm regards,

ProAgri greetings!
Bianca Pretorius
bianca@proagri.co.za



On the cover

Innovation drives Africa's farming future. Discover groundbreaking techniques boosting yields and climate resilience. Read more on page 7.



ProAgri
technology for the farmer
AFRICA

No. 10 Tito Road
Rhodespark, Lusaka
+26 (0)97-769-9786
www.proagri.co.za

Copyright © 2026. All rights reserved. No material, text or photographs may be reproduced, copied or in any other way transmitted without the written consent of the publisher. Opinions expressed are not necessarily those of the publisher or of the editor. We recognise all trademarks and logos as the sole property of their respective owners. ProAgri shall not be liable for any errors or for any actions in reliance thereon.

ProAgri

Editor

Bianca Pretorius > 082-326-2572
bianca@proagri.co.za

Reporters

Natasha Pretorius > 083-468-2653
natasha@proagri.co.za

Benine Ackermann > 073-105-6938
benine@proagri.co.za

Loren Howard > 071 866 3590
loren@proagri.co.za

Language Editor

Martie Bester > martie@proagri.co.za

Senior Production Manager

Zainab Pandor > +26 (0)97-769-9786
zainab@proagri.co.za

Marketing

Tiny Smith > 082-698-3353
tiny@proagri.co.za

Kevin Greeff > 078-374-8597
kevin@proagri.co.za

Sales Manager

Quintus Grobler > 074-424-0055
quintus@proagri.co.za

Head of Design

Anja Oosthuizen > 079-959-6724
anja@proagri.co.za

Design

Stella van Eeden, Heinrich Jansen & Sean Spijkers

Enquiries

Engela Botha > 084-088-0123
engela@proagri.co.za

Accounts

Ronel Schluter > accounts@proagri.co.za

Distribution and subscription

Nita Volmer van Zyl > 079-515-8708
nita@proagri.co.za

Business Manager

George Grobler

Content



3. 10 innovative farming techniques innovating African agriculture
6. The remarkable women shaping the future of LiuGong
8. Early chick mortality part 3: Management of disease outbreaks
9. Healthy soil starts with healthy microbes
11. Indaba secures long-term future and sustainability of Namibia's sheep industry
12. The advantages of the use of drone technology on farms
15. Farming with flowers: Why Kenya's flower industry continues to bloom
17. Sophy Litshani Musabeni: When women work together in agriculture
20. How to produce the ideal weaner calf



**LESS SOIL ON THE TYRE.
HEALTHIER SOIL IN THE FIELD.**

**50% LESS APPLICATIONS
PER SEASON MEANS
50% LESS TIME IN
THE FIELD.**



Stop burning through your margins on diesel and labour. With Atlas, you apply 50% less often, sparing your equipment and your schedule, while actively stimulating your soil microbes to create a thriving ecosystem. We don't just grow crops, we...

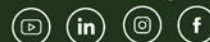
PUT LIFE BACK INTO YOUR SOIL

BOOK A VISIT WITH AN ATLAS AGRONOMIST.

T +27 81 725 8088

E info@atlasorganic.co.za

W www.atlasorganic.co.za



10 INNOVATIVE FARMING TECHNIQUES TRANSFORMING AFRICAN AGRICULTURE

compiled by Martie Bester

Africa's agricultural landscape is evolving. As farmers across the continent face increasing challenges, from unpredictable weather patterns and land degradation to limited access to technology, the need for innovation has never been greater.

Traditional methods alone are no longer enough to feed a growing population or to ensure sustainable livelihoods. Fortunately, a wave of transformative farming techniques is taking root across Africa, helping farmers increase productivity, conserve resources and adapt to climate change.

These modern approaches are not just for large-scale agribusinesses; they are empowering smallholder farmers with practical, affordable solutions that make a real difference. From precision agriculture and improved irrigation systems to mobile-based advisory platforms and biofertilisers, innovation is bridging the gap between potential and performance.

In this article, we explore 10 groundbreaking farming techniques that are reshaping African agriculture and show how they are unlocking new possibilities for food security, economic development and environmental sustainability.

1 PRECISION AGRICULTURE

Precision agriculture is a modern farming technique that uses data and technology to optimise crop production. By leveraging tools such as GPS, sensors, satellite imagery and drones, farmers can monitor soil health, weather patterns, crop performance and pest activity with remarkable accuracy.

This data-driven approach allows for targeted interventions, such as applying the right amount of fertiliser or water exactly where and when it is needed, minimising waste and maximising yields.

In Africa, where resources like water and arable land are often limited, precision agriculture is proving to be a game-changer. As digital adoption grows across the continent, precision agriculture holds the promise of revolutionising farming practices and boosting food security in sustainable ways.

2 CONSERVATION AGRICULTURE

Conservation agriculture is a sustainable farming method that focuses on preserving soil health, enhancing biodiversity and improving water retention. It is built on three key principles: minimal soil disturbance

(no-till or reduced tillage), permanent soil cover using crop residues or cover crops and crop rotation or diversification.

These practices help restore soil fertility, reduce erosion and increase resilience to drought and climate shocks.

In many parts of Africa, overcultivation and poor land management have led to soil degradation and reduced yields. Conservation agriculture offers a practical and affordable solution for reversing this trend.



Source: www.cgiar.org

By reducing the need for constant ploughing and maintaining organic matter in the soil, farmers can improve productivity over time while lowering input costs.

Adoption of this technique is growing across Kenya, Zambia and Ethiopia, where farmers report better harvests and greater resilience to climate change. Conservation agriculture is essential to building long-term food security and environmental sustainability in African farming.



Agricultural Society of Kenya Chairperson Margaret Anami inspecting vegetables cultivated on a vertical farm. (Source: Kipsang Joseph, FarmKenya)

3 VERTICAL FARMING

Vertical farming is a revolutionary technique that involves growing crops in vertically stacked layers, often in controlled indoor environments. It maximises space efficiency and allows year-round production using technologies such as hydroponics, LED lighting and climate control systems. This method significantly reduces the need for land, water and chemical inputs compared to traditional farming.

In Africa's rapidly urbanising regions, where arable land is limited and food demand is rising, vertical farming presents an innovative solution. It enables communities to grow fresh vegetables closer to urban centres, reducing transportation costs as well as post-harvest losses.

Small-scale vertical farms are already being piloted in countries such as Kenya, Nigeria and South Africa, offering opportunities for youth entrepreneurship as well as local food supply chains.

Though initial setup costs can be high, the long-term benefits, such as reduced water usage, high yields and minimal pesticide use, make vertical farming a promising approach. It is a sustainable path forward for agriculture in Africa's cities.



Source: The New Dawn

4 DRIP IRRIGATION SYSTEMS

Drip irrigation is a water-efficient farming technique that delivers water directly to the root zone of plants through a network of pipes, tubes and emitters.

Unlike traditional irrigation methods that often lead to water wastage through runoff and evaporation, drip systems ensure that every drop counts. This makes it ideal for regions in Africa where water scarcity is a major concern.

By providing consistent moisture directly where it is needed, drip irrigation enhances plant growth, improves yields and reduces weed growth and disease. It also allows farmers to apply fertilisers through the system, improving efficiency and saving time.

In countries like Kenya, Ethiopia and Morocco, smallholder farmers and agribusinesses are adopting drip irrigation with the support of nongovernmental organisations (NGOs), governments and private companies.

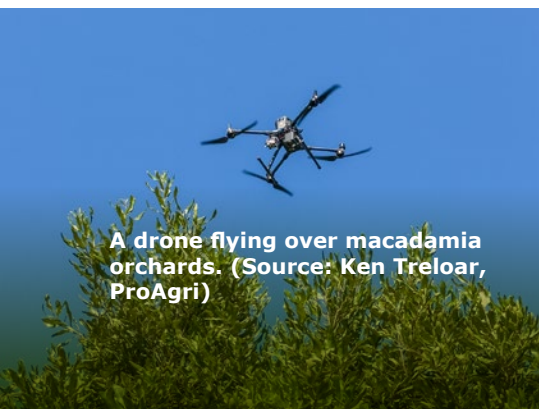
With rising concerns over climate change and water security, this technique is proving essential in building climate-resilient farming systems and ensuring sustainable crop production across the continent.

In Africa's rapidly urbanising regions, where arable land is limited and food demand is rising, vertical farming presents an innovative solution. It enables communities to grow fresh vegetables closer to urban centres, reducing transportation costs and post-harvest losses.

Though initial setup costs can be high, the long-term benefits, such as reduced water usage, high yields and minimal pesticide use, make vertical farming a promising approach.

5 USE OF DRONES IN FARMING

Drones are transforming agriculture by giving farmers an aerial view of their land, allowing for faster, more accurate monitoring of crops and livestock. Equipped with cameras and sensors, drones can capture detailed images that reveal plant health, pest infestations, water stress and nutrient deficiencies often before they are visible to the naked eye.



A drone flying over macadamia orchards. (Source: Ken Treloar, ProAgri)

This real-time data helps farmers make informed decisions, apply fertilisers and pesticides more precisely and reduce waste. On large farms, drones also assist in mapping, crop spraying and monitoring irrigation systems.

In Africa, the adoption of agricultural drones is gaining momentum, especially in countries such as Rwanda, South Africa and Ghana. Startups and NGOs are increasingly offering drone services to smallholder farmers, making the technology more accessible.

By saving time, improving efficiency and increasing yields, drones are playing a vital role in the modernisation of African agriculture. They are not just high-tech tools; they are becoming essential partners in smarter, data-driven farming.

6 HYDROPONICS AND AQUAPONICS

Hydroponics and aquaponics are soil-less farming techniques that allow crops to grow in nutrient-rich water systems, making them ideal for urban and arid regions with limited arable land.

Hydroponics involves cultivating plants directly in water infused with essential nutrients, while aquaponics combines hydroponics with fish farming, using fish waste to naturally fertilise the plants.

These systems offer numerous advantages: faster plant growth, higher yields in smaller spaces and reduced water usage – up to 90% less than traditional farming. Because the environment is controlled, pests and diseases are minimised, reducing the need for chemical pesticides.



Aquaponics
Source: Declan Sun / Unsplash

In Africa, hydroponics and aquaponics are gaining traction in Kenya, Uganda and Nigeria, especially in urban centres and schools. These systems empower youth and women entrepreneurs, improve local food production, and support food security in areas where traditional farming is challenging.

7 MOBILE-BASED AGRICULTURAL ADVISORY SERVICES

Mobile technology is revolutionising how farmers access information, with mobile-based agricultural advisory services emerging as powerful tools for boosting productivity.

Through simple SMS, mobile apps and voice services, farmers can now receive timely guidance on weather

forecasts, pest and disease management, market prices, planting techniques and fertiliser use, right from their phones.

These tools are particularly helpful for youth and women, who may face barriers to accessing traditional extension services.

By bringing expert advice directly into farmers' hands, mobile agricultural services are playing a crucial role in driving smart farming, improving yields and enhancing livelihoods across the continent.

8 IMPROVED LIVESTOCK BREEDING TECHNOLOGIES

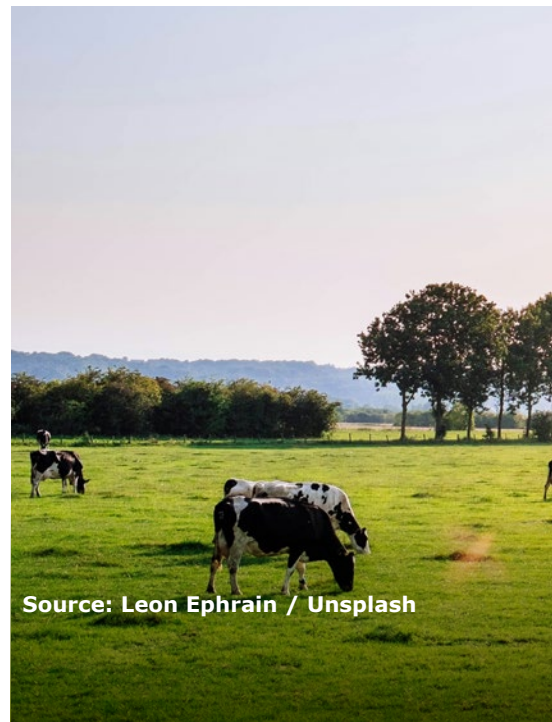
Livestock is a cornerstone of many African households, providing income, nutrition and cultural value. However, traditional breeding methods often lead to slow growth rates, low milk yields and increased vulnerability to disease.

Improved livestock breeding technologies, such as artificial insemination, selective breeding and embryo transfer, are changing that narrative by enhancing productivity, animal health and resilience.

These technologies allow farmers to produce stronger, more productive breeds that are better suited to local conditions. For example, crossbreeding local cattle with exotic breeds can lead to animals that grow faster, produce more milk and resist diseases common in African climates.

In countries like Kenya, Rwanda and Tanzania, government programmes and private initiatives are training farmers and veterinary officers in modern breeding techniques. This shift not only boosts meat and milk production but also improves household incomes and food security.

Empowering farmers with these tools ensures a more sustainable and profitable livestock sector in Africa.



Source: Leon Ephraim / Unsplash

9 SOLAR-POWERED COLD STORAGE FOR CROPS

Post-harvest losses remain a major challenge for African farmers, with up to 40% of produce wasted due to lack of proper storage and preservation.

Solar-powered cold storage offers a sustainable, off-grid solution that helps farmers preserve perishable crops like fruits, vegetables and dairy products immediately after harvest.

These systems use solar energy to run refrigeration units, extending the shelf life of produce and reducing spoilage. This not only increases income for farmers by allowing them to sell more of what they harvest but also ensures a more stable food supply for local markets.

Startups across Africa, such as ColdHubs in Nigeria and SokoFresh in Kenya, are deploying mobile and community-based solar cold storage solutions that are affordable and easy to use. For smallholder farmers, especially those in remote areas without access to electricity, these innovations are game-changers.

10 BIOFERTILISERS AND NATURAL PEST CONTROL

As awareness of environmental sustainability grows, African farmers are turning to biofertilisers and natural pest control methods as eco-friendly alternatives to chemical inputs.

Biofertilisers are living microorganisms, such as *rhizobia* or *mycorrhizae*, which enrich the soil with nutrients, especially nitrogen and phosphorus, enhancing soil health and crop yields without polluting the environment.

Similarly, natural pest control methods use biological agents like neem oil, predatory insects or companion planting to keep harmful pests in check. These approaches reduce the risk of pesticide resistance, protect beneficial organisms and ensure safer food production.

In countries like Kenya, Uganda and Ethiopia, farmers trained in organic practices are reporting better long-term productivity and lower input costs. By improving soil fertility and reducing chemical dependency, biofertilisers and natural pest control are helping small-

holder farmers build resilient, regenerative farming systems.

These nature-based solutions not only protect the planet but also promote healthier harvests and sustainable agricultural livelihoods.



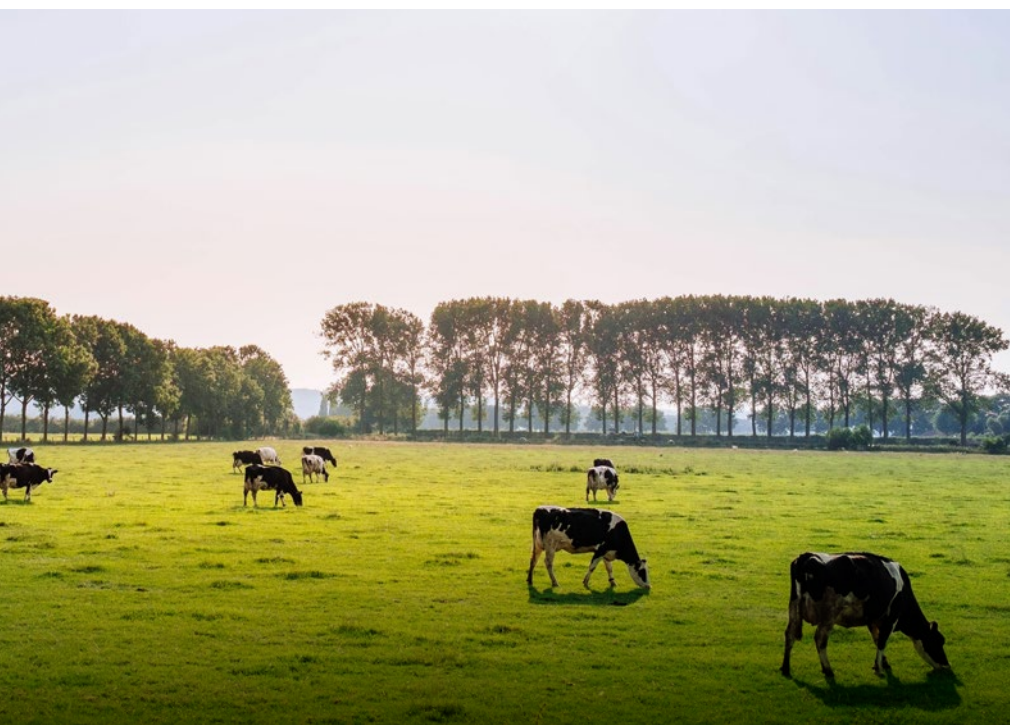
Source: Hasan Hasanzadeh / Unsplash



A parasitised macadamia nut borer egg.
(Source: Schalk Schoeman, ProAgri)



Source: Steven Weeks / Unsplash



This article has been shortened.
Read the entire article [here](#).
For more information, send an email to info@donwiseglobalpartners.org

Driven by passion, defined by strength:

The remarkable women shaping — THE FUTURE OF — LIUGONG

by Natasha Pretorius



In an industry long defined by heavy equipment, manufacturing and field operations, a powerful shift is unfolding across the globe. Women are not only entering the heavy-duty machinery sector, but they are also leading teams, refining operations and driving business strategy forward. At LiuGong, a global brand built on more than 60 years of market leadership, the commitment to fostering an inclusive, equal-opportunity workplace is evident in every department. From managing human capital across continents to closing deals on the front lines, four exceptional women share their unique journeys, daily experiences and inspiring vision for the future of heavy industry.



Emma Gikombo, HR and Administration Manager at LiuGong Machinery East Africa.

For Emma Gikombo, working for a multinational giant with a global footprint has provided an unparalleled platform for both personal and professional development. Navigating the intersection of East African and international

business cultures, her role spans the full spectrum of human capital and office operations, from talent acquisition, performance management, and compensation to fixed asset security and administration.

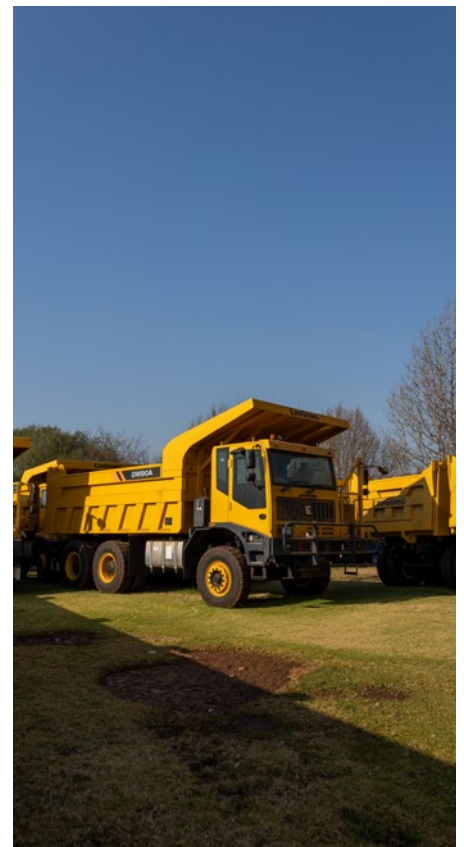
Working in a male-dominated field requires Emma to prove her capabilities, a challenge that sharpened her resilience, confidence and consistency.

She firmly believes that women bring essential value to heavy-duty industries through high emotional intelligence, strategic problem-solving and communication skills that move companies forward.



Christelle Dodo, HR Co-ordinator at LiuGong Machinery West African French-speaking region.

With four years at LiuGong Machinery West-Africa French speaking region, Christelle Dodo thrives in a working environment where freedom of expression and team collaboration are core values. Her days are built



around strategic development, people management and balancing professional aspirations with personal family responsibilities.

Christelle recognises that while administrative roles offer stability, women in field and technical positions face unique hurdles that demand robust corporate support. She actively encourages young women to ignore outdated stereotypes, trust their capabilities and step into the industry.

Christelle views the growth of female representation as an evolving journey, looking forward to a future where women across all regions are fully empowered to reach their potential.



Lesley-Ann Dipare, Administrative Supervisor at LiuGong Machinery South Africa.

Lesley-Ann Dipare brings dynamic energy and adaptability to her role as Administrative Supervisor at LiuGong South Africa. Over her four-year tenure, she has embraced the fast-paced, ever-changing demands of an office where every day brings fresh challenges and unique opportunities.

Lesley-Ann highlights that the heavy machinery sector extends far beyond physical equipment, offering rich career paths in sales, customer relations and administration where diverse perspectives lead to better solutions.

Grounded in the trust and backing provided to her by LiuGong, she continues to push herself toward excellence while advocating for expanded opportunities for young women.



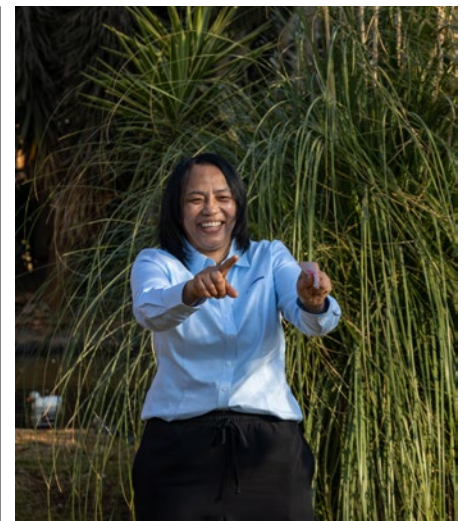
Tricia Liu, Salesperson at LiuGong Machinery South Africa.

Operating directly on the commercial side of the business, Tricia Liu acts as a vital link between local dealers and internal departments. In sales, an area where clients can occasionally underestimate female practitioners, Tricia meets scepticism with deep product knowledge, extra preparation and unwavering professionalism.



She values LiuGong's commitment to providing equal training, respectful working environments and transparent promotion paths for all employees regardless of gender.

Her message to women eyeing a career in heavy machinery is direct and empowering: do not be intimidated by stereotypes, step forward with confidence and go for it. The experiences of Emma, Christelle, Lesley-Ann and Tricia demonstrate that diversity in leadership makes a company stronger, more adaptable and more innovative.



Described by their colleagues as resilient, caring, tough and highly capable, the women of LiuGong are actively breaking down barriers and redefining what success looks like in heavy machinery.

As LiuGong continues its global journey, these leaders remain living proof that with confidence, competence and equal opportunity, women do not just belong in this industry; they thrive in it.

Early chick mortality part 3: MANAGEMENT OF DISEASE OUTBREAKS

by Barbara M. Simbaya, Technical Advisor at Tiger Animal Feeds



Early chick mortality can have a significant impact on the profitability and long-term success of any poultry enterprise. While good nutrition, proper brooding and effective biosecurity help reduce losses, disease outbreaks can still occur and spread rapidly among young chicks if not managed correctly. In this third instalment of our series on early chick mortality, we explore how to recognise the signs of disease, respond quickly to an outbreak and implement effective management practices to minimise losses and protect the health of the flock.

Diseases

Young chicks are susceptible to infections and diseases due to a lack of immunity during the first few weeks of life. It is crucial to maintain biosecurity measures; failure to do so increases the chances of a disease outbreak. Diseases such as *Pullorum* (bacillary white diarrhoea), chicken anemia virus (CAV) and *Salmonellosis* (mild to severe acute gastroenteritis) are deadly. If they enter the flock, they may cause high mortality and huge losses for the farmer.

Ways to reduce early chick mortality

Taking appropriate action when experiencing high chick mortality on your farm is imperative as failure to do so can cost you your entire flock. Follow these steps to reduce chick mortality on your poultry farm:

1. Only buy chicks from trusted suppliers

A good flock starts with a quality chick. Make sure you source chicks from a renowned supplier. Most of the health problems affecting birds can be traced to poor genetics, and this begins with the health conditions of the parent stock.

2. Inspect the health status of the chicks

Healthy chicks are bright, active and vocal with clear eyes, fluffy feathers and strong legs. They are curious, eager to eat and drink and show no signs of deformity or laboured breathing. Regardless how reliable your supplier is, it is always advised to inspect the health status of each bird before you transport them to your farm.

3. Provide the flock with adequate brooding temperatures

High and low brooding temperatures lead to high chick mortality. Hence, it is essential to provide your flock with proper brooding temperatures. Failure to do so can wreak havoc on your poultry farm.

4. Protect your flock from cold weather

Avoid drafts entirely. Chicks should not be exposed to cold winds blowing into the house through openings, causing them to get chilled. Open curtains from top to bottom and not from bottom to top. Consider designing the pen in such a way that

your birds are not exposed to extremely cold conditions.

5. Keep drinkers and feeders clean

Cleanliness is one way of keeping your flock healthy. Keep your birds' feeders and drinkers clean at all times. Make sure you clean them every morning and discard any leftover water and feed.

6. Minimise chicks' risk of suffocating

The best way to protect your birds from suffocation is to centralise the pen's heat source. If the heat source is in the centre of the pen, you can protect your birds from huddling.

Always avoid sudden loud noises in the vicinity of your birds. Birds panic when they hear a sudden loud noise, which results in them flocking together and suffocating.

Keep predators away from your farm. Birds get scared when they see predators, which leads to a panic-induced gathering that results in suffocation.

7. Prevent infections and diseases on your farm

Certain diseases can be so infectious that they can wipe out your entire flock in one go. While some diseases may not be fatal, they may reduce the growth rate of the birds by affecting the feed conversion ratio. It is crucial to check the health of your flock regularly. If you detect any disease symptoms in a bird, immediately separate it from the flock and contact your local vet to avoid further contamination of your poultry.

8. Do not give your birds mouldy feeds

Mouldy feeds can be dangerous and poisonous to your flock and should be avoided at all costs. The best way to avoid mouldy feeds on your farm is to keep them away from water. Additionally, do not store the feed in poorly ventilated, high-humidity storage rooms. It is vital not to keep feeds past their expiry dates.

9. Protect your farm from predators

Close all the holes around the farm and keep monitoring your property for signs of predators. Install strong iron mesh nets around the pens and apply predator repellents regularly.

10. Regularly clean dirty poultry pens

Remove all wet or caked litter from pens to prevent ammonia buildup. Ammonia gas can be hazardous to your birds. It leads to severe problems, such as stress, inadequate feed intake, irritation of the eyes and nasal membrane, a slow growth rate and respiratory diseases, among others coryza (inflammation of the mucous membrane lining the nasal passage) and bronchitis.

11. Supply sufficient feed

Improper or insufficient feed can lead to poor growth and slower development of your birds. When underfed, birds struggle with low body weights and poor immune responses, and as a result, they are prone to falling ill. However, overfeed-



ing can also lead to significant problems. Therefore, it is vital to provide your flock with enough feed.

12. Strictly follow medication and vaccination schedules

Following medication and vaccination practices can help farm owners considerably. When you follow medication and vaccination schedules strictly, you can keep endemic disease outbreaks at bay. Ensure that you vaccinate your birds against contagious diseases such as Newcastle disease (ND) and Gumboro disease.

Talk to your vet and obtain the right vaccination and medication schedule for the poultry species you are raising.

13. Arrange regular vet checks

Your local vet should regularly check your flock to ensure that they show no symptoms of contagious diseases. Remove all recovered birds from the flock, as these birds are a reservoir of infection. This way, you can keep your other birds safe and healthy.

In conclusion, we can safely say that healthy chicks grow into excellent quality chickens that sell well at the market and earn you lots of money. Do not compromise. Do the right thing by taking the correct measures to get the best results from your birds.

Use Tiger chicks and Tiger feed products and see your business grow!

For more information, contact Barbara Mulonda Simbaya, Technical Advisor at Tiger Animal Feeds by sending an e-mail to barbara.mulonda@tigerfeeds.zm or calling (+260)969-202-207.

HEALTHY SOIL starts with HEALTHY MICROBES

by Bianca Pretorius

Why protecting beneficial soil bacteria is one of agriculture's greatest investments

For generations, farmers have understood that healthy soil produces healthy crops. Today, science is confirming what experienced producers have long observed in the field: beneath every successful crop lies a thriving community of microscopic organisms working tirelessly to support plant growth.

Although invisible to the naked eye, billions of bacteria, fungi and other microorganisms inhabit every handful of productive soil. Together they form a thriving, living ecosystem that drives nutrient cycling, improves soil structure, suppresses disease and ultimately contributes to much higher yields. Unfortunately, these extremely valuable organisms are often overlooked.

More than just dirt

Soil is far more than a medium that anchors plant roots. It is a living environment where countless organisms interact continuously.

Beneficial bacteria perform numerous essential functions. Some break down organic matter, releasing nutrients that become available to crops. Others convert atmospheric nitrogen into forms that plants can absorb, reducing the need for synthetic fertilisers.

Certain bacteria even stimulate root development and produce natural compounds that help plants tolerate drought, salinity and other environmental stresses.

These beneficial organisms are commonly referred to as plant growth-promoting bacteria because of the direct role that they play in improving plant performance.

Nature's underground workforce

Beneficial soil microbes operate around the clock. As crop residues decompose, bacteria recycle valuable nutrients back into the soil. Other microorganisms produce substances that bind soil particles together, improving soil structure, water infiltration and resistance to erosion.

Healthy microbial populations also compete with harmful organisms, helping to suppress soil-borne diseases before they become serious problems. This natural balance is one of agriculture's most valuable assets.

The cost of disturbing soil life

Modern agriculture faces increasing pressure to produce more food from limited land while protecting natural resources.

However, intensive cultivation, soil compaction, pollution, excessive chemical use and the loss of organic matter can significantly reduce microbial diversity.

When beneficial microbes decline, soils become less resilient. Nutrient cycling slows, water retention decreases and crops become more vulnerable to disease and environmental stress.

Restoring damaged soil biology often takes years, making prevention far more effective than rehabilitation.

Every organism has a purpose

Not all bacteria are beneficial. Some species cause diseases in plants, animals and humans.

Yet researchers continue to emphasise that the beneficial organisms in healthy soils vastly outnumber harmful ones. Maintaining this balance is essential for productive farming systems.

The same soil that supports bacteria, also provides habitat for fungi, earthworms, nematodes, insects and countless other organisms that contribute to a functioning ecosystem. Healthy soils depend on healthy biodiversity.

Farming with biology

Across South Africa and Africa, more producers are adopting practices that protect soil biology. These include reducing unnecessary soil disturbance, maintaining crop residues, planting cover crops, incorporating compost and organic amendments, and applying biological products where appropriate.

Such practices help rebuild microbial populations while improving soil health over the long term.

Investing below the surface

Soil is one of agriculture's greatest natural resources, yet its most valuable workers remain largely unseen. Every decision made in the field affects the living community beneath the surface.

By protecting beneficial soil microorganisms, farmers are not only investing in healthier crops today but also preserving productive land for future generations.

Healthy soils are living soils and living soils are the foundation of sustainable agriculture.





NOW OPEN IN CHONGWE!



Along Great East Road, opposite
Deliverance Church



Distributors of Dekalb maize seed

DKC 80-33
DKC 90-89
DKC 80-53
DK777

Tamanga Early maturing	
Ngao - Ngao	Medium maturing
-	-
Shoma	Medium maturing



The African Seed Company

All types of hybrid maize seed | Vegetable seeds | Soya seeds & more



Protect your crops

Fertilizers | Pesticides | Fungicides | Herbicides | Insecticides



The home of ALL FARMERS

We care about your livestock and pets

Animal Feed & medicine



Agricultural tools | Hand tools | Protective equipment | Irrigation equipment



**FARMERS
BARN LIMITED**

Farmers Barn Ltd.

Tel: +260 211 225 352
Cell: +260 977 518 635
Farmersbarn_ltd@hotmail.com

Address

Plot 51,
Chiparamba Road,
Lusaka, Zambia

Mumba Road branch

+260 975 386 240
Mumba Road, next to
Uniturtle, Lusaka



Indaba secures long-term future and sustainability of

NAMIBIA'S

sheep industry

Compiled by Martie Bester

More than 230 sheep farmers attended the Livestock Producers Organisation's (LPO) Sheep Indaba on 22 July at the Padlang Padstal in Mariental, sending a strong message that the industry is united in its pursuit of greater profitability at farm level, stronger participation throughout the value chain and improved access to competitive markets.

Hosted by the LPO, the Indaba provided farmers with an opportunity to discuss the future of Namibia's sheep industry and consider practical steps towards achieving long-term sustainability.

Establishment of farmer-driven company receives overwhelming support

"To determine the way forward, farmers were asked to decide on two fundamental principles. The first was whether they supported the establishment of a farmer-driven entity with the objective of ensuring that farmers are represented throughout the value chain and have greater insight into its operations, ultimately improving profitability at farm level.

"The second was to decide what structure the investment vehicle should take," says Jako van Wyk, Chairperson of the LPO.

"The first principle received overwhelming support from the small stock farmers who attended the meeting. On the second principle, farmers resolved to proceed with the establishment of the company."

The proposed structure will include both founder shares and economic shares, with founder shares priced at N\$7 500 each.

"In the view of the organisers, this represents a modest investment in securing the long-term future and sustainability of Namibia's sheep industry," says Van Wyk.

He explains that the company will have two classes of shares: Class A and Class B. Class A shares will be held by farmers and will provide the mandate to direct and govern the company in line with its objectives, while Class B shares will represent the economic shareholding in the business.

'A broader vision for the future'

"Drawing on the numerous studies commissioned by the LPO over the years, particularly those conducted during the past two

years, as well as the work of the small stock advisory committee it established, one message emerged clearly: small stock farmers have a broader vision for the future," says Van Wyk.

"Their ambition extends beyond investing in a single processing facility or relying on a single marketing channel."

Following its work on the sheep industry study, Cirrus Capital was appointed to oversee the development and implementation of the share offering. Further details will be communicated to interested farmers, including communal and emerging commercial farmers. To participate, farmers must be registered with the Livestock and Livestock Products Board of Namibia (LLBPN).

The sheep advisory committee, established at last year's LPO congress, presented its recommendations at the Indaba. Central to its findings was the need for farmers to play a more influential role across the entire value chain, ensuring they have a greater say in the marketing and commercialisation of the products they produce.

The committee also highlighted the importance of expanding export opportunities for Namibian mutton and lamb. Rather than relying predominantly on one or two traditional markets, it recommended exploring new opportunities in neighbouring countries such as Zambia and Angola, alongside the established South African market.

Safeguarding the industry's future

"Looking ahead, the next eight weeks will focus on an intensive awareness and marketing campaign to establish the company and invite interested farmers to become shareholders," says Van Wyk.

"The campaign will make use of the Namibia Agricultural Union's communication platforms, while the union's regional representatives and the small stock advisory committee, which has been instrumental in guiding the entire process over the past year, will host regional meetings to inform farmers about the initiative."

An online communication campaign will also be launched to ensure that farmers across the country have access to the necessary information.

"Farmers are encouraged to follow these communication channels and attend the regional meetings to learn more about the company and the opportunities it presents," Van Wyk concludes.

The committee stressed that decisive action is needed to safeguard the industry's future, warning that if farmers do not take the lead in shaping the sector, others will, potentially resulting in outcomes that do not reflect farmers' interests.

With special thanks to Nicole Schwandt, Marketing Assistant, NAU.



Jako van Wyk, Chairperson of the LPO. (Image: Supplied)

**For more information, contact
Leigh-Ann Nehoya at
stats@nau.com.na or
(+26)482-4099-320.**

**Interested parties can also visit
[https://www.facebook.com/
NamibiaAgriculturalUnion](https://www.facebook.com/NamibiaAgriculturalUnion)**

The advantages of the use of DRONE TECHNOLOGY ON FARMS

by Martie Bester

Source: Ken Treloar



The greatest advantage that farmers who use technology, specifically drones, have over farmers who have not yet embraced technology, is not necessarily the drone itself," says Ken Treloar, a worldwide expert in the intersection of plant science, farm management and technology.

"It's the ability to see more of the farm, see it sooner, and make decisions using information that would otherwise be difficult, expensive or time-consuming to collect. A farmer standing in a field, orchard or vineyard has an intimate understanding of what is happening at ground level, but that view is naturally limited to the immediate surroundings."

Ken says a drone adds another layer of visibility because it allows the farmer, manager, agronomist or technical specialist to see patterns across an entire block, farm or infrastructure site rather than relying only on individual observations.

"However, technology does not replace driving around and walking the land," Ken adds. "In many cases, the drone helps the farmer decide where to walk first, or with a high-level overview of the area, he finds himself wanting to inspect. This can be a quick view to validate concerns broadly, or a detailed mapping of the area for later analysis."

Mapping drones

These drones are equipped with RGB, multispectral or thermal sensors and can identify spatial variation that is not always obvious from the road or from ground level. Depending on the crop, season, sensor and software, this can include uneven growth, missing plants, canopy variation, possible water stress, drainage patterns, irrigation problems, extent of storm damage and areas requiring closer inspection.

"A drone provides the above-ground signals and patterns while field inspections, soil information, irrigation records, agronomic knowledge and sampling help explain the cause."

The advantage is narrowing the search and focusing limited time, labour and specialist attention where these resources are most likely to add value.

Spraying drones

These drones provide a different advantage. They allow farmers and operators to apply products in places where conventional ground machinery is slow, impractical or unable to operate effectively.

This can include steep terrain, wet fields, sensitive soils, tall crops, orchards and areas where tractor movement would cause crop damage or compaction.

"A spraying drone can also reduce the need for workers to carry out physically demanding manual applications and limit direct exposure to agricultural remedies. This benefit still depends on correct planning and operation," he says.

"Product registration, label instructions, spray coverage, droplet size, weather, drift management, flight height and operator competence remain essential. Poor spraying does not become good spraying simply because a drone performs the task."

Farmers who integrate drones effectively can gain advantages through:

- Faster inspections
- Repeatable data collection
- Improved farm recordkeeping
- More focused crop scouting
- Safer access to difficult areas
- More precise input applications
- Earlier identification of unusual patterns
- Better communication between farm teams and advisers

Beyond crop monitoring and spraying, the same technology also has value. Drone-derived orthomosaics provide a current, high-resolution view of farms, roads, dams, roofs, buildings and development sites.

"Three-dimensional models support planning for new agricultural infrastructure, earthworks, drainage, roads, storage areas and other large scale projects," says Ken.

Where more complex terrain, vegetation or structural detail is involved, Light Detection and Ranging (LiDAR) adds accurate elevation and three dimensional point-cloud information.

Ahead of a solar photovoltaic (PV) installation, drones assist with roof measurements, roof geometry, possible obstructions, access planning and the creation of a visual record of the site. This information supports the engineering and site-verification process, although it does not replace a proper structural assessment or detailed technical inspection.

"Once a solar photovoltaic system is operating, thermal drone inspections help identify unusual temperature patterns across modules and sections of the installation," Ken explains. "These patterns direct qualified technicians towards areas requiring closer investigation."

"Soiling, bird droppings, nesting material, damaged wiring, shading, faulty connections and module defects can all affect the performance and lifespan of a solar asset."

"A thermal inspection does not provide the final electrical diagnosis, however, it makes the investigation faster, and efforts are focused and streamlined."

Drones also have a place in farm security. Ken says they can support proactive patrols of fence lines, roads, reservoirs, pump stations, equipment yards and isolated infrastructure.

Reactively, a drone can provide an aerial overview following an alarm, incident or reported disturbance before personnel enter the area.

"Farmers who use this technology will gain the ability to identify variation earlier, inspect more efficiently and respond with greater precision. The farmer who knows sooner can act sooner. That is the real advantage."

"A drone does not replace guards, access control, cameras, communication systems or good security procedures. It extends their visibility and reach."

Why farmers should embrace technology on their farms

"They should embrace useful technologies because modern agriculture

is increasingly a competition for margin, timing, efficiency, risk mitigation and resilience. Input prices continue to place pressure on farming businesses, while weather conditions, water availability, energy supply, labour requirements and market expectations add further complexity," says Ken.

He adds that water, fertiliser, agricultural remedies, fuel, electricity, machinery hours, labour and time must all be managed carefully. Technology gives farmers additional tools to understand where these resources are being used effectively and where performance is falling short.

"This does not mean that every farmer needs to buy every new device or subscribe to every digital platform. Technology for the sake of technology can become an expensive distraction.

"A drone that does not address a relevant farming or business need is simply another cost," Ken says.

He says the starting point should always be the problem, requirement or desired outcome. A farmer should first define what needs to be understood, improved, inspected or applied.

"This is important because farmers should not adopt technology through fear of being left behind. They should adopt it because it supports better decisions, improves an existing process, reduces risk or creates measurable operational value."

He adds that modern drone systems are useful because they bring several technologies together.

- The Unmanned Aerial Vehicle (UAV) carries the sensor or application equipment.
- Positioning systems record where data was collected or where a product was applied.
- Software plans the flight and processes the output.
- Cloud platforms allow information to be stored, compared and shared.
- Artificial intelligence assists with counting plants, identifying objects, selecting representative sampling locations and highlighting unusual patterns, and more.

"The value doesn't sit in one of these technologies alone. It comes from how the full process supports a real decision on the farm. For example," Ken says, "a drone survey identifies an area of

weaker crop performance. That area is then inspected, sampled and compared with irrigation layouts, soil information, crop history and yield records.

"Once the likely cause has been identified, an intervention is planned. A later survey determines whether the action produced an improvement."

Drones help farmers make important decisions quickly and efficiently

Hundreds of decisions influence a farmer's annual result. Some appear small at the time but become expensive when repeated across several hundred hectares or allowed to continue for weeks or months.

"Farmers and managers must constantly decide which areas to monitor, where to sample, which irrigation lines or pivots to inspect, where to apply inputs, which plants or areas of a field require attention and whether a previous intervention has actually worked.

"They must also make decisions about new developments, drainage, access roads, water storage, buildings, electrical infrastructure, energy systems, construction and security," says Ken.

He emphasises that the advantage isn't the production of heaps of data. "It's about improving the quality of the decisions made from that data. So, the advantage comes from having another capable tool available when conditions make it the best option, not because a drone is the end-all and be-all new kid on the block."

Ken mentions that drone records also improve communication. A current orthomosaic, annotated map, thermal image or three-dimensional model can be shared with an agronomist, engineer, contractor, insurer, electrician, farm owner or manager. Everyone can refer to the same visual information rather than rely only on verbal descriptions.

This adds value during:

- Insurance assessments
- Storm-damage inspections
- Construction monitoring
- Irrigation investigations
- Infrastructure maintenance
- Solar project development
- Security planning and incident reviews
- Crop-performance and yield discussions

Ken highlights the fact that PV installations are becoming increasingly important farm assets as agricultural businesses seek more predictable electricity costs and improved energy resilience.

"As the value and scale of these systems increase, so does the importance of inspecting and maintaining them properly."

The financial benefit of technology must still be measured

Farmers should compare the cost of a drone survey, spraying service or inspection against the value of the decision it supports.

Return on investment (ROI) is not always a dramatic yield increase, but it can include:

- Reduced scouting time
- Lower unnecessary input use
- Early identification of crop stress
- Reduction in machinery movement
- Improved construction oversight
- Quicker infrastructure inspections
- Prevention of larger losses or failures
- Better evidence for technical and insurance discussions
- More accurate plant inventories for orchard and vineyard crops

How farmers can embrace the use of drones on their farms

"My first piece of advice would be not to begin by buying a drone. Begin with one relevant farm question. Farmers who are reluctant to adopt technology are often not opposed to improvement. They are wary of spending money on a system that is complicated to use, poorly supported or unable to produce a practical return," says Ken.

"These are reasonable concerns, particularly when technologies are marketed using complicated terminology, impressive demonstrations and promises that are difficult to measure."

According to Ken, the safest starting point is a small, clearly defined project. "A farmer might select one field, one orchard block, one roof, one dam, one construction site or one recurring security concern.

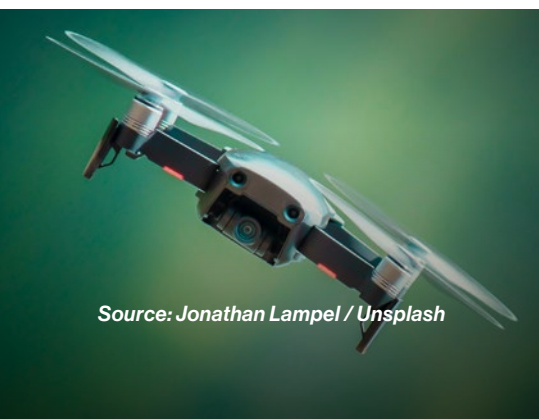
"The project should have a specific outcome, such as mapping storm damage, identifying missing trees, inspecting irrigation variation, treating a difficult area, assessing a roof ahead of solar installation or checking the performance of an existing solar array."

A qualified service provider (agri drone pilot) can then conduct the work without the farmer having to purchase equipment or become a pilot themselves, Ken advises.

Before the drone flies, the farmer and provider should agree on what will be delivered and what decision the output must support. "A map without interpretation, field verification or an action plan can quickly become another forgotten file on a computer," he says.

Farmers should ask prospective drone providers to explain the following:

- The specific problem the service will address
- The information or deliverables supplied after the flight
- The accuracy and limitations of the resulting information



Source: Jonathan Lampel / Unsplash

- The person responsible for processing and interpreting the data
- The actions the farmer or farm team can take from the results
- The way success and return on investment will be measured
- The compatibility of the output with current farm systems and equipment
- The provider's operating approvals, pilot credentials, insurance and experience
- The additional requirements applying to spraying, surveying or specialised inspections

"Farmers do not all need to become drone pilots. They already use agronomists, crop advisers, surveyors, electricians, engineers, security providers and other specialists," Ken says.

He advises that drone work can be approached in the same way. A competent provider can supply the aircraft, pilot, sensors, processing capability, compliance and technical support.

"The farmer remains responsible for defining the agricultural or commercial need and making the final management decision."

Where regular use begins to justify internal capability, selected employees can receive formal training. The farmer can then decide whether bringing part of the process in-house makes financial and operational sense. Farmers should also distinguish between learning to

fly a drone and learning to use drone information. These are not the same skills, emphasises Ken.

"A trained pilot might understand aviation, flight planning and aircraft operation but have limited knowledge of crop production. An experienced farmer or agronomist might understand the crop exceptionally well but require assistance with sensor data and mapping outputs. The best results usually come from combining these areas of expertise."

Farmers can learn more through:

- Agricultural associations
- Practical demonstration days
- Grower and producer study groups
- Reputable drone service providers
- Approved aviation training organisations
- Agronomists and specialist crop advisers
- Agricultural publications and case studies
- Universities, colleges and technical institutions
- Industry conferences, field days and webinars
- Pilot projects using the farmer's own fields or infrastructure

Ken says the most useful learning takes place when the farmer looks at their own data and relates it to something visible on the ground. "A general presentation

can explain what technology is capable of doing, but a well-designed pilot project shows whether it works in a particular farming operation."

Farmers should also ensure that the provider operates within South Africa's aviation and agricultural requirements. Business, agricultural and commercial drone operations shouldn't be treated as casual recreational flying. Spraying operations introduce further requirements because they involve both aviation compliance and the regulated application of agricultural remedies.

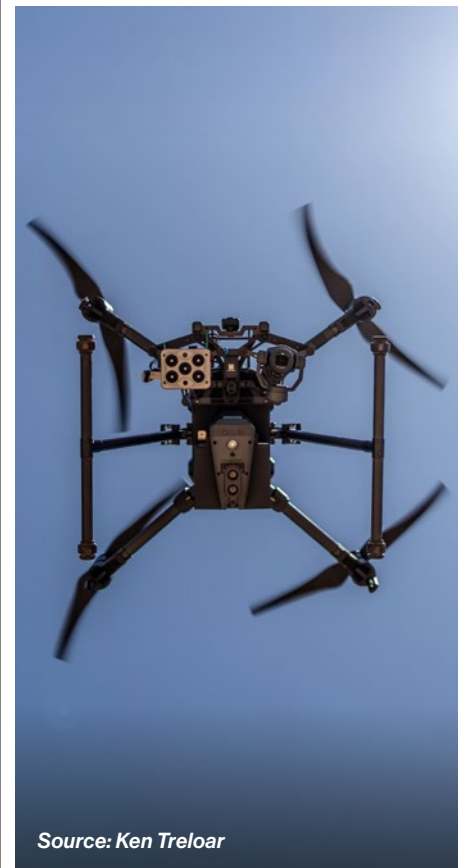
"The farmer doesn't need to understand every legal and technical detail personally, but should verify that the provider is properly qualified, approved, insured and authorised to perform the work being offered."

In summary, a practical adoption process would be to start small, verify the output in the field, measure the value and expand only where the technology proves itself.

"Farmers should not feel pressured to digitise the entire operation at once. They don't need to embrace every available technology. They need to remain open to the technologies that help them see sooner, work safely, reduce waste and make better decisions," says Ken.



Source: Ken Treloar



Source: Ken Treloar

Farming with Flowers

Why Kenya's flower industry continues to bloom

By Loren Howard

When you receive a beautiful bouquet, it is easy to admire the colours, the fragrance and the perfect blooms. However, many people do not realise the incredible amount of work that goes into growing every single flower. Behind every bouquet are farmers, greenhouse workers, careful planning and months of dedication.

Kenya has become one of the world's leading flower-producing countries, with millions of flowers leaving the country daily to brighten homes, weddings and special occasions across the globe.

For thousands of people, flower farming is not just about growing something beautiful, it is a way of making a living and helping one of Kenya's biggest agricultural industries flourish.

This article marks the beginning of our 'Farming with Flowers' series, where we will take a closer look at Kenya's thriving floriculture industry. Over the next few articles, we will explore the country's most popular commercial flowers, how they are grown, and what makes Kenya one of the best places in the world to produce them.

Why Kenya?

Not every country can grow flowers the way Kenya can. Many of Kenya's flower farms are found in areas such as Naivasha, Thika, Nakuru, Eldoret

and around Mount Kenya. These regions offer exactly what flowers need to thrive: high altitudes, fertile soils, plenty of sunshine and mild temperatures throughout the year.

The result is flowers with vibrant colours, strong stems and an impressive vase life. These are qualities that buyers around the world look for.

Nature certainly gives Kenyan flower farmers a helping hand, but producing export-quality flowers still takes skill, experience and attention to detail.

An industry built on opportunity

Kenya's flower industry is about far more than growing beautiful blooms, it is a major contributor to the country's economy. The sector generates billions in export revenue each year while creating employment for hundreds of thousands of people, from greenhouse workers and farm managers to pack-house staff and logistics teams.

Whether on large commercial farms or smaller family-run operations, flower farming continues to create opportunities for entrepreneurs and farmers looking to diversify into a high-value crop.



Maintaining Kenya's reputation as one of the world's leading flower exporters requires more than favourable growing conditions. Growers must meet strict international quality, environmental and social standards throughout the production process.

Organisations such as the Kenya Flower Council (KFC) and the Horticultural Crops Directorate (HCD) help guide and regulate the industry, while sustainability standards such as the Flowers and Ornamentals Sustainability Standard (FOSS) recognise farms that follow good agricultural practices, protect the environment and prioritise worker welfare.

These certifications give international buyers confidence that Kenyan flowers are produced responsibly and to the highest standards.

More than just planting flowers

Flower farming is much more technical than many people think. Before a single flower is planted, farmers need to decide which varieties will perform best in their climate, and which flowers are in demand on local and international markets.

They must also consider planting dates, harvest schedules and even major events like Valentine's Day and Mother's Day, when flower demand reaches its peak.

Once planting begins, the work really starts.

Healthy soils, reliable irrigation, careful fertilisation and effective pest management all play an important role in producing flowers that meet the high standards of international buyers.

Flowers are harvested at exactly the right stage, cooled almost immediately and carefully packed before beginning their journey to customers around the world.



Growing with the future in mind

Like many agricultural industries, Kenya's flower sector is placing a greater focus on sustainability. A lot of farms are investing in rainwater harvesting, biological pest control, renewable energy and other environmentally friendly practices that help reduce their impact while maintaining excellent flower quality.

International certifications have also become increasingly important for growers supplying overseas markets.

This is proof that beautiful flowers and responsible farming can go hand in hand.



A flower for every occasion

Although Kenya produces a wide variety of flowers, a few have become true stars of the industry. Roses remain the country's biggest export, while carnations, Peruvian lilies (*alstroemeria*) and *gypsophila*, better known as baby's breath, are also highly sought after for bouquets and floral arrangements around the world.

Each flower has its own growing requirements, unique characteristics and role in the market, and that is exactly what makes this industry so fascinating.

Join us on the journey

Every flower has a story to tell, and every successful bloom starts long before it reaches a vase.

Over the coming weeks, we will step inside Kenya's flower farms to discover what it takes to grow some of the world's most beautiful blooms. We will begin with Kenya's most famous export, the rose, before exploring carnations, Peruvian lilies and baby's breath, and learn why each of these flowers plays such an important role in the country's flourishing floriculture industry.

Whether you are a farmer looking at diversification, someone with a love for flowers, or someone who is simply curious about one of Africa's most successful agricultural sectors, we hope you will enjoy joining us on this journey.

Sources

Kenagro Suppliers Limited. (2025). Flower farming in Kenya: Essential success tips. <https://kenagro-suppliers.co.ke/2025/05/07/flower-farming-in-kenya/>

Eco Agriculture Kenya. Flower farming in Kenya: Blossoming opportunities in the floral industry. <https://eco-agriculturekenya.co.ke/resource-center/flower-farming-in-kenya-blossoming-opportunities-in-the-floral-industry/>

New Leaf Seedlings. (2026). Flower farming in Kenya and why it remains one of the most rewarding agricultural ventures. <https://newleafseedlings.co.ke/2026/06/20/flower-farming-in-kenya-and-why-it-remains-one-of-the-most-rewarding-agricultural-ventures/>



Sophy Litshani Musabeni:

'When women work together in agriculture, communities become stronger and food systems become more resilient'

by Martie Bester

Sophy Litshani Musabeni is no ordinary farmer, and her journey from growing spinach as a young girl in her family's backyard to becoming a highly successful businesswoman is not ordinary either. Nor is her approach to life, as she generously shares her knowledge of farming and creates employment opportunities for women. Hers is a story of a humble upbringing in the Mutele village in Limpopo, and an entrepreneurial spirit that brought her to the pinnacle of success in an industry largely dominated by men. Sophy's inspiring journey has always been rooted in the strong philosophy of giving back, even when she was young and just starting with a small farming business. Over the years, she has transformed small successes into significant achievements, cementing her reputation as a force to be reckoned with in modern farming.

"From a young age, I was exposed to farming through my family and my community, where agriculture was not only a source of food but also a way of life," says Sophy. "Watching crops grow from a small seed into something that could feed people fascinated me and inspired me to become involved in agriculture. I also saw the challenges that farmers faced, including climate change, limited market access and post-harvest losses, which motivated me to find better solutions.

'A small spinach garden' to 'a sustainable agricultural business'

"My love for spinach started because it was one of the easiest and most reliable vegetables to grow. It matured quickly, was always in demand, and I noticed that many families in my community bought spinach regularly. I saw an opportunity to turn something I enjoyed into a small business. I started by planting spinach in a small plot and selling bunches to my neighbours. The positive



response encouraged me to expand production each season."

As her confidence grew, Sophy approached nearby mines at the age of 18 to supply fresh spinach for their kitchens and catering services. It was a big step for someone so young, but she learned the importance of consistency, quality and reliability, which would serve her well in years to come. "Supplying the mines meant I had to plan my planting schedules carefully, harvest on time and ensure the vegetables were always fresh."

Looking back, she says those early experiences taught her valuable lessons about entrepreneurship, customer service and hard work. "These lessons also gave me the confidence to dream bigger and eventually establish my own company. The passion that started with a small spinach garden in my childhood continues to drive my vision of building

a sustainable agricultural business that creates jobs, supports local farmers and supplies high-quality produce to local and international markets.

"At Vhegies Pty Ltd, I focus on producing high-quality vegetables while promoting sustainable farming practices. Every challenge I have encountered has strengthened my determination to learn, innovate and help other farmers succeed," she says. Opportunities such as international training programmes and partnerships have further inspired her to continue growing both personally and professionally, with the goal of making a meaningful contribution to South Africa's agricultural sector.

Nursing: not that dissimilar to farming

After school, Sophy's mother encouraged her daughter to go to university and become a nurse. She took the advice to heart and, after qualifying, began a career in caring for others. Believing she should pursue her dream of farming, Sophy left the nursing profession in 2017 and focused entirely on turning her dreams into reality. However, her career in nursing had not been in vain, as she says nursing provided her with "a set of practical skills that I still use every day in farming, though the two fields seem very different".

"One of the biggest lessons I learned as a nurse was observation and early detection. In nursing, you learn to notice small changes in a patient's condition before they become serious. I apply the same thinking to crops, watching for early signs of pests, nutrient deficiencies or disease so I can act quickly before it spreads.

"I also learned discipline with hygiene and infection control. In healthcare, cleanliness is non-negotiable. On the farm, this translates into good field hygiene, clean tools, proper handling



of inputs and reducing contamination risks, especially in post-harvest handling."

She says another important skill was record-keeping and following procedures. "In nursing, accurate records can save lives. In farming, keeping records of planting dates, inputs, weather patterns and yields helps me make better decisions and improve productivity over time."

Although farming may not have been something she clearly understood as her destiny when she was young, looking back, the signs were always there. "I was drawn to growing vegetables, observing how food is produced and finding satisfaction in seeing plants thrive. Over time, those early interests turned into skills and opportunities that shaped my path."

"Challenges along the way also helped confirm my commitment, because I learned resilience and problem-solving through farming. So rather than a fixed destiny, I see farming as a direction that grew naturally from my experiences, choices, passion for working with the land and feeding others."

Never say die and other valuable attributes

Due to its very nature, farming is uncertain. And therefore, farming successfully requires grit and courage. Sophy believes women who want to become farmers must possess specific attributes to propel them forward in their careers.

"A successful farmer usually combines practical skills with strong personal skills. Firstly, patience and resilience are essential. Farming depends on weather conditions, seasons and factors you cannot control, so setbacks are normal. A good farmer learns to adapt instead of giving up."

"Also, hard work and discipline matter a lot. Farming requires early mornings, consistent routines and attention to detail every day, not just when it is convenient. Observation and learning ability

are important. Successful farmers pay close attention to soil, plants, pests and climate changes, and they keep improving through experience and new knowledge.

"Excellent planning and management skills help with budgeting, timing of planting and harvesting and using resources efficiently, and finally, passion for agriculture is what keeps a farmer going in the long term. When you genuinely care about growing food and improving production, it becomes easier to stay committed even during difficult seasons."

Know thyself

As a woman who embodies resilience and the courage to pursue her dreams against all odds, Sophy offers valuable insight.

"For women who want to enter farming, the most important advice is to start with clarity about both purpose and patience. Farming is not only about production; it is also about observation, timing and learning from failure. Begin small if possible, even with a garden or a single crop, so you can understand your local soil, climate and market before expanding."

"To identify which area of farming suits you, look closely at your natural strengths and what you enjoy consistently," she says. "If you like working with people and numbers, agribusiness, marketing or farm management may fit you well. If you enjoy hands-on physical work and observing plant growth, crop production or horticulture might be better. If you are more analytical, agronomy, soil health or controlled-environment farming could be a match."

"Also, pay attention to what keeps you engaged over time, not just what seems profitable at first. Speak to experienced farmers, visit different types of farms and test small projects. Your direction often becomes clearer through doing, not just planning."

Female farmers and their unique contribution to agriculture

A strong woman gives of herself and builds on her strengths, says Sophy.

"I feel that in many contexts, female farmers tend to be highly resourceful and efficient with limited inputs, especially where they have had less access to land, credit or machinery. This can lead to strong skills in diversification, careful resource management and intensive cultivation methods. Women are also often deeply involved in food crops and household nutrition, which can shape a stronger focus on crop diversity, food security and value for local markets."

For Sophy, the journey from small-scale farming to supplying major retailers in South Africa did not happen overnight. "It started with focusing on consistently producing high-quality patty pans, butternuts, green beans and spinach on a small but disciplined scale. I firstly built trust in our local markets, where every delivery had to meet strict freshness and grading standards."

"As Vhegies Pty Ltd, we reinvested



earnings back into the farm, expanding irrigation systems, improving soil health and introducing better seed varieties. We also strengthened our post-harvest handling so that our vegetables could meet retail shelf-life requirements."

A turning point on her journey to becoming the mastermind behind Vhegies Pty Ltd, was learning to treat farming like a business, not just production. Sophie learned to understand contracts, supply schedules and retailer expectations. "Building relationships with buyers and consistently delivering on time helped us scale our production."

With hunger and malnutrition being such devastating problems in South Africa, Sophy says her company's responsibility to address these issues goes beyond producing vegetables. "We see ourselves as part of the solution to food insecurity and poor nutrition in our communities. While we may not always run large formal feeding programmes ourselves, we actively contribute in practical ways."

"One of the most important things we do is collaborate with local schools, retailers and community organisations to make fresh vegetables more accessible and affordable. We also support awareness efforts by sharing knowledge about the nutritional value of crops like spinach, butternuts, green beans and patty pans, foods that are rich in vitamins, fibre and essential minerals for growing children."

Another of Sophy's remarkable achievements is creating jobs in a country plagued by unemployment. Currently, she employs 25 permanent staff members and around 50 seasonal workers at Vhegies, depending on production cycles and peak harvest periods.

"This is something we are deeply proud of, because employment goes far beyond just numbers for us. It represents real families, real responsibilities and real livelihoods. In a country where unemployment remains a serious chal-



lenge, being able to create both stable and seasonal work opportunities is a meaningful part of our contribution to society."

Always advocating for women's rights, Sophy is deeply invested in and focuses strongly on employing women, which she says is one of the most defining aspects of the business.

"With around 90% of the workforce being women, this means most of the production, packaging, quality control and day-to-day farm operations are driven by female employees. These roles typically include planting, weeding, harvesting vegetables like patty pans, butternuts, green beans and spinach, as well as sorting, grading and preparing produce for retailers."

Patience, discipline, observation and consistency

As someone who did not receive anything on a silver platter, life often taught Sophy valuable lessons. She believes in sharing her knowledge with aspiring farmers, incorporating the "pay it forward principle" in everything she does.

"To all the women in South Africa who are stepping into farming, especially those starting small with limited resources, my message is simple: start where you are, with what you have and grow steadily. Farming is not only about land or money; it is about patience, discipline, observation and consistency.

"Many successful farmers begin exactly like that on a small piece of land, sometimes even a backyard garden. The important thing is to treat even a small plot like a serious business from day one. Learn your soil, understand your crops and don't rush growth. Farming rewards those who respect the process."

She says aspiring female farmers, par-

ticularly those who do not have access to large amounts of money, should focus on high-value, fast-growing crops such as spinach, onions, tomatoes or green vegetables that can generate income quickly. "Reinvest every profit back into your farm instead of spending it too soon. Growth in farming often comes in cycles. What you earn in one season becomes the seed for the next."

New horizons

After all these years, Sophy's entrepreneurial spirit still prevails, and she is ready to take on a new challenge: exporting her produce to the international markets. "Our export plans are progressing steadily. We are already supplying produce within the SADC region, which has helped us build experience with regional logistics, quality standards and consistent supply.

"At the same time, we are currently working on entering the German market. This process is still in progress as we continue to meet the required export standards, certifications and packaging requirements needed for that market. It is an exciting step for us because it opens opportunities for growth and exposure to a more competitive international market."

To Sophy, Women's Month is a time to uplift other women. "To women in farming and those aspiring to enter the sector: use every opportunity to learn, whether from training, other farmers or even your own mistakes. Don't be afraid to innovate or to try new markets. Most importantly, support other women, because when women work together in agriculture, communities become stronger and food systems become more resilient."

Aspiring female farmers are welcome to contact Sophy on 082 5957 939 or 083 3957 671, send an email to info@vhegies.co.za or visit the website: www.vhegies.co.za



HOW TO PRODUCE THE IDEAL WEANER CALF

Article supplied



Source: Sean Nyatsine / Unsplash

For cattle farmers, producing a quality weaner calf is about far more than achieving a good sale-day price. The characteristics that make a calf attractive to feedlots are often the same factors that improve productivity and profitability on the farm.

According to Jaco Liebenberg, Technical Manager Feedlot & Farms at Beefmaster Group, understanding what buyers look for can help farmers make decisions that add value long before a calf enters the feedlot.

"A successful weaner calf is one that performs well throughout the value chain," says Liebenberg. "The ideal calf ensures maximum profit per hectare for the farmer while maintaining top performance in the feedlot."

Here are the most important qualities that feedlots look for in weaner calves.

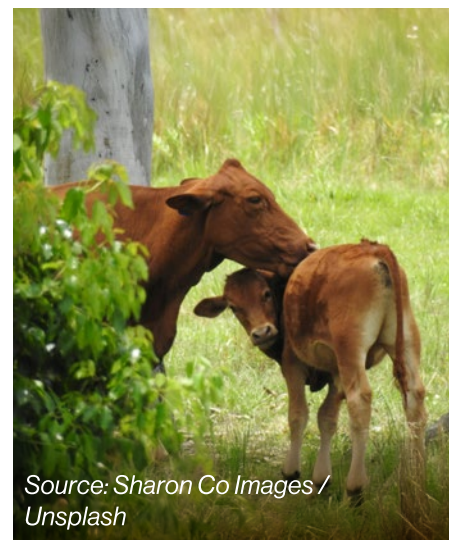
QUALITY #1: HEALTH COMES FIRST

While genetics, weight and growth potential all matter, Liebenberg says calf health remains the single most important factor.

"A healthy calf is the foundation of feedlot performance," he explains.

"Calves that have been properly vaccinated and weaned before entering the feedlot generally cope much better with transport and handling stress. They settle faster, remain healthier and convert feed more efficiently."

Healthy calves are less likely to become ill after arrival, reducing losses and allowing them to maintain consistent growth rates. For farmers, this often translates into stronger demand and better marketability.



Source: Sharon Co Images / Unsplash

QUALITY #2: AGE MATTERS

Feedlots generally favour younger calves because they utilise feed more efficiently and convert it into growth more effectively. "As cattle mature, more of the energy they consume is directed towards maintenance rather than growth," says Liebenberg.

"Younger calves are generally much more efficient at converting feed into muscle, which is why age is an important consideration."

This does not mean farmers should market calves too early, but rather that timing and growth management play an important role in producing a desirable weaner.



Source: Shaked Yizhak / Unsplash



QUALITY #3: THE BALANCE OF WEIGHT AND CONDITION

Weight is one of the first characteristics buyers evaluate, but heavier is not always better. "There is an important difference between a calf that is heavy because it has grown well and one that is carrying excessive fat," says Liebenberg. "Over-conditioned calves require more energy simply to maintain themselves, leaving less energy available for growth."

Excessively fat calves often perform less efficiently in the feedlot, while those that are healthy, well-grown and in moderate condition typically deliver better results.

QUALITY #4: GOOD GENETICS AND FRAME

Genetics play a significant role in determining how a calf grows and develops. Factors such as frame size, muscularity and maturity patterns all influence performance.

"Medium- to large-frame animals generally offer excellent growth potential," says Liebenberg. "They tend to grow efficiently, produce heavier carcasses and maintain strong performance throughout the feeding period."

Breed selection also contributes to performance. Different breeds offer different strengths, whether in growth rate, feed efficiency or carcass characteristics.

"Crossbred calves often outperform the average of their parent breeds," he explains. "When managed correctly, they can offer an excellent balance between growth, muscle development and efficiency."

Liebenberg adds that Beefmaster Group works with all types of cattle, regardless of breed.



Source: Jed Owen / Unsplash



Source: Coco / Unsplash

THE ROLE OF GENDER IN DETERMINING THE IDEAL WEANER

Gender also influences feedlot performance. Male calves generally achieve higher daily weight gains and convert feed more efficiently than female calves.

However, Liebenberg notes that female calves can still perform well under the right circumstances and often spend fewer days in the feedlot before reaching market specifications.

"The key is understanding how different classes of animals perform and ensuring they are marketed appropriately," he says.

PRODUCING CALVES THAT BUYERS WANT

Ultimately, feedlots are looking for animals that can convert feed into high-quality beef efficiently and consistently. Farmers who focus on calf health, sound genetics, good maternal performance and effective grazing management are more likely to produce calves that meet these requirements.

"But it all starts with the cow. The mother must be able to raise a healthy calf on natural grazing, and that calf must then be able to convert feed into meat quickly and efficiently. When both of those objectives are achieved, everybody in the value chain benefits," concludes Liebenberg.



Source: Erwin Bosman / Unsplash

Lime Your Fields, Get Better Yields

FOR EACH TON OF
FERTILISER,
THE SOIL NEEDS
ONE TON OF LIME

Also available:
Stock Feed lime & Stock Feed Grit



UNITURTLE
INDUSTRIES

Cell: 0974 990928 / 0973 142990
Email: infolime@uniturtle.com

Chivuna, Mazabuka
Tel: 03 233069

Plot 12913, Mumbwa Road
Tel: 286057 / 286064 / 286258



TIPS FOR ESSEier CLEARING

Customs Documentation

- Full Set of Docs(Invoice, Manifest, Import/Export Docs
- Freight Charges

Compliance

- Regulationns
- Permits & License Requirements
- Correct Tariffs

Tracking & Communication

- WhatsApp Updates
- Client Support
- Dispatch Notices

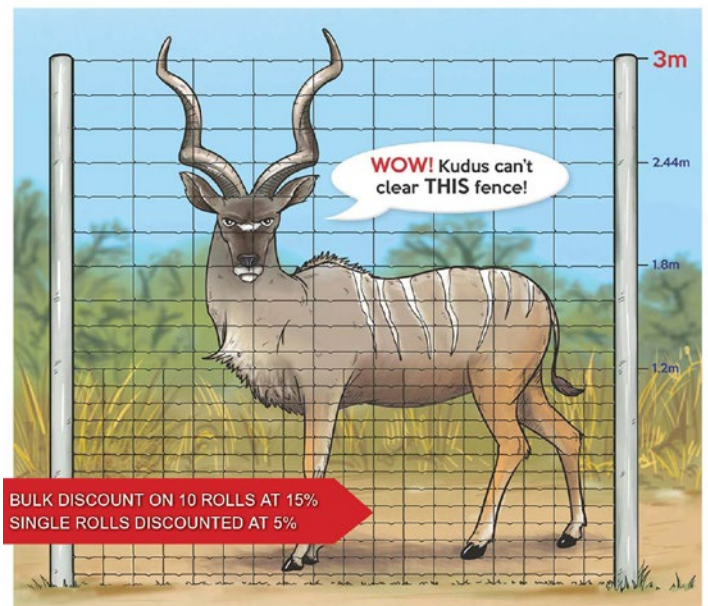
+260 971 231 049

enquiries@esseclearing.com

For more information, visit:
www.esseclearing.com



KUDOS FOR BONNOX'S
NEW 3METRE FENCE.



BULK DISCOUNT ON 10 ROLLS AT 15%
SINGLE ROLLS DISCOUNTED AT 5%

AVOID POOR IMITATIONS AND BUY DIRECTLY FROM THE ONLY BONNOX
FACTORY, SITUATED IN SUNDERLAND RIDGE, CENTURION
ONLY A BONNOX INVOICE SERVES AS A CERTIFICATE OF AUTHENTICITY.

zane@bonnox.co.za • gerda@bonnox.co.za • linda@bonnox.co.za
www.bonnox.co.za • 012 666 8717



MADE WITH CARE • SOLD WITH PRIDE

NAMFEEDS

NATIONAL MILLING STOCK FEED

Zambia's Pride Nationwide



FROM DAY ONE TO MARKET READY

Complete nutrition for every stage of broiler development.



BROILER STARTER

Healthy beginnings
for strong chicks.



BROILER GROWER

Supports rapid growth
and development.



BROILER FINISHER

Designed for efficient
finishing and tender meat.



Balanced nutrition
for healthy growth
and performance.

Supports immunity
and overall
flock health.

Designed for
efficient production
and profitability.



LSK- MALAMBO ROAD
LSK H.O- Plot sub v / farm
403a Lilayi road, Lilayi
P.O Box 31980 Lusaka

+ 260 967 640 126
+260 961 580 785
feedsales@nmc.co.zm