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# Poultry Bulletin

ISSUE 4 OCTOBER / NOVEMBER 2021



THE FEED ISSUE

OFFICIAL MAGAZINE OF THE SOUTH AFRICAN POULTRY ASSOCIATION

ARE WE OVER BIRD FLU YET? THE LATEST REPORTS HAVE THE UPDATE

## A QUESTION OF TASTE

**CHICKEN WINGS:  
ARE THEY FALLING  
OUT OF FLAVOUR?**

**How  
Chicken  
Korma got  
its name**

# THE GRAIN CHAIN

*Feed prices: 'fowl' play or fair value... why costs rise and rise*

**PLUS!**

Poultry insights from  
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### Keeping a few chickens for household eggs

and the occasional Sunday roast is very rewarding and not particularly difficult, but as anyone who has taken steps to scale up a backyard operation will tell you, commercial poultry production is fraught with challenges. And while chicken arguably offers the easiest entry point to farming of any livestock, "easy" is relative, and there are many boxes to tick before you have a sustainable business.

Feed makes up as much as 75% of a poultry farm's input costs and securing the best feed source at the best price is always a priority – an issue that new farmers come up against without fail. We hear the questions often: why is feed so expensive? Do the big producers intentionally keep feed prices high to prevent us competing with them? How can a small farmer like me cut feed costs – can I not grow my own maize?

In this issue we followed the grain value chain to find answers to these questions and to unpack the complicated issues around feed. We investigate the link between international grain crops and South African chicken-feed prices (pages 10 and 28), share tips to minimise wastage (p31), and hear how small-scale farmers navigate the feed-cost challenges (p34).

We also collected inside info from the animal-feed industry (p62), tips from farmers for sourcing and storing their precious feed (p60), and insight from an animal nutritionist about the complexities of feed composition (p58). Maize also stars in our recipe for the best mielie muffins you'll ever taste (p64).

We hope the stories in these pages give you some real food for thought.

**Melinda**

editor@poultrybulletin.co.za

🐦 @melshaw001

# Contents



54

12



8



28



46

## 5 A time of great challenge

## 6 Letters to the editor

## 8 News in brief

Latest industry news

## 10 Economist's view

Mike Schussler on sky-high feed prices

## 12 The wings of change

How changing consumer tastes may affect the market

## 18 Members' noticeboard

All the latest industry intelligence summarised

## 28 Poultry feed: "fowl" play or fair value?

Following the grain chain to understand feed prices

## 38 Poultry success in Rwanda

A case study for adapting to one's market

## 46 Humour

Just how did Chicken Korma get its name?

## 52 On the wires

Poultry developments on the global front

## 54 A foothold in the desert

Insights from our neighbours in Namibia

## 58 'Can I make my own feed?'

A readers asks; an expert provides the answers

## 60 Hacks & Tips

Farmers on storing and sourcing feed

## 62 Feed manufacturers weigh in

AFMA's role in keeping our poultry fed

## 64 Recipe

Mielie muffins

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# Poultry Bulletin

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# A time of great challenge

## Dear members

The past few months have taken a toll on our industry, as the riots in KZN added to the cumulative impact of HPAI and COVID-19. We've all felt the effects of reduced demand due to lockdowns, and then unrest and looting caused significant financial losses and triggered a second wave of HPAI in KZN after the disease was well contained. We know the recovery from the last avian flu outbreak took three years.

We are an industry in distress. And while I believe producers and the Department of Agriculture Land Reform and Rural Development (DALRRD) managed these challenges incredibly well under trying circumstances, some truths have to be faced. Firstly, this isn't only about preserving the poultry industry. Food security itself is at risk, and SA faces a troubling future unless all of us in the food value chain, government and regulatory bodies included, work together.

Secondly, we saw that proper security for production facilities, distribution centres and shops is essential – without efficient police protection our food-supply chain was brought to a standstill within a day, with an immediate impact on food security and the economy. Imagine the effect should this happen for a prolonged period.

Thirdly, we learnt that HPAI can only be efficiently controlled if government and industry work together closely. The culling policy that calls for the destruction



of both diseased and healthy but at-risk birds is essential to eradicate the disease. However, hearing that government will not be compensating farmers could lead to producers not reporting – when losing a flock means going out of business, resistance to preventive culling is understandable. In addition, complying with the animal diseases and environmental acts is a logistical nightmare that prevents efficient disease management.

Therefore as an industry we have offered our resources to DALRRD to assist with the logistics of site visits and decision-making about unavoidable culling. We welcome Minister Thoko Didiza's announcement of a very capable task team to assist in managing all the controlled diseases including HPAI, foot-and-mouth disease and African swine flu.

Our commitment to take all steps necessary to preserve the industry in this time hasn't stopped the master plan rollout, and 80% of the R1.5 billion pledged investment has been realised. A total of 76 new chicken houses were built on 13 farms for black contract growers.

SAPA is continually expanding its network of SMME emerging-farmer members, with 200 and counting at the time of writing. We regularly share advice and industry information with over 860 emerging farmers; and 1 000-plus farmers have benefited from our training programmes.

However, a world-class industry was compromised and we are at a crossroads after the recent events. We need a significant review to carve out a way forward, requiring a collaborative effort from all of us – producers, importers, exporters, industry bodies and government.

Food security is an issue for all of us. We have to stand together to weather this storm. 🇿🇦

**Izaak Breitenbach**  
GM, Broiler Organisation

***'Without efficient police protection our food-supply chain was brought to a standstill within a day'***

### SA'S POULTRY REALITY



**Broiler chick placements:**  
23.5m/week down to 21.2m/week  
**Production slaughter numbers:**  
22.1m birds down to 21.2m per week  
**Production:** down by 6 000 ton/month  
**Demand:** down by 20 000 ton/month





# LETTERS

Words of support and thanks, plus a farmer's insights from a valuable seminar



## Food Safety Summit was a valuable reminder

The April/May edition of *Poultry Bulletin* ran a competition with a ticket to attend the 2021 Food Safety Summit as prize. I had the privilege of winning that ticket.

The summit focused on themes that were very relevant, given the realities of the global pandemic and the lessons we have learnt during these times.

The event was jam-packed with high-powered local and international speakers. As I am in the hatchery business, I attended the talks I believed would help me most. I attended seven sessions overall – three on the first day and four on the second.

The topics that were covered included, among others, the difference between hazards and risks; product testing and how to get certified by certain food bodies; food-safety management systems and

international food standards.

Some of the talks got quite technical, for instance the deep dive into biological hazards, which I found pretty interesting.

Also interesting were the sessions on foodborne pathogens. Of particular relevance was the discussion on *Campylobacter*, a bacterium found in the intestinal tracts of broilers, which can also affect humans. Once a small issue, it is now a notifiable disease in Ireland where cases spiked in 2018.

I was fascinated by the session on food fraud. Who knew that food suppliers intentionally deceive customers regarding the food or beverages they are buying? We received valuable information on the dangers of food fraud and how to spot it.

Another important topic was water reuse in food manufacturing, and why it is so important to make sure that the recycled water is properly cleaned and

fit for purpose.

The summit was highly insightful. The importance of the end-use consumer was constantly emphasised. When you are involved in a growing business, it is very easy to get caught up in trying to run as efficiently as possible and maximising your profits. As someone in the food business, I found the summit to be a great reminder that you cannot compromise on the quality of the food you produce and, consequently, the safety of all your consumers, no matter how rich or poor they might be.

**Clive Tigere,**

Director, KC Hatchery

## YOUR VIEWS COUNT

Send us an email with your insights, questions, comments or even a photograph of your favourite chicken, addressed to [editor@poultrybulletin.co.za](mailto:editor@poultrybulletin.co.za). In keeping with the feed theme, the sender of the best contribution will win the opportunity to pick the brain of animal nutritionist **Dr Foch-Henri de Witt** of the University of the Free State on poultry feed issues in a one-on-one call or or Teams/Zoom conversation.



We want to hear from you. Send your letter to  
editor@poultrybulletin.co.za marked "Letter to the editor"



### Thank you for the eggs!

We are a nonprofit organisation called Belaclaas; we have four members who are all very active in the business. During lockdown we realised that there were so many people out there that needed assistance. We have been operating for over a year now and it has become such an uplifting experience. We are blessed that we are able to assist the needy twice a week.

On Tuesdays we prepare food for around 200 children and elderly people at Sam Ntuli squatter camp in Thokoza. On Thursdays we take

meals for around 400 children and 100 homeless adults in the Thokoza Empilisweni informal settlement.

We were blessed to receive some of the liquid eggs donated by a farmer to Chefs with Compassion and we made it into fried rice with vegetables, so that the children we feed can have a meal that is nutritious and healthy.

We appreciate everything we receive and are forever grateful.

**Catherine Mtshidiso Gumbi**

Belacaas, via  
Chefs with Compassion

### Insta-worthy chickens, please!

Sassy hens, cocky roosters or sweet chicks... send a photo of your favourite chicken to editor@poultrybulletin.co.za and we might make it famous in print! Noma Sibanda of Pretoria North sent in this pic: "She's almost four weeks old and my favourite right now, the mean mug!" Strike a pose...



### Support for poultry industry after attacks

As suppliers of specialist equipment and technical services to the poultry industry, Pas Reform was distressed about the attacks on poultry farms amid the violent wave of economic sabotage that engulfed our country recently. We are compelled to pledge our support to our clients and friends in this industry which is so key to food security in South Africa.

It was heartbreaking to hear the stories about looting of shops, but when it comes to the theft of poultry livestock, destruction of essential infrastructure and threats of arson to key production facilities we cannot sit back as this affects all of us in the supply chain.

We have training programmes for upcoming farmers and hatchery personnel who all have a common goal of helping to feed a nation, and we can only imagine the devastation they feel today, as these acts of terrorism destroy the potential for people to start and grow successful businesses.

The reprehensible actions of those who tried to bring the country to its knees by stealing not only goods but also jobs and livelihoods were a big wake-up call for all of us. We need to protect jobs and production security. Our hatchery business is crucial for the production of poultry meat and eggs, and keeping food on the shelves across SA. We hope that the prosecution of those behind these events will continue to ensure that this sabotage is never repeated.

**Jankees Sligcher & Adriaen Sligcher,**  
business development director Africa  
and sales director,  
Pas Reform Southern African Region





# NEWS IN BRIEF

What is everyone talking about right now? Rounding up the latest poultry news

Compiled by **Charmain Lines**


## Third time (still) lucky



**The Agricultural Business Chamber** (Agbiz) predicts that the upcoming summer will be another good one in South Africa. This will be the third consecutive season of abundant rains and high grain yields – which should also be positive news for the chicken industry.

Agbiz chief economist Wandile Sihlobo says SA has not had three successive favourable agricultural seasons in a long time. “The typical cycles are two seasons of large agricultural output followed by a notable decline on the back of a drought,” he explains.

Following the ample rainfall in the 2019/20 and 2020/21 production seasons, South Africa’s maize yields surpassed 15 million tons for the first time. In 2019/20 the national harvest amounted to 15.3 million tons and in 2020/21 it was 16.4 million tons.

“The rainy weather outlook presents a conducive environment for potentially higher crop yields in the 2021/22 season,” says Sihlobo. “While this is positive for the agricultural sector, higher international commodity prices will keep input costs elevated for the livestock and poultry sector.” 

*For more on the dynamics of feed prices, read “The big feed issue” on p28*

### CHICK OF THE MONTH




There are more than 500 chicken breeds – and countless varieties – in the world. Here, in our new regular column, we will showcase the most beautiful, bizarre, interesting and unusual chickens we can find.

Our first chick of the month is the bewitching Goth of the chicken world. Ayam Cemani is an inky black chicken breed indigenous to Indonesia and is known, among other names, as the “Lamborghini of poultry”.

Not only are these chickens black on the outside, from their combs and eyes to their feet, but their meat, bones, organs and

muscles are pitch-black too. The only exceptions are their blood and eggs. Zoologists believe that the Cemani breed could be “most deeply pigmented creature” found in nature.

These black chickens are rare and scarce: a day-old-chick would set you back \$199 in America, and people tend to keep them as prized pets. However, in Java, the Indonesian island where the breed first emerged, the Cemani is believed to be a magical creature with immense healing powers. 





## Industry moves



**Gary Arnold**, currently MD of agriculture at Astral, has been appointed as the company's chief operating officer (COO) as of 1 October 2021.

The position was created to optimise expansion opportunities and continuous improvement initiatives, while allocating capital and human resources across all Astral divisions.

Arnold brings 25 years of Astral experience to his new position. 📷

## Tax relief after donations

**SAPA members who contributed** chicken and eggs to the Mandela Day initiative of NGO Chefs with Compassion earlier this year, have been issued with 18A tax certificates to the value of R235 548, reports CwC general manager Marion Tanzer. "Thanks again to Aldabri Agricultural, Bush Valley Chickens, Beckley Brothers, Astral Foods, Quantum Foods, RCL Foods, Country Bird Holdings, and KZNPI – the meat and eggs you donated made a significant contribution to fighting hunger in South Africa!" The NGO has an ongoing feeding programme that cooks food for destitute communities, and protein is generally in short supply. 📷

Any producer who would like to donate eggs or chicken can contact Tanzer on [marion.tanzer@cw.org.za](mailto:marion.tanzer@cw.org.za) or 083 786 1321.

## Learn more, produce better

During the last quarter of 2021, a number of agricultural conferences and events are taking place that could be of value to poultry farmers and producers.



18 & 19 October

### **AFMA Symposium: Embracing the new normal**

Delegates will learn about scientific developments in the continuous focus on producing feed and food as sustainably as possible, especially in light of the global shift to producing meat without antibiotic growth promoters (AGPs).

For more information and to register for this virtual event, visit [www.afmasymposium.co.za/](http://www.afmasymposium.co.za/) or scan the QR code with your smartphone.



25 & 26 November

### **The Regenerative Agriculture Conference 2021**

This virtual event will bring together a cross section of food-industry stakeholders, including regenerative agriculture practitioners, researchers, government agencies and the investment sector, with the specific goal of progressing a food-secure future for Africa.

For more on the conference, call 073 946 9796 or email [ryan@empiretraining.co.za](mailto:ryan@empiretraining.co.za) or scan the QR code with your smartphone.



30 November – 2 December

### **African Agri Investment Indaba**

This event is the global meeting place for agri-food investment in Africa. It brings together over 700 key stakeholders, ranging from government officials, financiers and investors, to project owners, project developers, commercial farmers and the agro and food processing industry, to discuss trends that will likely influence food and agribusiness economics over the next decade in Africa.

The indaba will be held in London, UK.

For more information, visit [www.agri-indaba.com/](http://www.agri-indaba.com/) or scan the QR code with your smartphone.



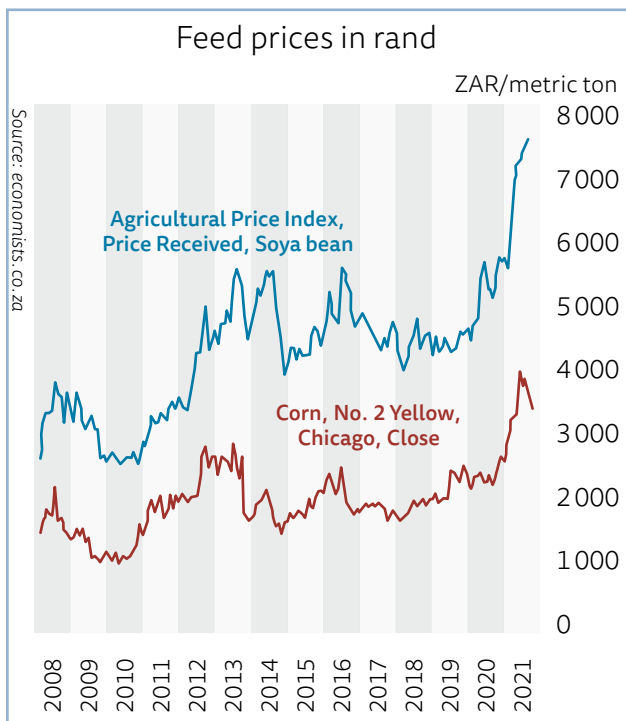
# Feed prices at all-time highs

By **Mike Schussler**

**In bad news for poultry farmers and consumers alike,** food inflation is on the rise as feed grains reached an eight-year high in US dollar terms. The trend is the same for soya and yellow maize. In rand terms maize and soya beans were at all-time highs in May, although prices declined with a few percent since then (see graph).

The increase in grain prices in general is due to lower US and EU production caused by changing weather patterns, with a cold start to spring in northern Europe and then, depending on the country, either too much rain or a dry spell. Moreover, the US feed-stock levels are at six-year lows while there is also a strong likelihood of a La Niña.

Add the highest transport costs for dry bulk in a decade because of continued lockdown-related global supply disruption, and the South African price trends have just followed despite the fact that there is a huge local surplus.



***'Feed-stock levels in the United States are at six-year lows, and transport costs are the highest they've been in a decade due to lockdowns'***

Feed normally makes up a large share of the price of chicken or eggs. It is by far the largest cost item and when feed grains show a 40%-plus increase on a year ago the impact on retail poultry prices can only be significant.

The animal-feed grain index in the US is up 88% on a year ago in rand terms. Soya bean is up 42%, while yellow maize is up 44%. This means that without increases in prices for consumers, the margin will be squeezed. The latest fresh chicken prices (July) however were still lower than last July, although frozen chicken prices showed an increase of nearly 14%. Producers will need to be careful about increasing prices as consumers remain under pressure.

Egg prices are also still between 3% and 9% lower than last year at the same time. This will probably not last long as producer margins are under pressure.

If feed-grain prices remain close to the current near-record levels one can expect that the price of chicken and eggs will increase probably around the 15% mark in the next few months, even in South Africa.

In the slightly longer term farmers can look forward to grain prices falling once the US stock level improves and production outputs improve as better weather is expected in the major markets that create most of the price trend.

*Mike Schussler is an award-winning economist and the owner of economists.co.za. Contact him on [mike@economists.co.za](mailto:mike@economists.co.za)*

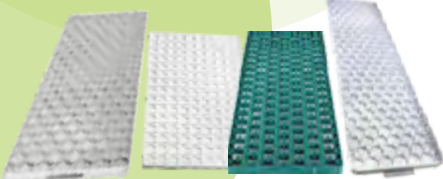
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# THE WINGS OF CHANGE

Something interesting is happening in America's fast-food space, and chicken wings have a story to tell. Are consumer tastes changing, and what does it mean for South African producers and QSRs?

**Charmain Lines** investigates



## CONSUMER PREFERENCES

**The average American** eats 24 chicken wings a month, amounting to a staggering 17 600 over an average adult lifetime, according to a study done in 2017. It would be safe to assume that the number has not changed much in four years, given that 2% more chicken wings were eaten during America's premier sporting event – the Super Bowl weekend – in 2021 than in 2020.

What has changed, however, is that demand for chicken wings in the US currently far outstrips supply.

The mismatch between supply and demand is driving up prices and eating

continues to grow and we continue to automate and staff our operations to get the dark meat taken off the bone, whether that be in a fresh form or in a further-processed form," said Tyson Foods president and CEO Donnie King.

This development was foretold in an article published in 2019, in which a market analyst pointed out that boneless thigh meat was catching up to breast meat, both in production volumes and price. In 2018, the annual average price for boneless thigh meat was, for the first time ever, higher than that of breast meat. Over the last few years, production of boneless



into the profit margins of quick-service restaurants (QSRs). In a bid to address the problem, at least two QSR chains have introduced chicken thighs on their menus.

The new meals are not merely a stop-gap measure, however. They are introduced as demand for and production of deboned thighs are increasing, and dark meat moves into direct competition with breast meat.

This was borne out during a conference call hosted in August this year by US chicken producer Tyson Foods. As part of its annual results presentation, the company confirmed the sky-high demand for chicken wings, and the growing demand for boneless thigh meat. In fact, the latter is so robust that Tyson Foods is making adjustments to its processing operations.

"Dark meat in the boneless form

thigh meat more than doubled, while breast meat largely tracked overall broiler production trends.

The shift is ascribed to demographic trends in the US, with growing minority populations that prefer dark meat. While boneless breast meat has been used as an alternative to wings in the past, boneless dark meat was not previously in play. The fact that QSRs Wingstop and Golden Chick recently announced the launch of boneless-thigh products indicates the fast-food industry's recognition of an underlying and sustainable shift in consumer tastes.

Interestingly, and in contrast to the US, South Africa is a market that does not play favourites when it comes to chicken cuts. "We use every last bit of the chicken," says Phil Tozer, sales and marketing director of Country Bird Holdings (CBH).

### DID YOU KNOW?

*In China, where chickens were once considered sacred and able to predict the future because they announced daybreak, the most popular fast-food chain by far is now KFC. Oh the irony.*

Illustration and photographs: Shutterstock





## CONSUMER PREFERENCES

The Anchor Bar in Buffalo, New York, where Buffalo wings first saw the light of day



"Unlike European and American consumers, most South Africans grow up eating what would be considered by-products elsewhere. So even when people's income grows, they still eat walkie-talkies and mala, which is nutritious and delicious when prepared well, in addition to the more expensive cuts."

### The origins of US preferences

In the 1960s and 1970s, whole-chicken dinners were an American staple. That changed in the 1980s when boneless, skinless chicken breast meat became popular.

Breast meat cooked faster than a whole chicken, plus it was easier to prepare, healthier, and didn't require as much cleanup. Restaurants loved breast meat as much as housewives did: it was easy to work with and allowed them to create a variety of chicken dishes, from schnitzels and stuffed breasts, to nuggets and burger patties.



One of the most important consequences of the demand for breast meat was that the rest of the chicken fell out of favour. Wings were among the hardest hit and soon sold for next to nothing.

But being so cheap, they were a money-making opportunity waiting to be discovered. This happened in 1964 at the Anchor Bar in Buffalo, New York, when Teresa Bellissimo, whose husband owned the restaurant, first served fried chicken wings with hot sauce – and a national obsession called Buffalo wings was born, named for the town where the snack was invented.

Why do Americans love chicken wings so much when other cuts have more taste and far more meat? The American National Chicken Council puts it down to the social aspect of eating. "Wings are meant to be shared, and they come with a promise of spending time with someone — friends, family, a partner, our kids. That's something we can all understand," said

### A TIMELINE

### OF FAST FOOD

**753 BC  
– 44 BC**

Ancient Rome was the first place where ready-cooked food was for sale. People who lived in multi-story apartment blocks called *insulae* didn't have kitchens and had to buy their meals from food vendors.

**2ND  
CENTURY**

All-night noodle stands operate in China.



**MIDDLE  
AGES:  
500 AD –  
1 500 AD**

Bigger towns have street vendors that sell pies, pasties, flans, waffles, wafers, pancakes and cooked meats.

**1860**

The first fish-and-chip shop opens at Tommyfield Market in Oldham, England.





# ★ AMERICA'S LOVE AFFAIR WITH FRIED CHICKEN ★



*Left: Colonel Sanders, the famous face of KFC*

*Above: The Guatemalan chain Pollo Campero*

**In March 1930, Harland Sanders** began selling food to hungry travellers out of the service station he owned in Kentucky. From these humble beginnings grew Kentucky Fried Chicken, the world's first chicken fast-food chain restaurant. (The colonel, by the way, was not a military man. Colonel is a honorific title bestowed by the state of Kentucky on its most worthy citizens, and his fried chicken earned Sanders this title.)

But Sanders was not the first American to serve fried chicken to hungry travellers. That distinction belongs to enterprising slave women in the American South in the 1800s, where a Virginia railway town named Gordonsville became famous for the women who sold freshly golden-fried chicken to train passengers. It is worth noting that enslaved Americans were not allowed to

own horses, cattle or pigs, but these restrictions did not apply to poultry – a loophole that offered an opportunity to a whole fraternity of disenfranchised people.

As much as America has exported its brand of fried chicken, mainly through KFC, immigrants to the country have brought their traditions with them and are slowly changing the fried-chicken scene.

Pollo Campero, for instance, is a Guatemalan chain that serves adobo-seasoned fried chicken in outlets across America. Adobo is a savoury seasoning that imparts a garlic flavour and is normally used to season and/or marinate meat, chicken or fish. It is so fundamental in Latin cuisine that “adobado” means marinated and cooked in adobo sauce.

Korean chicken – twice-fried for extra crispiness and often covered

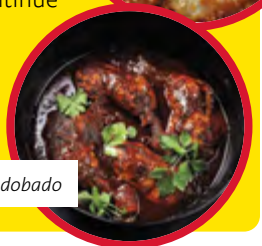
with a spicy sauce – is arguably the biggest immigrant fried-chicken influence, as evidenced by the Bonchon chain and celebrity chef David Chang's Fuku craze. The latter are ghost kitchens – commercial kitchens optimised for food delivery – that serve mainly habanero-brined fried-chicken sandwiches.

The story doesn't end with Guatemala and South Korea, however. As people from big fried chicken-eating countries in the Caribbean, the Middle East and West Africa continue to migrate, US chicken consumption patterns will continue to change.

*Bonchon*

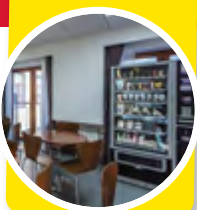


*Adobado*



**1896**

Max Sielaff invents “automats” – vending machine restaurants – in Germany.



**1902**

Joseph Horn and James Hardart open an automat in New York City, which marks the birth of fast food in the US.



**1921**

White Castle, the first hamburger chain in the US, opens.



**1930**

The first-ever restaurant franchise opens in the US.



**1948**

McDonald's opens its first store in San Bernardino, California.



**1951**

The Merriam-Webster dictionary recognises the term “fast food”.



## PREFERENCES ACROSS THE WORLD

More people around the world eat more chicken every year, but the same cuts aren't equally popular everywhere.



In Mexico around 40% of chickens are purchased live and either slaughtered at the time of purchase or by consumers themselves.

In 2012, Brazilian exports comprised 36% whole birds and 27% cuts. By 2018 this shifted to only 27% whole birds and 66% cuts.

In Mexico, 50% of poultry is purchased as whole carcasses. Consumers in the Middle East also prefer whole birds.

Prime markets for dark chicken meat are Mexico, Japan, China and Korea. Asian consumers consider white meat a cheaper and less flavourful cut.



Chicken feet are extremely popular in China.

In Europe, boneless cuts continue to gain in popularity. In 2018, EU imports of fresh or chilled boneless cuts of chicken were 25 times higher than in 2010.

Between 2010 and 2018, EU imports of prepared or preserved meat products containing 25% to 75% chicken meat rose six fold.

In South Africa, demand for coated, crumbed and other value-added products are exploding, along with loose-serve products that allow customers to buy, for instance, two chicken patties instead of a full box.

*Right: Chicken on the braai, South African style  
Below Walkie-talkies in a kota, another local delicacy*



**'Consumer preferences in South Africa do change, but at a slow rate in terms of taste. Our customers are, however, very price sensitive and that causes huge shifts in consumption patterns'**

**Izaak Breitenbach - SAPA Broiler GM**

Tom Super, vice president of communications, in a 2016 interview.

Bill Roenigk, chief economist at America's National Chicken Council, says that the Super Bowl's love affair with chicken wings grew from the rise of sports bars a few decades ago. Sports watching demands cheap snacks, and wings were both convenient and affordable. "Ribbs and pizza were the competition," explains Roenigk. "But ribs cost more money, and pizza... well, pizza tends to lose its charm if it sits on a table for too long."

Boosted with some clever marketing, including the National Chicken Council's annual Wing Report, chicken-wing consumption during the Super Bowl weekend has become an American tradition. This year, while watching the iconic annual championship game of the National Football League (NFL), Americans devoured a massive 1.42 billion chicken wings, according to the Wing Report.

In the process, the once cheap-and-cheerful wing has become the most expensive cut of chicken meat in the US. And at the moment, it is as scarce as hen's teeth.

### Is South Africa following suit?

According to Izaak Breitenbach, general manager of SAPA's Broiler Organisation, local consumer preferences do change, but at a slow rate in terms of taste. "South

## DID YOU KNOW?

*America's first widely accepted printed recipe for fried chicken appeared in 1824 in the first regional American cookbook, The Virginia House-Wife. It was written by Mary Randolph, a white woman from a slave-owning family who was a distant relative of president Thomas Jefferson.*





## CONSUMER PREFERENCES

Africans are, however, very price sensitive, which causes huge shifts in consumption pattern," says Breitenbach. "When consumers are financially stretched, they shift from expensive cuts such as wings to cheaper cuts such as thighs and ultimately to secondary products such as livers and hearts. The opposite is also true: when disposable income increases, the expensive cuts are favoured."

Feedback from local QSR groups confirms Breitenbach's analysis, indicating that South African consumers are quite fixed in their fast-food preferences from a taste and cut perspective, but that they demand value, especially in the face of the current COVID-inflicted economic hardship.

"In South Africa we have a very knowledgeable customer base," says Chantal Sombonos-Van Tonder from Chicken Licken, whose Hotwings range is the chain's bestseller. "Our customers know what they want, and are not quick to change, especially if a new product is 'foreign' to them. They are brand loyal and very specific about what they would like to eat. I do think QSRs have the ability to influence consumers, but not to a very large extent."

The Nando's marketing team reports that an increasing appeal for handheld meals, such as burgers, pitas and wraps are likely because customers can eat them on the go. Over at KFC, South Africans' love of hot, spicy food is noted, and, says chief supply chain officer Siya Ngcukana, "as a brand, we try stay on top of this trend by extending our product line in this direction with products such as our Zinger range of menu items". He adds that while preferences do change as food trends evolve, "the love for fried chicken is a constant. When it comes to our best sellers, our consumers prefer mostly wings, drumsticks and thighs."

Adding a producer's perspective, CBH's Tozer agrees that there is a huge – and growing – market for chicken wings in South Africa, and although deboned thighs are becoming more popular here too, he does not expect consumers to change their fast-food preferences. "South Africa is, above all, a chicken-on-the-bone market," he points out.

### Possible impact on trade patterns

It is exactly this bone-in preference that makes South Africa such an attractive export destination for markets whose consumers prefer boneless breast meat. However, if those consumers' tastes are changing, so too could South Africa's trade situation.

While it is certainly too early to expect a shift in chicken imports and exports, it is fair to speculate that if Americans eat more bone-in meat and less breast meat, the country will have smaller volumes of IQF portions to foist upon South Africa.

Lower prices for breast meat will also mean that producers would have to make more money off their dark-meat cuts to maintain profit margins. The price at which they can afford to export will therefore have to increase.

Should all this come to pass, South Africa's chicken-dumping problem could become less severe in light of the fact that the African Growth and Opportunity Act (AGOA) trade agreement between the US and certain African countries effectively sanctions the dumping of US chicken cuts in South Africa.

AGOA was established in 2000, but when a broader trade deal was negotiated in 2015, the South African government agreed to allow 65 000 tons of US-produced chicken cuts to enter the country every year in exchange for huge benefits to the local metals and motor industries.

It is important to note that before 2015, the US had been shown to be a dumper by South Africa, China and Mexico for selling a value-added product for less per kilogram than the source finished product, in this case a whole bird (under trade law, a whole chicken is regarded as a finished product, not raw material). Hence, in the years leading up to 2015, South Africa had imposed antidumping duties on US chicken imports – something the renegotiated AGOA deal put an end to.

A growing demand for the cuts that used to have little or no value in the US market could therefore lift the the AGOA-imposed yoke from the neck of the South African industry. It is, after all, not as if we need American chicken to enjoy American-style fast food. 🍗





# MEMBERS' NOTICEBOARD

The latest key information provided to South African Poultry Association (SAPA) members, summarised and analysed

Compiled by **Michael Acott**

## Welcome news on progress from Broiler GM

An update for the board by the general manager of the Broiler Organisation, **Izaak Breitenbach**, on developments in his division

*Izaak Breitenbach shares the latest on unfair trade and disease management*



Photographs: Visioncollective, Shutterstock

**The two big concerns** that the poultry industry is dealing with at the moment are disease management and unfair trade. There has been progress on both issues.

On disease management, there has been an important development in how the country handles the current highly pathogenic avian influenza (HPAI) outbreak and how we prepare for future ones.

An expert task team has been appointed by the Minister of Agriculture, Land Reform and Rural Development (DALRRD) to look into issues of animal biosecurity, with a special focus on foot-and-mouth disease in cattle, African swine fever in pigs and HPAI in poultry.

The task team will be looking at a public-private partnership (PPP) that will bring private-sector experts, including veterinarians, together with government officials to tackle the issues facing us. For poultry, the

important issues are tackling HPAI now and in future, port inspections of imports and health certifications for poultry exports.

SAPA is working with government on a number of issues, including seeking changes to the regulations relating to the disposal of culled birds during the current HPAI outbreak, which is still spreading at the time of writing.

This year, as was the case with the previous HPAI outbreak in 2017, a major issue for poultry farmers has been government reluctance to compensate farmers for healthy but at-risk birds that have had to be culled to prevent disease spread. SAPA has made repeated representations on this issue, and has taken legal advice which says compensation should be paid.

The issue is not closed, and SAPA is advising all farmers who have suffered losses to claim compensation (see





◀ SAPA is calling on farmers to institute claims for compensation for birds culled as a result of HPAI

"Call to claim for culled birds" on page 21).

The second issue that remains under the spotlight is unfair and illegal trade, which is damaging the poultry industry and which SAPA is pursuing relentlessly on behalf of all farmers and producers.

A big plus is that the industry now has the Poultry Industry Master Plan on its side – producers, importers and the government have all agreed to fight against unfair and illegal trade, and dumping in particular.

The master plan has brought the South African Revenue Service (SARS) into the fight, because illegal trade (wrongly classifying chicken imports or underdeclaring their value) evades the payment of duties, and the government is losing revenue.

Another aspect is round tripping, where chicken imported via South African ports but supposedly intended

for direct delivery to neighbouring countries, stays in the country without import duties being paid.

SARS is part of a task team seeking to identify and counter illegal trade, and to take action against offenders. SAPA is assisting in this regard by providing technical information, and Izaak Breitenbach has helped to train 120 SARS inspectors at our ports.

There is progress on dumping, too. Good news for the industry is that the International Trade Administration Commission (ITAC) has recommended the renewal for a further five years of antidumping duties against Germany, the Netherlands and the United Kingdom. ITAC found that these countries were likely to resume dumping if the duties were lifted.

Next on the list for renewal of duties is the United States, whose antidumping duties expire in 2022. SAPA is in the process of preparing an application to have them renewed.

In addition, SAPA's application for new antidumping duties against Brazil, Denmark, Ireland, Poland and

Spain is currently being investigated by ITAC. If the application is approved, it will mean that nine of the major poultry-exporting countries are subject to antidumping duties.

The third pillar in the fight against illegal trade is a revision of trade measures, including tariff code changes and a new entry-price system which will counter the misdeclaration and underdeclaration of poultry imports. ITAC recommendations in this regard are due to be announced in the near future.

SAPA sees welcome and steady progress on these issues, which are crucial for the industry. 🇷🇺





## Latest news on HPAI



**The current outbreak** of highly pathogenic avian influenza H5N1 in South Africa is not yet over, but a picture is emerging of its impact on the poultry industry, and some interesting comparisons are being made between the 2021 outbreak and the previous one in 2017.

In its surveillance monitoring report for August 2021, SAPA stresses that the avian flu virus is still spreading, particularly in Gauteng and KwaZulu-Natal.

"It is critical that producers remain on high alert and continue to comply with HPAI protocols. The submission of test results to SAPA is an important part of the surveillance programme," the report says.

Between April and mid-August 2021, 87 outbreaks were reported, with the commercial egg industry hardest hit.

The number of birds culled by mid-August had exceeded 2.9 million, according to the survey. An estimated 0.8% of broiler industry birds (772 882) and 5.9% of egg industry birds (2 136 974) have been culled since April 2021. The egg industry in the Western Cape has suffered the greatest losses, with an estimated 22.5% of their layers affected by the outbreak.

During the first seven months of the HPAI H5N8 outbreak in 2017, 120 cases were reported over 29 weeks. By comparison, in the current outbreak of 25 weeks' duration to mid-August, there were only 87 confirmed outbreaks.

There are also notable differences in the types of birds affected by the virus. In 2017, most cases were in ostriches (31.7%), followed by chickens (23.3%), with wild birds down at 20%. This year, the majority of cases are in chickens (42.5%), followed by wild birds (37.9%) and backyard birds (10.3%). Ostriches have made up only 5.7% of cases.

In both outbreaks, the Western Cape has been the province most severely impacted, although its number of cases has dropped from 87 in 2017 to 43 this year to date. 📍



Comparison of cases according to province

Source: SAPA

Province	2017	%	2021	%
E. Cape	3	2.5	7	8.0
Free State	2	1.7	3	3.4
Gauteng	14	11.7	19	21.8
KwaZulu-Natal	1	0.8	9	10.3
Limpopo	0	0.0	1	1.1
Mpumalanga	11	9.2	1	1.1
North West	2	1.7	4	4.6
N. Cape	0	0.0	0	0.0
W. Cape	87	72.5	43	49.4
<b>Total</b>	<b>120</b>	<b>100.0</b>	<b>87</b>	<b>100.0</b>
<b>Period (weeks)</b>	<b>29</b>		<b>25</b>	





# Call to claim for culled chickens



**If you have had to cull chickens because of HPAI,** SAPA urges you to claim compensation from the Department of Agriculture, Land Reform and Rural Development (DALRRD).

Do not be put off by reports that the government will not pay compensation for healthy birds culled. SAPA is in contact with the Department in an effort to bring about a change in attitude. If every farmer who has had to cull chickens claims compensation, it will demonstrate the gravity of the situation and strengthen our case.

We have a legal opinion that says that compensation must be paid for both diseased birds and healthy in-contact birds culled on a farm. We are also advised that when at-risk birds are culled because of the farm's proximity to an infected farm, compensation may be due if the cull is ordered by a state veterinarian.

Claims in terms of Section 21 of the Animal Health Act of 2002 must be submitted to the Director of Animal Health, Dr Mpho Maja, at [mpho.maja@daff.gov.za](mailto:mpho.maja@daff.gov.za).

There is no specific format for the claim – simply provide the number of birds culled, their value, the date or dates that this happened, the reason for the cull and if possible a copy of the state veterinarian certificate ordering the cull.

You are requested to copy SAPA on your claim by cc-ing [christopher@sapoultry.co.za](mailto:christopher@sapoultry.co.za) on the email.

Farmers' livelihoods are at stake, and SAPA is working hard on your behalf to secure a favourable outcome. 📧



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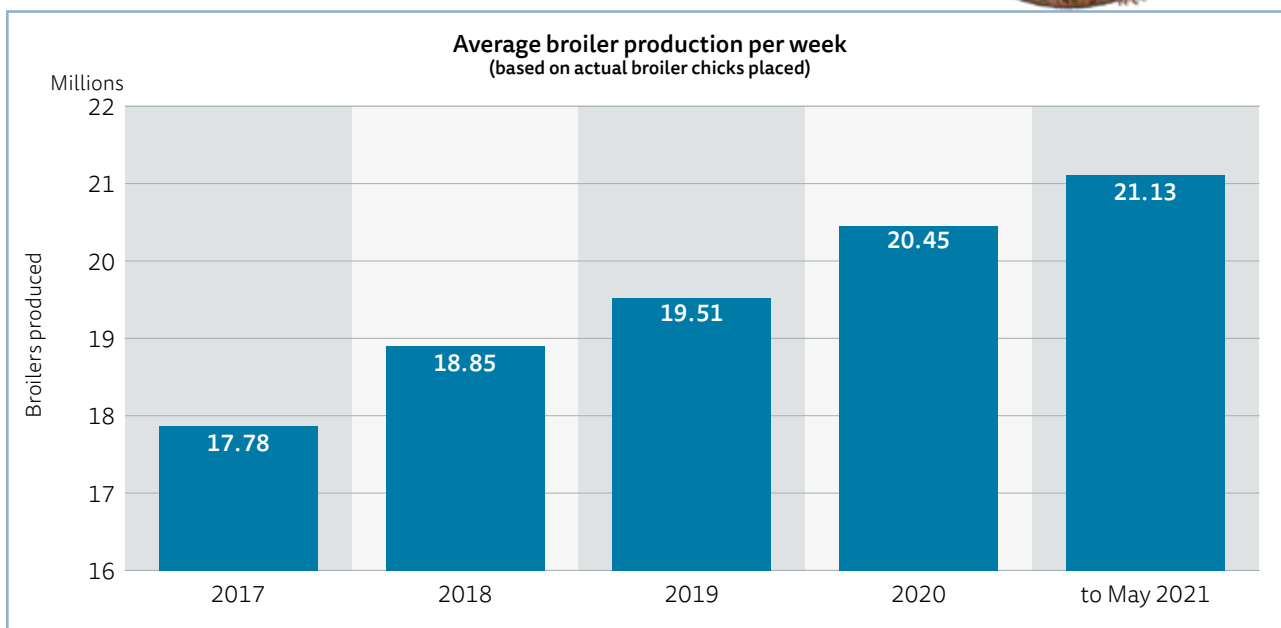
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# Broiler figures looking good



▲ Average weekly production per annum  
Source: SAPA

**Broiler production volumes** and producer prices looked very good for the first five months of 2021, particularly when compared with April and May 2020, when COVID-19 restrictions suppressed both prices and production.

The first five months of 2021 presented a positive outlook as production grew by an average of 5.6% when compared to the same period in 2020, with year-on-year price changes averaging a 9.5% increase.

There has been a steady increase in production over the past five years (see graph). Average production has

risen from 17.78 million birds per week in 2017 to 20.45 million birds per week in 2020. For the first five months of 2021, this has risen again to an average of 21.13 million birds per week.

On average, 20.20 million broilers were produced per week in May 2021. This was 1.1 million fewer birds (-5.1%) than the previous month and 359 800 birds (+1.8%) more than the same month of the previous year. In total 89.44 million broilers were produced for slaughter in May.

Producer prices dropped slightly in May, compared to the previous month, averaging R25.47 per kg. However, compared to May 2020, when prices were very low because of COVID-19 lockdowns, the monthly

broiler producer price increased by 17.4 % (+ R3.78).

Producer prices were significantly up in all categories compared to a year ago. The average prices were: frozen broilers R24.38/kg (up 18.8% on 2020), IQF mixed portions R25.11/kg (up 10.4% on 2020) and fresh broilers R33.36/kg (up 5.7% on the previous year). Frozen meat made up 87.8% of sales in May, and fresh meat 12.2% – similar to the ratios in 2019 and 2020.

Import volumes remain significant. In 2020 poultry imports equated to 26.1% of South Africa's annual production and 21.1% of total consumption. In the five months to May 2021, imports equated to 22.9% of annual production and 18.9% of total consumption. 📊



# Renewed egg levy proposed

**On behalf of the Egg Organisation**, the SA Poultry Association (SAPA) has applied for a continuation of the statutory egg levy. The levy funds Egg Organisation activities such as empowerment and development of black emerging layer producers, consumer education to promote egg sales, research and development, generation of industry information and training, producer biosecurity education and veterinary guidance, and poultry disease-management assistance.

The Egg Organisation has proposed a levy of 0.018 cents (excluding VAT) per dozen eggs. It will apply to table eggs and egg products sold to the trade. The levy will remain the same until 2025, with an option to review in the second year. It is expected to produce income ranging from R8.7 million to R9.7 million.



While agricultural levies of up to 5% are allowed by law, the proposed levy will be only 0.14% of the calculated guideline price of eggs.

After reviewing comments, the National Agricultural Marketing Council (NAMC) will send a recommendation to the Minister of Agriculture, Land Reform and Rural Development. An outcome is expected by April 2022. 📄



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# 'AI-free' EU imports loom

*Imports from the US are up 60% on last July*



▲ As bird-flu related bans that keep EU chicken out of the SA market are lifted, be prepared for a renewed import onslaught

**The threat of aggressive increases** in frozen poultry imports from Brazil and the European Union is looming once again.

Poultry imports have been declining steadily since the record imports year of 2018. This has been particularly noticeable in 2020 and 2021, when the economic impact of the coronavirus pandemic affected global supply chains and reduced demand for chicken.

Now there are signs that the tide may be about to turn. Imports from Brazil have been increasing steadily and for the first seven months of this

year they are the highest since 2018.

In addition, the bird flu bans that have kept major European producers out of the South African market for the past year may be about to end. For the past few months, Spain has been the only EU country licensed to export poultry to South Africa.

SAPA's imports report for July 2021 noted that the United Kingdom and five EU countries – Denmark, the Netherlands, Hungary, France and Belgium – have declared themselves free of avian influenza, and Germany and Poland may do the same.

If that happens, EU countries will be looking once again at the South African market to dump their surplus tons of frozen bone-in chicken portions. However, fresh avian-flu

outbreaks in a number of EU countries may keep the bans in place for a while yet.

Even though imports totals remain low, SAPA has noted continuing chicken dumping from Brazil and EU countries. It has just secured renewed antidumping duties against three of those that are looking to lift bird-flu bans – Germany, the Netherlands and the UK. In addition, it is applying for new antidumping duties against Brazil, Denmark, Ireland, Spain and Poland.

SAPA will soon be applying to renew antidumping duties against the United States, another source of rising poultry imports. In July, imports from the US were a huge 59.4% higher than July 2020. 📊



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# Allied membership: making the circle bigger

As members of SAPA, producers gain access to valuable information, networks and support, and now these benefits are also available to partners who supply to the broader poultry industry.

To qualify as an allied member you have to be a direct or indirect supplier to the broiler- and egg-producing and -processing industries in South Africa.

Whether you are a manufacturer or provider of feed, chemicals, specialist equipment, packaging or animal-health and nutrition solutions;

offer business or financing solutions to farmers and food processors; or whether you are a retailer that stocks poultry products, a grain-industry body or a cull trader – an allied membership of SAPA will bring your business within arm's length of your poultry-industry clients. New allied members recently welcomed by SAPA include Woolworths, Afgri Animal Feeds, Chemuniqué Pty Ltd, Pas Reform South Africa, First National Bank, Standard Bank Agribusiness and Plasson SA. 📄



## How do I become an allied member?

- The cost to enrol as an allied member is R2 000/month excluding VAT or R24 000/year excluding VAT for 2021 and 2022.
- Please contact Miems Venter on email [venterm@sapoultry.co.za](mailto:venterm@sapoultry.co.za), phone 011 795 9920 or fax 011 795 2590 to request an application form and to obtain bank details for payment.

## What you get

- As an allied member you get to have a say in the decisions taken within the industry, by gaining voting rights in line with SAPA's constitution.
- You get free access to all invaluable statistics reports commissioned and compiled by SAPA, which provides producers with inside information about the industry.
- You gain recognition as an accredited supplier to the poultry industry, with the inclusion of your business on the list published on the SAPA website and supplied to producers.
- Allied members enjoy access to stands at the annual SAPA congress, when that resumes in a post-COVID world.
- Your bimonthly printed issue of *Poultry Bulletin* will be yours free of charge, and you get preferential access to advertising in the magazine.

# Regular membership

**All producers of broilers** or eggs in South Africa can apply for regular membership of SAPA, and so ensure their voice in the broader poultry industry. Membership fees for ordinary members are R405/year excluding VAT, plus an additional fee based on slaughter volumes for broilers or a statutory levy for eggs. For more info, visit [www.sapoultry.co.za](http://www.sapoultry.co.za) or email [reception@sapoultry.co.za](mailto:reception@sapoultry.co.za) with any queries. 



## Steps to become a member:

1. Request the official application form by calling 011 795 9920 or emailing [reception@sapoultry.co.za](mailto:reception@sapoultry.co.za). Return the completed form as stipulated.
2. The Egg or Broiler Board will evaluate your application, which will then be ratified by the SAPA Board. The board reserves the right to accept or reject any application at its discretion.
3. Once your application is approved, your annual membership fee will be payable.

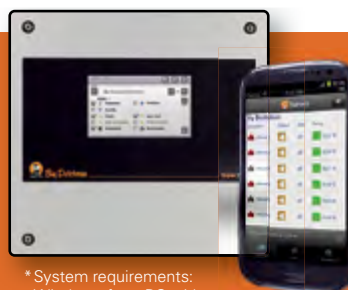
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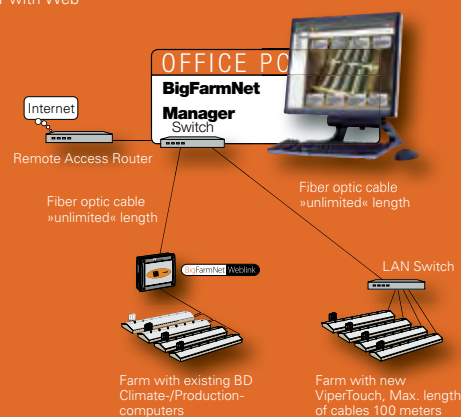
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**POULTRY  
FEED:  
'FOWL'  
PLAY OR  
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VALUE?**

Despite many challenges, South Africa's poultry value chain remains the single biggest contributor to the country's agricultural economy. However, for new entrants to the industry the cost of feed is often a barrier to a sustainable business, and there has been a perception that feed costs are kept unnecessarily high.

**Lloyd Philips** explores the grain chain



▲ Wouter de Wet, AFMA



▲ Gerhard Pretorius, Astral

**South Africa's modern animal-feed industry** produces around 12 million tons of products every year and over a third of these, around 4,67 million tons of registered and custom feed mixes, are aimed at poultry.

Not only is the poultry sector the largest consumer of manufactured animal feeds in the country, but feed makes up as much as 75% of a chicken farm's total production cost.

This is according to Wouter de Wet, chairman of the Animal Feeds Manufacturers Association (AFMA) and director of operations of RCL Foods' Rainbow Chicken and Epol animal-feed businesses.

"Most feed manufacturers strive to achieve the lowest cost of growing chicken or producing eggs by striking a balance between the cost of the nutrients in the feed and a bird's ability to convert these nutrients efficiently into meat or eggs," he says.

Nutritional executive Gerhard Pretorius from Astral Agriculture says that the fundamental nutrient requirements of commercially farmed poultry are energy, protein, amino acids, fibre, vitamins and minerals. These requirements become more specific when considering the bird type and level of production, and the stage of their physiological development.

Pretorius explains that the most common

## In Brief

- Various experts on South Africa's poultry-feed value chain dispute reported perceptions among some independent poultry farmers that there is a monopoly that keeps the prices of the feed they buy, unfairly high.
- The prices of both the locally produced and imported raw materials used in South Africa's manufacture of poultry feeds are influenced by a combination of domestic and international factors.
- The poultry-production benefits of even the best quality feeds available will be undermined by poor management of a diversity of factors at farm level.

# THE BIG FEED ISSUE

Photographs: Shutterstock, Ellen Mokau/Isando Farmers, Neil Weideman, Meadow Feeds

ingredients in South African poultry feed are maize as an energy source, soya oilcake and soya by-products as protein sources, and sunflower oilcake and wheaten bran as fibre sources. The birds' mineral requirements are met by the addition of limestone, monocalcium phosphate, salt, and micro-minerals. Poultry diets are also typically fortified with premixes of vitamins and trace minerals.

"Dietary ingredients used in feed formulations vary across different poultry species and producers within South Africa," says Pretorius. "Broiler diets contain high levels of protein sources while layers and broiler breeders' diets have higher dietary inclusions of fibre sources."

## Raw materials from near and far

Independent feed-industry consultant Heiko Köster of Köster Trading and Consulting points out that South Africa's poultry-feed manufacturers use both locally produced and imported raw materials.

Maize, sunflower meal, full-fat soya meal, feed lime, gluten 60, and fishmeal are locally procured. So are soya meal and wheaten bran,



▲ Heiko Köster, Köster Trading and Consulting



▲ Dr Tracy Davids, BFAP

although not in sufficient volumes, which means imports fill the shortfall.

Köster adds that some feed ingredients are only available via import, and those include vitamins, minerals, medications, growth stimulants, and amino acids.

"Imported raw materials are traded in US dollar or euro prices that must then be converted into the volatile South African rand. The costs are then further driven up by shipping and road freight, premiums that depend on international futures prices, import duties, and handling costs," he says.

Dr Tracy Davids, manager of the Bureau for Food and Agricultural Policy's (BFAP's) commodity markets and foresight division, says with South Africa trading freely in the global market, international factors affect prices of both the imported and locally produced raw materials that are typically used to manufacture poultry feed here at home.

"For instance, in a year such as this one, where the United States' feed-grain crop has been smaller than expected and China's import volumes of that crop have been very strong, we in South Africa really feel the impact. This



To minimise the effects of transport costs the most efficient model is where a feed mill is situated close to both the source of the raw material and the poultry farms that use its feed





is simply because international prices increase due to strong demand and tight supply and then South African producers of feed grains capitalise on the fact that they can sell for strong prices in the global market. This then increases our prices in South Africa, which impacts on poultry-feed prices,” explains Davids.

### South Africa's hurtful transport costs

Köster explains that largely due to high transport costs in South Africa there can be significant price differences for feed ingredients between areas where they are grown and where they are required for processing and consumption. These differences can be so substantial that it becomes financially feasible for a processor to import one or more rather than sourcing them locally.

“South Africa's coastal regions still use mainly soya meal imported from Argentina. South Africa needs about 2.19 million tons of soya beans annually but currently only produces 1.89 million tons. Transport costs for soya beans from inland to coastal regions are high; about R700 to R750 per ton,” he says.

De Wet says there are over 100 commercial animal-feed mills and manufacturers spread across South Africa, and for all of them to remain sustainable they need to reduce their

### Tips from the top:

## How to minimise wastage

**Spillage is a leading cause of waste**, according to the management and training team at the KwaZulu-Natal Poultry Institute (KZNPI). Broilers, for instance, are supposed to always have feed available, and if in-house feed is allowed to run out, there tends to be a feeding frenzy when it is replenished, causing the hungry birds to fling feed from the feeders while gorging themselves.

Poultry farmers should be cautious of giving spilled feed to their birds. Feed that is wet or mouldy may contain mycotoxins and other contaminants that can cause sickness and death among poultry. The droppings and urine of rodents can also contain pathogens that pose health risks to poultry.

The KZNPI team advises that pallets should be used to keep stored bags of feed off the floor and to allow air to flow freely around them; the bags should not be stored in direct sunlight; and the feed store should have good rodent controls. Storage bins for bulk feed should be watertight and regularly allowed to run empty and cleaned before being refilled. Farmers must order the correct feed quantities so that none of it expires before being used. The first feed that comes in must be the first feed provided to the birds.

To encourage poultry to consume feed efficiently while minimising wastage, feeders should be positioned at the correct height relative to the birds' growth. Feeders that are too low allow the birds to scratch in the feed with their feet. This can contaminate the feed with substances from the floor and flings feed around.

If other production conditions are not managed correctly, the benefits of buying even best-quality feed may not be achieved. For example, the composition and form of a feed must match the age and production stage of the poultry in a particular house, and the production environment and health status of a poultry flock should be optimal.

The KZNPI also advises all poultry farmers to keep detailed records of aspects such as their feed costs, the volumes of feed purchased and used, feed-conversion ratios to the targeted finishing weights or egg production, and returns on investment from feed costs and volumes.

### COMMON CAUSES OF FEED WASTAGE

- Incorrect conditions for storing feed
- Incorrect feeder settings
- Spillage when manually distributing feed from bags to in-house feeders
- Spillage when feeding poultry rake their beaks from side to side through their feed

## FEED PERCEPTIONS FROM PECKING LEVEL



*Small-scale farmers such as Phiwokuhele Shabangu (left) and Ellen Mokau (right) are limited to buying smaller volumes of feed, which keeps costs high*



**Phiwokuhele Shabangu** is a partner in a Bronkhorstspuit-based operation in Gauteng called MokokaShabangu Farming & Poultry (Pty) Ltd, which currently produces 2 500 broilers in a weekly rotation for mainly the informal market for live birds. MokokaShabangu buys its feed in 50kg bags on a weekly basis but is hoping to sufficiently grow its total production to make it financially feasible to start buying cheaper feed in bulk.

"Bulk feed needs silos and other infrastructure that we don't have right now. Our feeding is all done manually and is very labour-intensive, but our staff know how to minimise feed wastage," Shabangu says. "Perhaps when we eventually do have bulk feed-storage and handling infrastructure, we could form a syndicate with another poultry farm in our area to give ourselves stronger collective negotiating power when it comes to our feed purchases."

In the meantime, MokokaShabangu makes sure that its bags of feed are stored safely to avoid any types of wastage and contamination. To avoid having to throw any unused feed away,


the business also carefully synchronises its feeding volumes with the number of finished birds left in a house as live sales deplete the house over the period of about a week.

Shabangu explains that to balance stimulating her farm's broilers to consume feed for growth with allowing them important rest time, the poultry houses' lights are left on until about 8pm. In summer they will be turned on at about 4am and in winter at about 6am.

Also to minimise feed wastage and contamination, MokokaShabangu raises the height of its feeders to match the growth of its broilers.

"To save on our feed costs we are looking at what the ideal weight and feed conversion should be for getting our broilers to the size that our customers want. Getting the birds to this target weight as fast as possible means that we will need to buy less feed," says Shabangu.

"We're speaking to fellow poultry farmers and to the KwaZulu-Natal Poultry Institute for advice, but we would appreciate having poultry nutrition experts from feed manufacturers also



come to advise us on anything that can help to lower our production costs," says Shabangu.

**Ellen Mokau is operations manager** of the 29-member Isondo Farmers poultry co-operative at Hammanskraal in Gauteng. Isondo Farmers previously produced 1 000 broilers in an all-in-all-out cycle, and for mostly live sales to the informal trade. Expansion efforts are underway to soon allow for marketing 1 200 broilers every two weeks.

Mokau admits that she's had her suspicions that a monopoly in the industry might be keeping feed prices unfairly high for smaller-scale operators. However, she is also aware that strategic purchasing and efficient utilisation of her poultry co-operative's feeds are factors playing a large role in the broiler enterprise's profitability.

"We're still in the process of comparing the growth performances of our broilers on different brands of feed. We're also keeping records to help us make an informed decision on whether we should continue using a broiler finisher ration and, if yes, for how long we should use it," says Mokau.

As a qualified chemical engineer, Mokau has an astute mind for the factors that can make or break a poultry enterprise. For example, she ensures that the bags of broiler feed bought by Isondo Farmers are stored safely from rodents and wild birds, potential contaminants, and water damage.

She is also focused on minimising feed wastage in the co-operative's manual feeding processes. Isondo Farmers' members and employees have received training on this.

Mokau explains, "I would like to see poultry-feed manufacturers allowing smaller-scale farmers to buy directly from them instead of us having to go through agents who add markups. I'm trying to get smaller-scale farmers to collaborate so that we can collectively buy feed in bulk at cheaper prices.

"The manufacturers should meet us halfway by calling us all together to facilitate such an arrangement. This can help to build good relationships all round."



individual costs of production by maximising their throughput. For this they need sufficient demand from external customers and, in the case of vertically integrated poultry companies, also from their in-house farmers and their contract growers.

"Transport cost is a significant factor, not only of delivering feed to the farm but also of getting raw material to the feed mill," he explains. "The volume of raw material transported into a feed mill is very similar to the volume of finished feed transported out, which means that the most efficient model is where the feed mill is situated close to both the raw-material source and the poultry farm."

Davids is of the opinion that the best way for South Africa to reduce the costs of many of these raw materials (and therefore their final selling price) would be to expand production and consistent supply of these materials. For example, while South Africa is normally a surplus producer of maize, the same doesn't go for soya beans.

"Firstly, yields of the primary raw material must be high enough that it can be produced sustainably at export parity prices and, secondly, the processing of oilseeds, for instance, must also be super-efficient so that it can compete with the best in the world," she explains. "Also, transportation rates are high and could be reduced if rail, for instance, could be utilised viably."



*The perception that feed is more expensive when smaller-scale farmers buy it, is likely due to a combination of transport costs, the costs to bag the feed, and the markup of resellers*



## Own feed production needs capital

What about establishing your own feed-milling and blending facilities as an individual poultry farmer? Köster points out that there are several key factors that influence such a facility's cost-effectiveness and the quality of the feed it ultimately produces.

Not only do you need the expertise to effectively hedge raw-material prices on trading platforms, you'd also require a strong enough cash flow for capital infrastructure investments, raw-material purchasing costs, operational costs, and for waiting on returns on investment and sales. You also have to know and understand poultry's diverse, but specific, nutritional requirements and how to cost-effectively formulate the feeds necessary to meet these; as well as being able to consistently meet the minimum threshold volumes of a feed-manufacturing facility.

Plus, in addition to all of that, your success might depend on having expertise in the logistics

required both above and below your facility's immediate operations.

And what about the perception among some independent poultry farmers, especially those at smaller scales of production, that there is a monopoly in place which is unfairly keeping feed prices high and, as a consequence, success out of their reach? Davids and De Wet separately state that they do not believe this to be true.

Davids explains that average feed prices to South Africa's poultry producers are mid-range by international standards.

"What drives up feed costs for smaller poultry producers is not necessarily monopolistic behaviour. Remember that there are quite a few manufacturers and they need to be competitive against each other," she says.

She also points to the fact that smaller producers don't have the luxury of qualifying for bulk discounts. Most of these farmers buy their feed in bags that, on leaving a manufacturer's gate, are usually already more

***'Higher global commodity prices can counter expected lower prices in SA during a good local production year'***

# THE BIG FEED ISSUE

expensive than bulk feed, she notes. Bagged feed is often also sold via agents who add their own margins to these products.

De Wet notes that the financial results of listed feed-manufacturing companies confirm that they do not make the rich margins that illegal monopolistic behaviour would enable them to.

"South Africa's poultry-feed manufacturing sector is arguably one of the most competitive industries you will find. There's always an alternative supplier available to buy from," he says. "The perception that feed is extra expensive when the small-scale farmer buys it would be a combination of the transport costs, the additional cost to bag the feed, the markup of resellers, and then the quality of the feed. More nutrient-dense feed will be more expensive per bag but should deliver a cheaper chicken or eggs to the farmer when well managed."

## Useful contacts

### KwaZulu-Natal Poultry Institute:

064 860 0130 or email [training@kznpi.co.za](mailto:training@kznpi.co.za).

Website: [www.kznpi.co.za](http://www.kznpi.co.za)

### Wouter de Wet, AFMA:

012 663 9097 or email [admin@afma.co.za](mailto:admin@afma.co.za).

Website: [www.afma.co.za](http://www.afma.co.za)

### Gerhard Pretorius, Astral:

011 991 6000 or email [gerhard.pretorius@astralfoods.com](mailto:gerhard.pretorius@astralfoods.com)

Website: [www.astralfoods.com](http://www.astralfoods.com)

### Heiko Köster:

[koster0@absamail.co.za](mailto:koster0@absamail.co.za)

### Dr Tracy Davids, BFAP:

email [Tracy@bfap.co.za](mailto:Tracy@bfap.co.za)

Website: [www.bfap.co.za](http://www.bfap.co.za)

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# SUPPORT BROILERS DURING PERIODS OF HEAT STRESS

The warm summer of last year will still be fresh in many people's minds. The question is whether the summer of 2021 and subsequent years will be comparable, but the predictions are that extreme heat will occur more often, causing heat stress in poultry. To prevent problems with heat stress as much as possible, this article discusses several possible solutions.

Heat stress is not only characterized by decreased welfare, but also by lower feed intake, lower growth, and poorer fertility. These effects do not only occur during the period of heat stress, but they can also continue for a long time afterwards. As a result, the financial results of your farm can decline sharply.

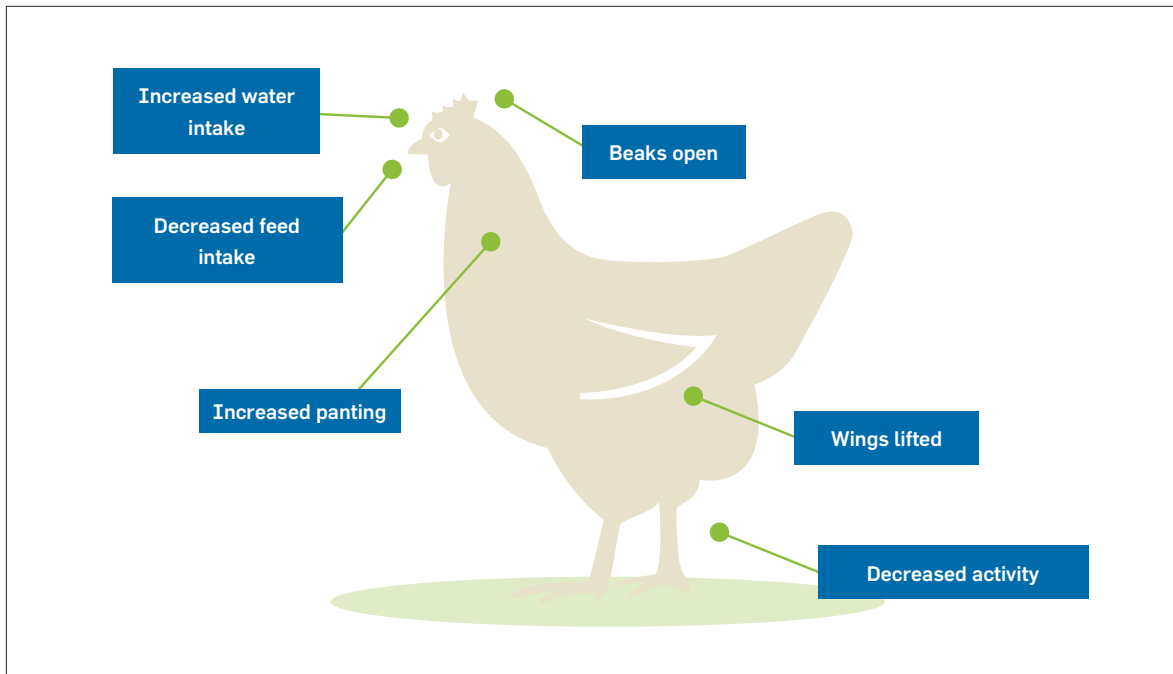
## WHAT IS HEAT STRESS

Poultry function optimally in what is called the thermoneutral or comfort zone. This is the range of ambient temperatures, at bird level, within which a bird can

maintain their normal body temperature. This varies between 40.0 and 42.0°C and it is maintained by controlling heat loss from the body. The thermoneutral zone depends upon the bird's age and the degree of feathering. To keep the body temperature within the limits, a continuous heat exchange takes place between the animal and the environment. If heat production exceeds the ability of the body to lose heat, body temperature rises. If the body temperature goes above 42.5°C, heat stress occurs.



## RECOGNIZING HEAT STRESS IN POULTRY



### RECOGNIZING HEAT STRESS

The picture above shows the typical signs of heat stress in poultry. Heat stress is not only caused by an increase in temperature and an increase in humidity, but it can also be affected by airspeed. This means that it is important that you as a poultry farmer are constantly alert to the possible development of heat stress in your animals. This CoolCare app helps you to do just that!

### WOULD YOU LIKE TO KNOW MORE?

In addition to the CoolCare app and the suggested tips and tricks, it is always advisable to contact an expert to find the best solution for your farm. We can provide you with comprehensive, advice tailored to suit your farm in terms of both management and nutrition.


Use the contact form in the app or mail directly to [infos@deheus.com](mailto:infos@deheus.com)

Finally: our website [www.deheus.co.za](http://www.deheus.co.za) also contains more info about heat stress.

### WHAT CAN I DO TO SUPPORT MY BIRDS DURING HEAT STRESS: TIPS & TRICKS?

1. Ensure that adequate ventilation is installed. A minimum of 3.6 m<sup>3</sup> / h / kg is recommended.
2. Make sure the fans and inlet valves, as well as other elements of the ventilation system, are clean and functioning properly.
3. Do not leave doors open as this removes the negative pressure in the building and no fresh air will reach the animals.
4. In the summer poultry houses heat up most through the radiation of heat. Heating of houses can be prevented as much as possible using proper insulation.
5. By increasing the target value by, for example, 2.0 °C during an expected heat wave, the animals will partly get used to the heat.
6. With the help of cooling, it is possible to lower the (sensible) temperature in the house. Make sure the cooling is working.
7. Do not wait to turn on the cooling only once there are extremely high temperatures
8. Stay at home when heat is forecasted, to monitor your birds and act when needed.
9. Provide cool drinking water. If the temperature rises too much, flush the drinking water system.





The farm currently employs 70 people, having scaled down due to the pandemic

# POULTRY SUCCESS IN RWANDA

A Rwandan start-up poultry business, Poultry East Africa Ltd (PEAL), achieved almost 70% market share within six years and despite a global pandemic, has its eye set firmly on extending its success beyond the country's borders. **Mark Clements** investigates





Shumei Lam (below) started PEAL as a way to continue the work of her late father, one of the first investors in Rwanda



**Imagine starting a broiler farm** from scratch, on land where every hectare was owned by a different family, and each family member had to agree to the purchase before selling to you – not exactly the easiest way to start a business.

Now imagine achieving almost 70% local market share within six years of starting production, which includes managing to pivot and not only retain market share but show further growth in the face of the global impact of COVID-19. Not easy, by any standards.

And yet all this was achieved by Poultry East Africa Ltd (PEAL) in Bugesera, near the Rwandan capital Kigali, since its Singapore-based founder Shumei Lam made the decision to start broiler production back in 2012.

From deciding to enter the broiler business to seeing the first birds on the farm took two years, but was it worth it?

For Lam, there were personal reasons for going into business locally. Doing so was a way of continuing the work of her late father, who was one of the first major investors in the country, and to address the need for meat in Rwanda. Nine years later the decision appears to be paying dividends.

Before the pandemic hit, the 10 hectare farm had a capacity of 50 000 broilers in four curtain-walled broiler houses, and a processing plant with an 800-bird an hour processing line and cold storage. The farm also has a 5 ton-per-hour feed mill and a hatchery, and is halaal-certified and hazard analysis and critical control points (HACCP) compliant.

As COVID-19 took hold, a succession of total lockdowns in Rwanda saw the broiler market shrink significantly, ►



as the demand from the food and beverage sector scaled down. The closure of the Ugandan borders and the inconsistent air freight also meant that supplies of day-old chicks became unreliable and own production became a necessity.

In response PEAL pivoted its business to focus more upstream, repurposing broiler houses to house parent stock, and increasing hatching capacity. Today the broiler and Hy-Line layer capacity are 9 000 each, and the hatchery can produce 64 000 eggs per week. At present the farm employs 70 people, down from 120 pre-pandemic, but the intention is to ramp this up as the market recovers and capacities increase.

Realising an unmet local demand for table eggs and opportunities to cross sell to existing customers, PEAL also started a layer unit that produces 17 000 eggs per week, which Lam

says will increase by 80% by the end of this year.

In addition to rearing birds on-site since 2016, PEAL has also been working with contract farmers, supplying training, chicks, feed and veterinary services as needed. It has proved to be a successful relationship. Says Lam, "We currently have a network of about 30 contract farmers who have a total capacity of 40 000 (5 500 per week); however our average weekly output has been reduced to 3 500 birds. Having said that, we are still the market leader with about 65-70% of the broiler market."

Commenting on the contracting relationship, Lam says, "Our farmers must be up to scratch, and they must live on their farm."

She explains that the company is open to working with more small-scale producers, helping them to benefit from the economies of scale of

being part of a larger group, as long as they adhere to PEAL's standards.

As part of the contract relationship, not only standards, but also production targets are set. If these are exceeded, bonuses are awarded.

## Market orientation

PEAL currently imports broiler parent stock Ross 308 birds from Turkey and Cobbs from Zambia – whatever is available due to the constraints in air freight, Lam explains. The parent-stock chicks are raised, their eggs are hatched and then the broiler chicks are raised to 42-45 days and a slaughter weight of 2.5-2.7kg. The hatchery responds to market demand with ratios adapting accordingly, but at present 2% of its layer day-old chicks are for internal production, 40% of broiler day-olds go to contract farmers and the rest are sold to local farmers.



*During the pandemic PEAL repurposed its broiler houses to house more breeding stock*

**'PEAL is open to working with more small-scale producers, helping them to benefit from the economies of scale of being part of a larger group'**



PEAL imports broiler parent stock Ross birds from Turkey and Cobbs from Zambia, while also hatching and raising Hy-Line layers



PEAL's own multi-age flocks are kept on locally sourced, rice-husk bedding which is then sold on as fertiliser and any used water or other waste is returned to the land. Waste from the processing plant goes to a pig farm.

The majority of the farm's output goes towards Rwanda's hospitality, airline and events sector at present. Kigali is the main destination for product, where PEAL accounts for 75% of the market, while nationwide, 50% of chicken meat sold comes from them. The company can supply up to 10 000 chickens a week and slaughters to demand.

PEAL chicken is instantly recognisable, as the company is the only poultry producer in Rwanda to sell its product in branded packing. This not only ensures product stand-out but is part of the company's traceability programme. According to Lam recent government clampdown on single-use

packaging is presenting a challenge in this regard, so they are seeking alternative solutions via the import of eco-friendly packaging, which will be three times more costly than procuring locally.

## Issues to overcome

Achieving success in Rwanda, even without the unusual pressures of a global pandemic, remains a challenge, even for a company that is firmly on an upwards trajectory.

The Rwandan poultry market is typified by boom and bust, with great price volatility. When prices rise, more are tempted to enter the market, but a lack of enforced legislation means that new entrants do not necessarily do the best possible job, and their actions can have implications for producers across the market. Until the sector becomes more formalised, this type of problem is expected to continue.

This is not the only issue; there are also more day-to-day problems to solve. There is 24-hour security on the farm with dogs to prevent theft. Water has to be brought to site and supplies remain limited. Looking more widely, security of feed supply can hinder the business. Even before the pandemic, imports were expensive and transport ran into issues with containers being held in port.

Supply-side issues are not the only difficulties for any poultry producer operating in the country. Even before the lockdowns, the average Rwandan consumed meat on a less-than-weekly basis and most do not have refrigerators at home. Additionally, chicken meat is more expensive than beef or goat meat, and this might have been further exacerbated by the pandemic. Says Lam, "When lockdowns started, food-delivery services ramped up, but many expats left the country, and unfortunately

we are not buoyed by a robust local consumer market.”

While the local climate may be ideal for raising broilers, there are numerous migratory birds and being 1 700 meters above sea level means that a percentage of fertilised eggs will not hatch because they came from breeder flocks that are kept at sea level. Even for a farm that has up-to-date equipment and trained and engaged staff, having all of its units on one site is not ideal. How to change this is being examined.

## Looking to the future

Commenting on the future, Lam says, “This started as an impact investment to help people, but it exceeded expectations and in the last year, the pandemic gave us the opportunity to streamline and optimise our business according to areas of pent-up demand. It has been critical in weathering this crisis, and we are now looking ahead and getting ready to expand as the market recovers.”

According to managing director Neal Roper, who lives on site and runs the day-to-day operations, it has been gratifying to achieve PEAL's objective of establishing its own breeding flock and being in a position to produce 100% of both its broiler and layer hatching chicks from its imported Ross and Cobb parent stock. He notes that they also managed to secure the exclusive rights to distribute Hy-Line day-old chicks in Rwanda and some surrounding regions. “Establishing an export division was on the agenda pre-COVID, and we will now prioritise the export of layer and broiler day-old chicks for our expansion,” he explains.

Roper believes that the tight controls governing the farm have allowed the business to weather

**‘The pandemic gave us the opportunity to streamline and optimise our business according to areas of pent-up demand’**

the COVID storm and will provide the opportunity for it to move forward. He explains that Rwanda was once a dumping ground for Ugandan chicken, but that Rwandan production is now cheaper and, with a processing plant operating to international standards, PEAL's product should be attractive in the neighbouring market.

As the first modern, integrated poultry producer in Rwanda, PEAL looks well placed to take advantage of this situation. 📷

*An earlier version of this article was published on [www.wattagnet.com](http://www.wattagnet.com)*

## Rwanda poultry fast facts

### Currently 5–7 million chickens are reared in Rwanda

- 1990s: 1 226 000 chickens
- 2017: 5 426 000 chickens
- 2021/22 objective: 10 920 000 chickens

### Chicken meat and egg production

- 2017: 243.7 million eggs and 15 715 tons of chicken meat produced
- 2022 objective: 513.1 million eggs and 35 170 tons of chicken meat

### Annual egg consumption per capita

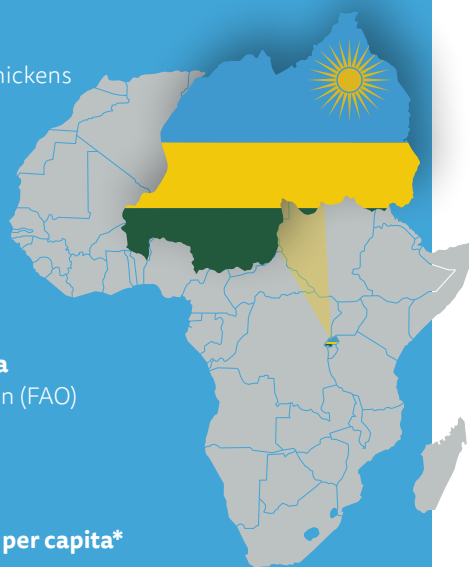
UN Food and Agriculture Organisation (FAO) recommendation: 90 eggs

- 2016: 13 eggs
- 2021/22 objective: 38 eggs

### Annual poultry meat consumption per capita\*

- World average: 14.99kg/ year
- Rwanda: 0.2kg /person/year

\*Source FAOSTAT, 2019



*Source: Poultry Sector Analysis Rwanda, by Susanna Cocchini and Emily ter Steeg for Traide, November 2019*



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  - Ensures better uniformity of the birds throughout the flock cycle
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- 08** Water drains out of the pan, no need to disassemble the bottom or the cone.
- 09** Pan can rotate a full turn around the pipe enabling emptying of the Pan.
- 10** Equal distribution of feed all around the pan.



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# Great chickens that changed history



Words **Alyn Adams**

Illustrations **Jason Bronkhorst**

Did you know that interventions by chickens at crucial moments in history changed the course of events? And then these noble birds were immortalised in cuisine...

## Chicken Parmigiana

A key figure in the Italian Underground resisting Mussolini, La Parmigiana's speciality was stealing top secret files from the police and army. Disguising herself with deli products, she had no trouble getting into government kitchens, where she would slip away to the officers' quarters to rifle through their paperwork.

She was discovered by servants in high-ranking bedrooms on several occasions, but they'd learnt not to ask questions about Mussolini's officers and simply pretended she wasn't there. She was accidentally shot by the liberating Americans, but the Resistance gave her the send-off she deserved – in cheesy breadcrumbs and a tomato sauce.

## Buffalo Wings

Paulie "Buffalo" Wings of New Jersey was a chicken, but also a rat. In fact, he became a rat \*because\* he was a chicken – the first time he got picked up by the Feds and threatened with hard thyme, he sang like a canary.

And it was thanks to his fowl testimony that the whole Gallo family got busted on a few poultry charges, and their operation taken over by some turkeys from Chicago, those vultures!

Paulie has since come home to roost in the witness protection programme somewhere in Kentucky. Egrets, he has a few.





## Coq au Vin

It is only through research by the modern French historian Femme Aniste-Arpée that we learnt of Joan of Arc's faithful battle chicken, Auvin. Ms Aniste-Arpée's 1987 book on the subject, *Le Coq Devant la Pucelle Dans le Cheval\**, was dismissed by the French academic establishment as "based on flimsy anecdotal evidence", a claim that she countered was "typical of a witch-hunting patriarchy".

According to Aniste-Arpée, Auvin was a fearsome Crèvecœur rooster who would sit between the ears of the Maid's warhorse and viciously peck at the oncoming English as she charged into battle. He targeted English horses, making them throw their knights and trample English archers. He remained Joan's faithful companion during her imprisonment and trial, until her martyrdom.

When the 100 Years' War ended, Auvin fell into a lonely wandering life, and his love of red wine saw him succumb to alcoholism. For years, he traded stories of his adventures with Saint Joan for free drinks in roadside inns. He came to a tragic end when he passed out one night in what turned out to be a casserole.

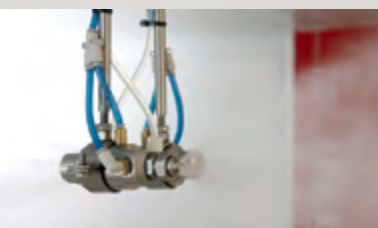
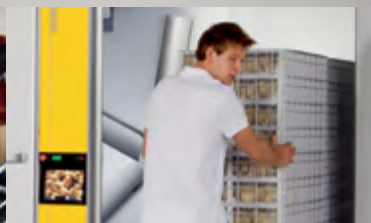
## General Tso's Chicken

A female barnyard reincarnation of the great 19th Century Chinese general, the chicken General Tso grew up, like her namesake, determined to better herself. Well, compared to buttering or battering herself, she thought that was the safest option...

Other chickens laughed when she tried to learn swimming from the ducks and flying from the pheasants, but they weren't laughing by the end of the Chinese Revolution in 1949. That's when she single-wingedly flew and swam across the Strait of Formosa, towing the fleeing national fleet of Chiang Kai-Shek to safety in Taiwan. The Nationalists had lost the mainland, but would carry on thanks to a bird called General Tso. She was also the star of the state dinner to celebrate their safe arrival. ▶

\**The Chicken in Front of the Virgin on the Horse*





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## Chicken Korma

Two thousand years ago, the legend goes, there was a plague of squirrels in northern India. No nuts were safe, and the villagers cowered indoors, guarding their cashew pantries. Eventually, 12 villages pooled what little money they had, and offered a handsome reward for anyone who would rid them of these pesky Despoilers of Nuts.

Three nights later, from out to the jungle a brave chicken appeared: Korma, Vanquisher of Squirrels. No one knew where he came from, or how he had learnt his skills, but no fighting style was beyond him: the Tiger; the Eagle; the Crane; the Cobra; the Buffalo; the eColi; the Wasp... he was a bit of a Korma chameleon.

Peck by vicious peck, spur by blood-drenched spur, he fought the furry horde and drove them out of the villages. And though he fell in his final climactic battle against the Great Squirrel, they honoured his sacrifice. His gnawed remains were enrobed in the nuts he'd helped save, and they served him up as Saturday night's dinner.

## Chicken Kiev

Her mother hen insisted on calling her Kievan all her life. But "Our Kiev" is how she was known by her mates back in the 17th Century, from the moment she decided to give up traditional egg-incubating duties and pursue a career as an independent artisan instead. Apprenticed to a jeweller while little more than a chick, Kiev invented the famous Babushka "Russian nesting dolls" while still a pullet.

This completely revitalised the Russian souvenir industry, and when she came up with the Fabergé egg a few years later, she revitalised the industry all over again – this time targeting rich tourists as well as the simply tacky ones. A millionairess already, her fortune grew tenfold when she sold her last great idea – a chocolate egg with a plastic toy inside, for kids – to a German manufacturer.

She retired in splendour, using her fortune to buy an organic farm and settle down with a flock of like-minded post-broody old biddies no longer interested in annoying cocks. They held monthly Wiccan poetry festivals in honour of the moon goddess and ate a lot of lentils. When she died of old age, a plump great-great-great grandmother, her human neighbours stuffed her with delectable goodies and roasted her in tribute. 🍗



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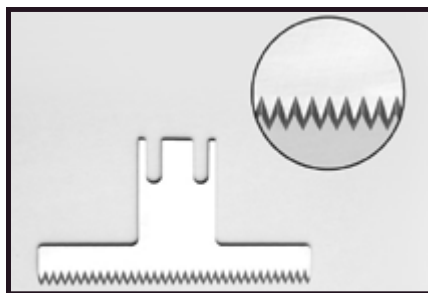
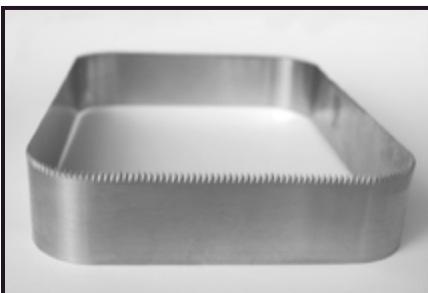


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# ON THE WIRES

**We round up what is cooking** on the international poultry front

Compiled by **Charmain Lines**

## Fill up with... poultry litter




**In the not-too-distant future,** Americans living in the state of California will be able to fill up their vehicles with renewable natural gas (RNG) processed from poultry litter. This is due to a 15-year agreement signed between BP and CleanBay Renewables.

CleanBay uses a process called anaerobic digestion to make RNG from poultry litter. Anaerobic digestion uses microorganisms to break down biodegradable material in the absence of oxygen. The process transforms organic waste into renewable natural

gas and a liquid containing nutrients that can be used as fertiliser.

According to a study done by the US Department of Energy, the greenhouse gas (GHG) emissions of RNG-fuelled vehicles is up to 95% lower than those of vehicles using petrol or diesel on a lifecycle basis.

CleanBay is planning to eventually have 30 RNG facilities, each expected to recycle more than 150 000 tons of poultry litter per year. This could generate enough sustainable energy to keep 9 200 vehicles on the road every year. 


## Cage-free eggs ruffle OIE feathers

**During the 88th general session** of the World Organisation for Animal Health (OIE), held in August, a proposal to define the new parameters of laying hen welfare in the world was rejected. A two-thirds majority was needed, but only 46% of delegates supported the motion. Some 35% of votes were against the proposal and 19% of voters abstained.

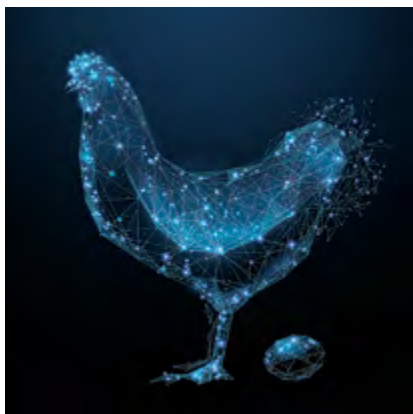
Feedback suggests that delegates disagreed on the compulsory introduction of production systems other than cages, with Mexico, Colombia and Peru among the most strident opponents. They are among the largest egg producers in the world, and home of some of the biggest egg companies. They're also part of the developing world, and their opposition stemmed at least in part from not agreeing with the developed world's agenda.

One of the main arguments raised was that cage-free production would make the cheapest animal protein – eggs – more expensive to people who can least afford a price hike. The average Mexican, for example, earns at least three times less than the average citizen of the United States, Luxembourg, Iceland or Switzerland.

An ill-considered switch could, therefore, put food security and food availability at risk, as well as severely impact the egg-producing business.

Instead of banning one production system or another, it is appropriate that for now at least, consumers are given the choice to buy cage-free eggs or not. 

## Where could technology take the poultry sector?



At least some of the answers to this question are on the agenda of the 2021 Poultry Tech Summit. This in-person conference happens in Atlanta, Georgia, in the United States, from 31 October to 2 November.

Billed by the organisers as the only event that “connects researchers and entrepreneurs with poultry sector technology experts, venture capitalists, financiers and producers looking for new projects and investments to fund”, the Poultry Tech Summit promises to be fascinating.

This could be a good way to restart your business travels. For more info, visit [www.wattglobalmedia.com](http://www.wattglobalmedia.com) or scan the QR code alongside with your smartphone. 📱



### Agenda topics include:

- High-precision weighing of poultry using 3D-camera technology.
- Genetic solutions to the male layer chick problem.
- Worker digital twins and AI for enhancing labour effectiveness.
- Antimicrobial peptides as direct replacements for antibiotics.
- Robotic assistance for commercial poultry-house management.

## Fire the minister, says Ghanaian poultry farmer



According to the Ghana Poultry Farmers Association, an acute shortage of feed is threatening the survival of the country's poultry industry – and at least one poultry farmer blames the country's minister of food and agriculture.

Daniel Dolling, CEO of Loudorph Farms, lies the crisis at the door of Dr Owusu Afriyie Akoto. In criticism widely reported in traditional and social media in Ghana, Dolling says that the minister encouraged maize farmers to export their bumper harvest to neighbouring countries, instead of stockpiling it for domestic use. “We warned him about his action but he refused to listen. So to me, frankly, he has failed and should be fired.”

In addition to feed shortages and high prices, Ghana is also facing an outbreak of highly pathogenic avian influenza in the country. 📱

## Plans with eggshells

In 2019, worldwide egg consumption generated about 8.3 million tons of eggshells – most of which ended up in landfills. But they don't have to. From wrinkle prevention to biodiesel production, there seems to be no end to the usefulness of eggshells.

Pure eggshells (with the membrane removed) are used as calcium supplements for animals and humans, while the collagen in eggshell membranes is the source of the wrinkle-prevention claims of a number of cosmetic applications.

Using eggshells' excellent absorbent characteristics, a product was recently launched in China to remove pesticide residues, pathogenic bacteria and industrial waxes on the surface of fruits and vegetables. These same characteristics are proving useful in water purification: eggshell provides a good starting point for the synthesis of a high-capacity absorbent that removes pollutants, including heavy metal ions, in waste water.

Moving to industrial applications, a thin film of unprocessed eggshells has been shown to protect construction materials against UV light, providing an environmentally friendly alternative to inorganic additives such as titanium oxide. And crude eggshells treated at high temperatures can also be a catalyst for biodiesel production. 📱

# A foothold *in the* desert

*The biggest threat to Namibia's young industry is dumping by large poultry-producing countries such as Brazil*



The Namibian poultry industry is much newer than South Africa's, but already faces similar trade threats. **Pieter van Niekerk** from Namib Poultry Industries (NPI), a member of Namibia Poultry Producers Association (PPA), explains why SACU collaboration has become essential



**Despite being** a very young industry, the broiler sector in Namibia has performed well over the last few years. When we started in 2012 many industry experts said that Namibia and specifically Windhoek was totally unsuited to poultry production due to its extreme desert climate and lack of water, as well as the 1 700m altitude.

Today, however, we have a viable industry, thanks to the passion of the NPI and the Namibian population, and the backing of the Namibian government that understood the importance of the industry. We also owe a debt of gratitude to the SA industry – from veterinarians, and feed and production specialists who supported us to SAPA's Izaak Breitenbach whose invaluable inputs have helped to turn production around.



An impact assessment report by Cirrus Capital, commissioned in 2017 by the Namibian Poultry Producers Association (PPA), indicated that with direct and indirect contributions, the domestic broiler industry contributed 0.71% to the gross domestic product in the 2017 financial year, which has increased to almost 1% in 2021 despite the economic downturn caused by the global COVID-19 pandemic.

According to Cirrus, "This could grow to 2% under the right conditions, including clear, concise and supportive legislation and increased consumption of poultry products."

Namibia lags far behind South Africa in annual per capita consumption of chicken, with roughly 16kg compared to South Africa's 38kg. Total consumption stands at 3 400 tons per month of which Namibia produces 2 400 tons or 70%.

The research confirmed a rise in demand, and while the increase is currently catered for by imports, local producers have started adding capacity. Historically most chicken available in Namibia has been frozen, but as demand has grown, other types of poultry products, such as fresh chicken, chicken livers and cleaned chicken feet could enter the market. Some of these products offer very cheap sources



▲ Pieter van Niekerk

**The steady growth means that Namibia could be self-sufficient by the end of 2025**

of protein to Namibians.

The steady growth means that Namibia could be self-sufficient by the end of 2025, with all the positive economic implications that come with it. As it stands, the multiplier effect of the broiler industry on the Namibian economy was found to be substantially larger than the direct output from the industry would suggest. The findings indicated that for every N\$1 output which the industry generates, the overall impact on the economy is N\$4.42.

Chicken imports are currently limited to a maximum of 1 200 tons per month, but the current protection sees importers trying to obtain the most quota, instead of supporting the domestic industry to substitute imports with local production.

And while our young industry finds its feet, its biggest threat is not neighbouring South Africa, but large poultry-producing countries such as Brazil and some EU countries, which dump unwanted surplus, including leg quarters and even expired stock into southern Africa. Most of Namibia's dumped product enters the country by road, having arrived via South African harbours.

A survey conducted in the retail market shows that shelf prices of imported poultry products – mostly frozen leg quarters – are only slightly

*Experts initially said that Namibia with its desert climate was unsuited to poultry production, but time has shown nothing is insurmountable*



## A VIEW FROM OUR NEIGHBOURS



*Although producers had to absorb COVID-related price hikes, the increase in demand for chicken meat has nonetheless grown the market over the last year*

### DID YOU KNOW?

*Namibia has so far dodged the bullet of avian flu in 2021. This is likely due to its distance from regular bird migration routes, and its extreme fluctuations between day and night temperatures, which mean climate-controlled hen houses are the norm.*

lower than that of local products (or in some cases more expensive), thus any savings incurred via imports are not passed on to the consumer.

Chicken remains the most cost-efficient of all the sustainable protein sources and import restrictions have seen a stabilisation of Namibian prices, bringing them in line with those of imported products. Production input costs are higher in Namibia than in the large producing countries and as a result Namib Poultry Industries (NPI) has streamlined its processes to be exceptionally efficient. And while producers had to absorb massive price hikes of up to 50% in transport, maize and soya due to COVID-19, the increase in demand for chicken over fish or red meat meant that the market grew nonetheless during the last year.

Despite the challenges, the broiler industry is very important for Namibia and the whole region. As coastal fishing is diminishing globally, poultry is likely to become increasingly important as an affordable protein source, especially in Africa. Looking after this sector will become essential for food security, and for job preservation.

By producing our own chicken in Namibia, food security is enhanced with a cost-efficient source of protein. Local production turns Namibia into a price maker instead of being

vulnerable to price shocks caused by such events as the recent outbreak of bird flu in South Africa.

Overall, there can be little argument against the further development of the domestic broiler industry, but without a supportive legislative framework, it remains risky for new players to enter the market. Governments across the Southern African Customs Union (SACU) must catch up with private-sector development in terms of the legislation, and join forces to propel the African industry into the future.

Brazil and other poultry-producing countries do not care about our consumers – southern Africa is a convenient dumping ground for their surplus. They would like to destroy our local industries so that they can ensure a profitable market for their leg quarters. Almost every

poultry-producing country, including Brazil, have protective measures in place around their own poultry industry, which clearly illustrates that those governments recognise the importance of this protein source.

SACU is lagging behind and will have to pay special attention to this sector. I believe that if effective antidumping legislation was in place, no protection would have been necessary, but as things stand we have to find ways to combat unfair and predatory trade. 📌

**By producing our own  
chicken in Namibia, food  
security is enhanced  
with a cost-efficient  
source of protein**





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# OUR HATCHING STORY



**Namib Poultry Industries (NPI)** became a fully integrated and operational poultry farm in May 2012, supplying and meeting the great demand for fresh and frozen chicken to Namibian citizens. A wholly owned subsidiary of Namib Mills Investment Group, **Namib Poultry Industries (NPI)** has become a significant sector catalyst in Namibia. Since 2012, **NPI** has increased production and output of quality chicken products for the Namibian citizen to an average of about 2 000 tonnes per month. In addition to creating more than 700 direct jobs in the local market, the income and livelihoods of more than 2 000 households have been positively changed. In our quest to become the leading supplier of poultry products in Namibia, we have maintained strict organic feeding regimes for our chickens. **Namib Poultry Industries (NPI)** is firmly committed to the overall domestic food security of Namibia and impacting local development of enterprises.

## REAL GOOD SUSTAINABILITY

**Real Good Chicken** is a quality, affordable and healthy Namibian protein. It proudly brings friends and families together, stimulating local businesses and uplifting communities. To date, **Real Good Chicken** has been training kapana vendors in the art of delivering a quality, cost-efficient and healthy alternative to Namibian kapana consumers.

**Real Good Chicken** is proudly associated with the monthly Small Park Kapana Festival in Ondangwa, where young entrepreneurs showcase their chicken kapana skills. Thus far, a total of 12 winners have walked away with cash prizes and stock to kick-start their own businesses. The partnership between the small business sector and Real Good is testament to a commitment of showcasing the health, business benefits and sustainability of chicken.



## NAM CHICKEN IS 'FRESH'

Our **Nam Chicken** brand became the first locally produced chicken product that truly epitomises the term 'fresh'. **Nam Chicken** is locally farmed thereby ensuring a fresh shelf life by reducing the number of days from plant to table. The **Nam Chicken** brand has become a firm household favourite over the years and **Namib Poultry Industries (NPI)** is committed to invigorating the brand and keeping it relevant as competition and consumer tastes evolve.

**NPI** launched the new **Nam Chicken** packaging in March 2021 with a competition that reflects our customer lifestyle profile. With the launch of the new packaging, we are confident that **Nam Chicken** will maintain the position of a high value synonymous with quality, health and real 'freshness' into the foreseeable future.





# Can you make your own feed?



What to consider when commercial feed prices seem unaffordable. **Dr Foch-Henri de Witt** advises

***“Dear Poultry Bulletin, as a small farmer I battle to afford commercial poultry feed. How do I ensure my flock gets good nutrition – can I grow my own maize and make my own feed?” – Bayanda Tancredi Maseko, via Twitter***

**As explained elsewhere** in this magazine, feed costs are currently very high, and one has compassion for small-scale farmers trying to provide the best nutrition for their flocks. Mr Maseko’s problem is not unique and is unfortunately a question of economies of scale – having relatively high input costs on the one hand and limited production output (number of birds) on the other. This often causes cash-flow issues and a sense of despair from a producer’s side. He is also not unusual in looking around for alternative methods to try reduce his feed cost, but the truth is that this is not as simple as it might seem.

Firstly, the different ingredients that make up a balanced diet may not be readily available, and therefore expensive. The grain and grain by-products used in feed, including maize and soya beans, are classified as “commodities” which means that they are priced according to international currency, mostly the US dollar. Other feed additives such as nutritional supplements, minerals and vitamins, are generally imported and therefore also susceptible to the rand/dollar exchange rate.

Secondly, optimal broiler production depends on providing a well-balanced diet, made up of quality

feed ingredients, alongside good farm-management practices to ensure that each gram of feed you buy is used by chickens for growth, and not “wasted” by combating poor environmental conditions. Ensuring that your flock is housed at the right temperature, with the correct hygiene and health controls in place, is one way a farmer can make sure that the nutrients from his expensive feed is used optimally.

Thirdly, growing your own maize is unlikely to solve the feed challenge, as that comes with a whole other set of complex variables before you get to an ideal diet, including input costs, quality control, and storage and feed-mixing challenges.

If you do have some grain available to use for your chickens’ diet, it’s recommended that you consult a professionally registered animal nutritionist to help you plan the feed compositions and diet formulations required for various production phases. They would also advise on any additives or dietary premixes to be added for a balanced diet.

I’m afraid there is no easy workaround, but the reality is that when farming poultry on a small scale it is not cost-effective to also try and produce your own feed. Yes, feed is expensive, but you get what you pay for, and the benefits of offering a balanced commercial diet outweighs the risks of carrying full responsibility for all your own input costs. 📌

*Dr Foch-Henri de Witt is a senior lecturer in the Department of Animal Science at the University of the Free State. For advice on poultry nutrition, contact animal nutritionist Heiko Köster via email on [heikokoster@absamail.co.za](mailto:heikokoster@absamail.co.za) or call 082 804 0950.*



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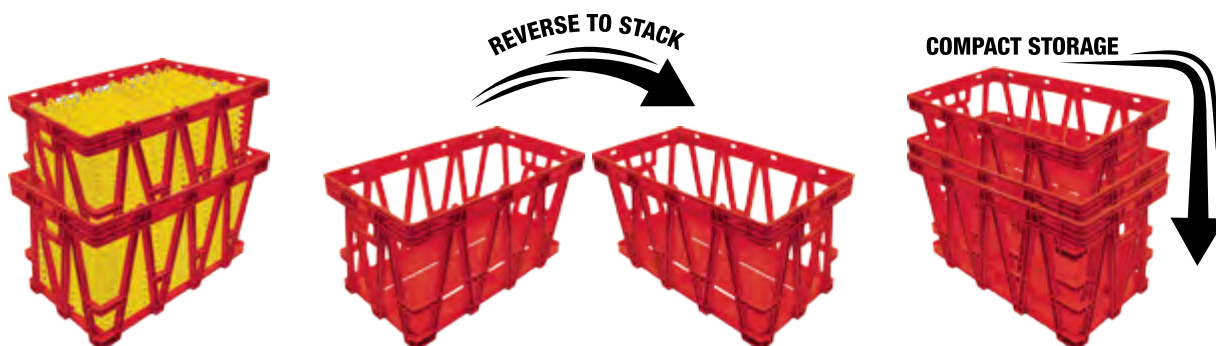
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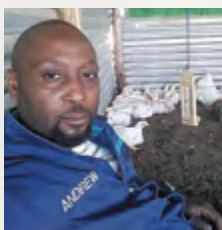
# HACKS&TIPS

It's all about keeping your flocks fed... farmers pass on their secrets

## We asked

- 1 What measures do you take to store feed?
- 2 Can you share your best tips for feed procurement?

## Bethonius Maluleka



**KM Poultry**  
Pretoria

Follow Maluleka on Twitter


 @PoultryKM

- 1 It is an uphill battle to secure and store feed, because like most other small farmers I can't afford a silo or storage containers. We survive by loading feed onto wood pallets to keep it dry and away from any source of moisture.
- 2 It's always best to source good-quality feed that works best for the output you want. This will eliminate having to add any complementary additives to boost the growth of the birds. I have found that the best way to optimise feed is to use feeders that minimise wastage. Some farmers remove feeders at night, but again this is informed by the output product.

## Grace Kgomongwe



**Moatswi Trust**  
Zeerust

- 1 Since our feed is deposited into silos and mostly used up during a cycle, we don't ordinarily have to keep and store feed. But in the likelihood that we have leftover feed, we package it into sanitised sacks for storage in an enclosed, dedicated feed store that observes the same biosecurity measures used around the chicken houses. We also have continuously serviced rodent-bait stations around the feed store.
- 2 As contract growers we receive our feed from a Supreme Poultry-linked feed mill and all our feed have met the necessary nutritional standards before it is delivered to the farm. However, for farmers who don't have contract-growing arrangements in place, I would advise that they buy straight from a feed mill, stick to tested and balanced feed formulas and avoid buying from retail stores in prepackaged bags – there's no telling what is included in the mix, where it was stored, and if biosecurity requirements were met. Chickens are very sensitive and what they consume will have a direct impact on their health, quality and weight. And feed is the biggest input, so if you don't get good feed, the loss will be substantial. 



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PLUG



LEG



LEG  
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- EASY AND QUICK TO ASSEMBLE.
- EASY TO FILL THROUGH NEW BUNG OPENING IN BASE.
- CAN BE RAISED USING POLTEK® INNOVATIVE LEGS AND LEG EXTENDERS OR SUSPENDED WITH CORD AND CORD ADJUSTER.
- ALSO IDEAL FOR FREE RANGE ENVIRONMENTS.

**NEW OPENING  
IN THE BASE  
FOR EASIER,  
HASSLE-FREE  
FILLING**



Guidelines



ON THE FLOOR WITH  
PLUGS FROM  
DAY 8 TO DAY 15



LEGS ARE  
ADDED FROM  
DAY 16 TO DAY 28



LEG EXTENDERS  
ADDED FROM DAY 29  
TO END OF CYCLE



PLUG



LEG



LEG  
EXTENDER



8LT & 12LT ANTI-DROWN RING

**\*\* THE SAME PLUGS, LEGS  
AND LEG EXTENDERS THAT  
ARE INTERCHANGABLE  
WITH THE ECONO TUBE  
FEEDER AND JUMBO  
TUBE FEEDER.**

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LEADERS IN PLASTIC POULTRY TECHNOLOGY



# A better deal for all in the grain chain

The Animal Feed Manufacturers Association (AFMA) is at the heart of the grains and oilseeds value chain. CEO **De Wet Boshoff** explains their role in providing poultry farmers with the best possible feed solutions



**We at AFMA see ourselves** as the South African Poultry Association's biggest partner, given that our members supply all broiler feed in South Africa and 80% of layer feed. In fact, 65% of the feed our members produce is consumed by the chicken industry.

For AFMA members, chicken dumping cuts very close to the bone. According to our calculations, imports currently replace the equivalent of 800 000 tons of maize and 500 000 tons of soya beans, translating into about 1.3 million tons of animal feed. If we could produce this feed in South Africa, we would employ 1 800 to 2 000 more people in 12 or 13 additional medium-sized feed factories. We know that some level of imports will always occur, but believe that at least 40-50% can be prioritised to be replaced by domestic production, to the benefit of all stakeholders.

Animal-feed manufacturing is the bridge that links grain farmers to animal production, particularly chicken. From this unique position, AFMA is able to identify threats and opportunities for the entire value chain. We believe this leaves us with the responsibility to do all we can to place the consumers of feed in the best possible competitive situation.


We execute this responsibility in two main ways. The first is interaction with and support to government. For instance, AFMA chairs the Strategic Agriculture Inputs Forum (SAIF), whose main objective now is to help put mechanisms in place that would assist government in clearing the significant backlog of product registrations and renewals for, among others, pest-control chemicals,

***'If we could produce feed from locally produced grain rather than imports, we could employ up to 2 000 more people in 12 or 13 additional factories'***

animal-health remedies, feed, pet food and fertiliser.

We were also instrumental in drafting the new Feeds & Pet Foods Bill, which should replace the outdated Act No 36 of 1974, our current governing legislation.

The second way is through self-regulation aimed at risk management and quality assurance. Since 2008, all AFMA members undergo an external audit of the AFMA Code of Conduct every two years to ensure their production facilities and processes adhere to international best practice and standards. Our Code of Conduct Compliance mark gives our customers the peace of mind that rigorous risk- and quality-management processes were followed in the manufacturing of the feed they use.

My message for SAPA members is that AFMA fights in your corner – from manufacturing the best possible quality feed, to doing all we can to unlock growth in our industry in support of our customers. 





# UNITRANS FEED SERVICES

## Partnering with AFMA to deliver safety

Unitrans leverages AFMA accreditation, industry expertise in biosecurity controls to launch ad hoc animal feed distribution services

**U**nitrans is a diversified supply chain solutions company serving the South African market. Our highly successful business model incorporates innovative design, implementation expertise and the continuous delivery of world class solutions to our customers.

With more than 25 years' experience in the poultry value chain, Unitrans offers farm services, transportation services for eggs, chicks, live birds and animal feed, as well as downstream cold logistics services.

### Unitrans Feed Services

Unitrans Feed Services is a recently launched hygienic, reliable transport service utilising world class technology and years of industry expertise to deliver bulk animal feed on a lane rate basis. Unitrans's AFMA accredited service is available at short notice, at competitive rates with high levels of safety and quality.

### AFMA accreditation

Unitrans received its AFMA Transport Protocol Accreditation in August 2021, achieving a 100% audit score. The AFMA Transport Protocol describes how raw materials and ingredients for use in the feed industry should be transported – and now extends to include bulk feed

transportation, from mill to farm. The protocol is an additional risk management tool that provides guidelines and cleaning regimes for various feed distribution scenarios.

After a strict and demanding audit process of the Unitrans outbound bulk feed fleet, which included stringent checks on aspects including biosecurity risk management, cleaning, disinfecting and procedures followed from mill to farm, Unitrans is proud to have been accredited with the ultimate AFMA Transport Protocol stamp of approval.

### Biosecurity protocols

With the 2021 outbreak of avian influenza, and its far-reaching impact on the South African poultry industry, farms and birds, transport and supply chain partners have a responsibility to manage and limit the spread. This can be strengthened by creating awareness of avian influenza, how it spreads and the effects of the disease. It is vital to communicate, report and provide feedback on the location of distribution equipment, ensure detailed biosecurity processes and procedures are in place, as well as ensure regular, in-depth cleaning and sanitising of all equipment, PPE and staff. These protocols and systems warrant that there is no cross-over from

designated operating sites, as well as from broiler to hatchery fleet in operation. Active representation is important to facilitate direct communication of protocols for specific farms - and ensure compliance at mills and at off-loading points.

As an industry, we have a responsibility to limit the spread of avian influenza. Unitrans is committed to partnering with the Animal Feed Manufacturers Association to manage and limit the impact of this disease, providing safe, sustainable and high-quality feed distribution services in compliance with the AFMA Transport Protocol.



For more information  
+27 21 762 0061  
[www.unitrans.co.za](http://www.unitrans.co.za)





# RECIPE OF THE MONTH

## STRAP ON THE FEEDBAG FOR MIELIE MUFFINS.

BRILLIANT WITH A CHICKEN BRAAI  
JUST AS GOOD ON THE BREAKFAST TABLE

OVEN 180°C

YOU WILL NEED 2 MIXING BOWLS



DRY MIX



200g  
FLOUR



50g  
MAIZE MEAL



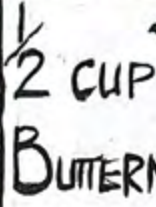
...teaspoons...  
2t- BAKING POWDER  
1t- SUGAR  
1t- BICARB.  
1/2t- SALT  
1/2t- PAPRIKA



WET MIX



2 EGGS



1/2 CUP  
BUTTERMILK



1/2 CUP  
MILK



1 TABLESPOON  
BUTTER  
MELTED

ADD DRY TO WET MIX & GENTLY COMBINE ... THEN ...



1 CUP  
MIELIE  
KERNELS  
FRESH OR FROZEN



1 SPRING  
ONION  
CHOPPED



1 CUP  
STRONG CHEDDAR  
GRATED  
⊗ KEEP SOME BACK

- MIX TO INCORPORATE. DON'T OVERMIX!
- FILL A WELL GREASED 12 HOLE MUFFIN TIN
- ⊗ TOP WITH RESERVED GRATED CHEESE
- COOK UNTIL KNIFE IN CENTRE IS CLEAN ± 25 MINS.
- OPTION: GLAZE HOT MUFFINS WITH 1 T. MARMITE MIXED WITH 2 T. MELTED BUTTER. BRUSH ON HOT MUFFINS.



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