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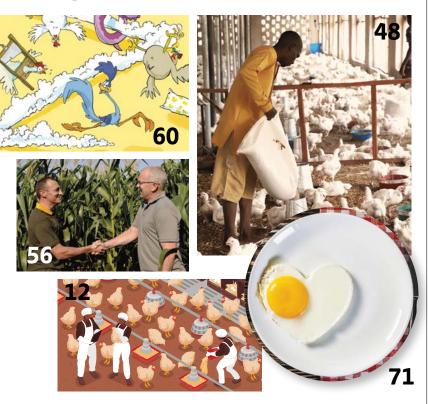
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#### THE SOLUTIONS ISSUE

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The battle against dumped imports is one the poultry industry has fought for many years, and the market share that's been lost to frozen leftovers from Brazil and its dumping cohorts represents lost jobs, lost tax revenue and lost growth opportunities in our country.

In fact, the damage circles wider than just South Africa, as a poultry colleague from neighbouring Namibia laments (page 6).

The masterplan set out to curb unlawful trade, and in return our producers have invested megamillions in expansion projects, increasing production to meet consumer demand. Making space for our globally competitive industry to perform as it can, is the only sure-fire way to get affordable protein to our consumers sustainably, and to ensure food security for future generations.

That is why *Poultry Bulletin* is adding its voice to the call: Minister Ebrahim Patel, please bring back the antidumping tariffs.

Luckily this is also a solutions-driven industry and, as we saw while we made this issue, solutions are what poultry people find, whether they are large integrated producers or small-scale farmers operating from one room. What a pleasure to tell their stories.

Speaking of solutions, you'll find the solution to our "egg-cellent" quiz, on page 71 – all in celebration of World Egg Day on 14 October. But first see if you can find all 10 questions scattered throughout the magazine, and let's determine if you're an egg fundi, or an egg philistine.

Happy hunting!

#### Melinda

editor@poultrybulletin.co.za

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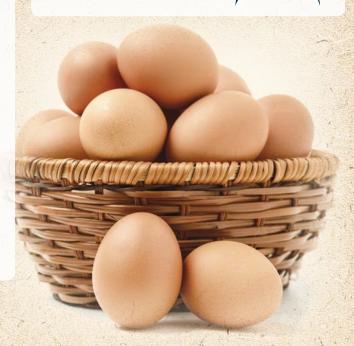
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#### FROM THE BOARDROOM

# Solutions require teamwork

**Reflecting on solutions**, as this issue is themed, we've been considering how increased collaboration between Government and SAPA has created hope that we'd resolve the challenges faced by the poultry industry. The signing three years ago of the masterplan was one of the most significant recent milestones, identifying clearly the issues that had to be addressed to ensure growth and transformation, and mapping out how to get there.

One of the key objectives identified was to eradicate the predatory trade that had systematically eroded the market for South African chicken producers over decades. The dumping of chicken from the world's biggest exporters had happened on such a grand scale that imports owned a third of the SA market, disincentivising local investment, and preventing growth and much needed job creation. The masterplan revived hope and set in motion a programme of curtailing dumping with import duties and tariffs. Local producers in turn rolled out huge investments in infrastructure development and job creation, to increase output and ensure enough chicken was produced to meet the demand.

In support of these investments, SAPA applied for an antidumping duty against some of the biggest culprits – Brazil, Ireland, Poland, Spain and Denmark – and Minister Ebrahim Patel granted a provisional duty on 12 December 2021. It had been proved that dumping had taken place and, moreover, that this had caused material harm to our poultry industry.

It was expected that the duty we'd applied for would be implemented when the provisional duties lapsed, on 12 June. Right now the four EU countries are not a big concern as avian flu restrictions still prohibit exports, but powerful Brazil is champing at the bit to resume dumping.

It was therefore with disappointment that we learnt on 1 August that while Minister Patel had indeed announced antidumping duties against Brazil and the four EU countries, he had suspended them for 12 months, until 1 August 2023. The reason given was concern over a possible impact such duties might have on retail prices in tough economic times.

More worryingly, the minister also stated that should the economic situation not improve, he might suspend the duties beyond August 2023.

This deviation by Minister Patel from his commitment



## 'Dumping will resume and our industry won't be able to rely on the market it has invested in'

to take action against dumping is sadly counter to the spirit of the masterplan, and to the collaboration between the industry and government that is needed to build the outcomes South Africa needs.

The industry has upheld its end of the agreement with investment of over R1,5 billion to date into growing production and creating hundreds of extra jobs. In return, government would offer protection against dumping. It was always going to be a team effort. Without all the elements working together, the desired outcomes will remain a dream

The postponement has the inevitable consequence that imports from Brazil will once again be dumped in South Africa in huge quantities, disturbing the balance and harming the local industry, which will not be able to rely on the market it has invested in. The chain reaction will also be felt in the feed-manufacturing industry and grain consumption, leading to reduced economic activity across the board in one of the largest agricultural sectors.

As a team – government and industry – we have to once more look to the masterplan that we formulated together and be guided by its principles. There simply is no better solution available.

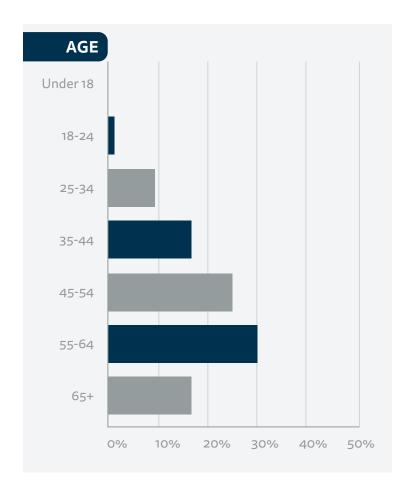
#### Aziz Sulliman

Chairman, SAPA



### **LETTERS**

Namibian industry responds to tariff suspension, and we report back on *Poultry Bulletin*'s first reader survey



#### Reader research results

The results of our first-ever reader survey are in, and we want to thank everyone who responded to the email request and answered a series of questions online about Poultry Bulletin.

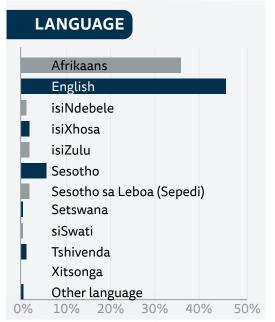
The objective of the survey, conducted via research platform SurveyMonkey, was to establish whether the magazine is a good platform to reach readers in the poultry and related industries.

The official results of the survey happily confirmed the informal feedback we receive via

your letters, messages and social media, namely that you find the magazine useful, of high quality and enjoyable to read. It also provided a clear reader profile:

- Most of you are senior decision-makers within your operations (70%) and aged between 45 and 64 (41%).
- Most of you are male (73%), and English-speaking (46%), although many of you are Afrikaans-speaking (36%) or speak other languages, such as Sesotho (5%)





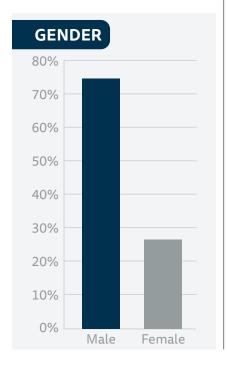


#### Send your letters to editor@poultrybulletin.co.za

More results show that of all the people who responded to the survey:

- 90+% rate the magazine as high quality.
- 92% consider it trustworthy.
- 73% are loyal readers who have read most or all of the issues.
- 60% spend significant time reading every issue – between 30 mins and 2 hours.
- 90% rate the advertising in the magazine as valuable, and 83% say the advertising influences their decision-making.

The results confirmed without a doubt that advertisers who would like to reach readers in the poultry industry would do well to use *Poultry Bulletin* as a platform. For more information, contact Louisa on advertising@poultrybulletin.co.za





#### Who gave Patel the right?

As a representative of the Southern African Customs Union (SACU) members who are directly harmed by chicken dumping, the Namibian poultry industry has serious questions for SA's Minister Patel about his suspension of the antidumping tariffs. The investigation was conducted on SACU level, so who mandated Patel to unilaterally decide about a matter that affects the oldest trade agreement, without consulting the other members? This is counter to the spirit of the SACU agreement, and in disregard of the best interests of SACU industries.

The claim that it is to protect consumers is unconvincing. Our consumers don't benefit from cheap chicken when Brazil or Europe dump chicken in Africa – only the importers score, and it's only their margins that Minister Patel protects.

If the aim is to provide cheaper protein, Patel should rather ensure that more chicken can be produced

locally than to bring it halfway around the world. Rather create the jobs here, so that consumers in South Africa, Namibia and neighbouring countries can actually afford protein.

We were busy assisting two previously disadvantaged entrepreneurs with building new chicken houses, but this has now been halted by financiers concerned about market access.

Antidumping tariffs were recommended as a trade remedy against nations that act unlawfully, and to suspend this corrective action amounts to giving permission to criminals to break the law.

In Namibia we are flooded by dumped, expired chicken, but Minister Patel's decision implies that this is fine, that trade remedies are not in SACU's interest.

Those antidumping tariffs are not an indulgence; they are a necessity. We urge Minister Patel to lift the suspension immediately.

#### Pieter van Niekerk

Namib Poultry, Windhoek, Namibia



## **NEWS IN BRIEF**

Zero-rated chicken, day-old chicks, and new leadership - it's a news roundup

Compiled by Charmain Lines

### Chicks for Africa

#### Congratulations to SAPA member

Clive Tigere on a sterling first week for Northroost Hatchery, the new poultry production project in Makhado, Limpopo. A joint venture between Tigere's company KC Hatchery, Country Bird Holdings and Bushvalley Chicken, the new facility was funded with a R56 million investment as part of the industry's masterplan commitment to grow poultry production. Northroost will have a final output of around 450 000 quality day-old chicks per week, from fertilised eggs supplied by CBH, and this is expected to be a gamechanger for poultry farmers in the surrounding districts. In terms of the partnership agreement, Bushvalley takes a substantial percentage of the day-old chicks that are hatched under Tigere's watchful eye.

The first batch of eggs were set on 24 August, kicking off a cycle in which two batches are set every week, and Tigere was thrilled to report a hatch rate of 91% when the first hatchlings made their appearance 21 days later. "We were targeting 87%, so that was such a wonderful surprise," he enthused. And the second batch, three days later, performed even better, coming in with a 93% hatch rate, so that Northroost could boast delivery of 193 000 healthy day-old chicks in its first week of operation. Sterling beginnings!

Read the full story of Northroost Hatchery in the upcoming December/ January issue of Poultry Bulletin.







#### DA calls for no VAT on chicken

Speaking at the NAMPO agricultural show in Bredasdorp in the Western Cape in September, DA leader John Steenhuisen mentioned a plan of five interventions the official opposition submitted to President Cyril Ramaphosa to address the food-inflation crisis in South Africa.

No surprises that chicken features in the suggested course of action.

The DA has asked that certain basic

foodstuffs be exempted from VAT, and noted chicken among them.

"We especially call on government to zero-rate bone-in chicken and other chicken categories commonly purchased by low-income households," said Steenhuisen. SAPA has long supported the zero-rating of bone-in chicken portions as a measure to make quality protein more affordable to people who most need it.

#### New MD for Daybreak Farms



Matshela Seshibe has been named as the new CEO of Daybreak Farms, the integrated chicken producer that is owned by the Public Investment Corporation (PIC).

"I am grateful for the opportunity to be part of Daybreak Farms," says Seshibe of his five-year appointment. "It is a privilege to join the team and contribute to its future growth. My role as CEO is to help Daybreak realise its potential. It is my personal ambition to help galvanise our company to be a sustainable force for good for all its internal and external stakeholders."

Well versed in the broader food industry owing to stints with Unilever, Tiger Brands and Coca-Cola, Seshibe joins Daybreak Farms from Albany Bakeries where he served as MD. He holds a BCom degree in business economics, finance and information systems from the University of the Witwatersrand, and an MBL in leadership, finance and business strategy from UNISA.

Seshibe makes special mention of the warm welcome he has received from SAPA and adds that as a new board member, he is looking forward to playing a role in advancing the needs of the industry.

On behalf of our readers, *Poultry Bulletin* congratulates Seshibe on his appointment and wishes him success in his new role.

### CHICK OF THE MONTH



#### The biggest and the smallest

The world's biggest chicken was bred to bump turkeys off the Thanksgiving table. Weighing as much as 9kg (on average 5kg) each, the Jersey Giant was first introduced into the American Poultry Association in 1922 as a broiler breed.

Due to their slow growth rate, these heavyweight hens never made much of a mark commercially. However their mellow and docile temperament, and very large eggs, makes Jersey Giants ideal backyard birds.

Standing about 66cm tall, a Jersey Giant hen towers over the dainty 25cm, 500g Bantam Rosecomb, which is generally regarded as one of the smallest and lightest chickens in the world, named for its distinctive comb. It is also one of the oldest breeds, with records indicating sightings from as early as the 14th century in Britain.

The lively little Rosecomb

isn't the best egg layer around, but is well known for its succulent meat. The chickens are also generally friendly and easily handled.



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#### **ECONOMIST'S VIEW**



# Support is essential for transformation

By Johann Kirsten

**There is much talk** about the subsidies that white farmers received in the past, and the need to re-introduce subsidies to enable black farmers to join the ranks of commercial agriculture. In the process of designing such subsidies, some points have to be considered:

- Contrary to economic purists' opinion, subsidies are theoretically justified and applied in virtually every country globally. Agriculture subsidies however, still tend to be a rich-country practice. In South Africa, where we're striving to build an inclusive agricultural sector and correcting for past racial biases, subsidies to black farmers are justified.
- Most countries have programmes to help new farmers. South Africa, lacking this, sticks out like a sore thumb.
- While the past support given to white farmers was beneficial to those farmers and to the country as a whole, times and circumstances change: we cannot just re-implement past measures, but must tailor support to the circumstances of today, also taking into account the current fiscal constraints.

History shows that support for commercial (white only) farmers in South Africa started with the establishment of the Land Bank in 1912 and, after the recession post World War I, the establishment of the Farmers Assistance Board in 1925. Then followed investigations into the "poor white" problem funded by the Carnegie Foundation in 1928, and the introduction of labour training programmes and state assistance in creating employment. Industry support subsidies were introduced in the late 1950s, backed by agricultural research and development.

The withdrawal of this support to white farmers during the transition years (early 1990s) had two unfortunate consequences. Firstly, it necessitated the move to largerscale farming operations to benefit from economies of scale, leading to the growth of mega producers. Secondly, support measures, from direct subsidies to funding of research, were abolished. As a result emerging black farmers were bereft of the support services that previous regimes had denied them.

Unfortunately, all attempts to remedy this situation have been unsuccessful. Most support programmes became very bureaucratic, focused on individual cases, resulting in long delays in decision-making without having a broad-based impact. Unless this is changed, South African agriculture is destined to remain mostly untransformed, without hope for those smaller-scale family-farming operations whose development can do much to fuel growth and create employment.

What is needed is for the lessons from the past to be scrutinised for the development of a new support programme with rapid and sector-wide impact.

The support programme for new farmers should be linked to land reform, designed to create a more diverse and representative corps of farmers in South Africa. A useful starting point is to settle qualifying beneficiaries on the land already acquired by the State.

Selection of farmer candidates should be objective, strict and protected from political influence or patronage, to ensure placement of individuals with the disposition to succeed. Establishing any farm business is no small undertaking and therefore a sensible support programme that is not hamstrung by bureaucratic red tape must be in place.

Were such redesigned support to be implemented, it will play an essential role in ensuring successful land reform and will ensure that we build a new "crop" of commercially oriented black farmers.

Johann Kirsten is professor in agricultural economics and director for the Bureau for Economic Research (BER) at Stellenbosch University.

### FEED SOLUTIONS FOR TOUGH TIMES

As the single biggest input cost in the poultry industry, any saving on feed will benefit the bottom line of producers of all sizes.

Andries Gouws goes in search of solutions



# INPUT COSTS

**Soon after the first bombs** and missiles exploded in Ukraine, the shrapnel hit the world in the form of, among others, an uncertain global economy, higher inflation, more expensive energy, and grain prices that rocketed by up to 60% in some parts of Africa.

De Wet Boshoff, executive director of AFMA, says the status of Russia and Ukraine as the world's largest producers of fertiliser, wheat and sunflowers explains the pressure that the war is placing on the availability and prices of raw materials worldwide. "Add to this animal diseases worldwide, Covid, droughts in Brazil and Argentina and the rebuilding of pig herds in China, and the prices of raw feed materials can only go up."

While global dynamics are out of their hands, local producers can look to new technology, precision feeding and feeding strategies in general to help overcome the combined impact of significantly more expensive raw materials and modest meat price increases.

Dr Franscois Crots, group technical manager of Nutri Feeds, believes that poultry farmers in general and broiler producers in particular need to review the diets of their broilers with the help of their local nutritionists. The review should consider energy-to-amino-acids ratios and confirm if the diets are formulated to the optimal profit margin, given the change in macroeconomic raw material prices.

The trick, he says, will be to use cost-effective feeding programmes without compromising production. The feeding of chickens is very intensive and the ingredients of the ration are composed for specific conditions and precise production and profit targets.

"The opportunity is to review feed formulations to adapt not only to the changing macroeconomic environment but also to the latest broiler genetic potential," says Crots. In 2021, Aviagen presented data that indicated that the modern broiler genetic responds significantly to diets that are higher in protein and lower in energy.

Farmers could also seek to reduce mortalities caused by metabolic syndromes like Ascites and Southern Death Syndrome (SDS). Ascites

It is recommended that farmers review their broilers' diet at every stage of their development to ensure optimal nutrition









De Wet Boshoff, executive director of AFMA



Dr Franscois Crots, group technical manager of Nutri Feeds

#### **INPUT COSTS**

syndrome is fast becoming one of the most significant noninfectious causes of losses in the South African broiler industry, given that the modern broiler is genetically predisposed to develop this disorder due to its exceedingly fast growth rate and high oxygen demand.

The selection for rapid growth and efficient feed conversion has resulted in a broiler with such a high rate of metabolism that its heart is barely capable of producing enough oxygen to sustain the body. Inadequate oxygen levels trigger a series of events, including peripheral vasodilation, increased cardiac output and pulmonary arterial pressure, as well as right ventricular hypertrophy.

Although metabolic disorders are complex and interactions are not that clear, the solution is quite simple, says Crots: "You can control the growth curve through various feeding and management strategies."

#### **Precision nutrition**

The strategies Crots highlights boil down to precision nutrition, a goal that is increasingly easier to achieve thanks to technology.

Trouw Nutrition, for instance, has developed a system that makes it possible to measure the actual nutritional value of raw materials, whether purchased or produced on the farm, with the

Technology is making precision nutrition more achievable every day, with tools that enable farmers to test the nutritional value of raw materials themselves



same accuracy levels as lab testing.

The company's monogastric team lead, Mart-Marie Brand, says this enables farmers to exercise better control over the ration that is fed to their birds and make informed decisions that can improve the profitability of their enterprises.

The origin and seasonal nature of the availability of raw materials can have a major influence on the nutritional value of the ration. This in turn can have a great influence on the performance of the animals and/or the production costs.

"With Trouw's system, NutriOpt On-site Adviser, farmers can perform accurate analyses without samples leaving the site," explains Brand. "As such, it offers quality control and



Mart-Marie Brand of

#### **HELP FROM NATURE**

While the availability and prices of raw materials used in feed production are volatile, a Cape Town company, Inseco, has looked to nature to find a solution. For millennia, insects have been an important food source for humans and animals, providing natural protein, fats and other important nutrients.

Since 2017, Inseco has been producing various insect-based feed products that include a protein-rich flour called Entomeal, which contains a high-quality amino acid profile, lipids and micronutrients which will

hoost animals' health naturally

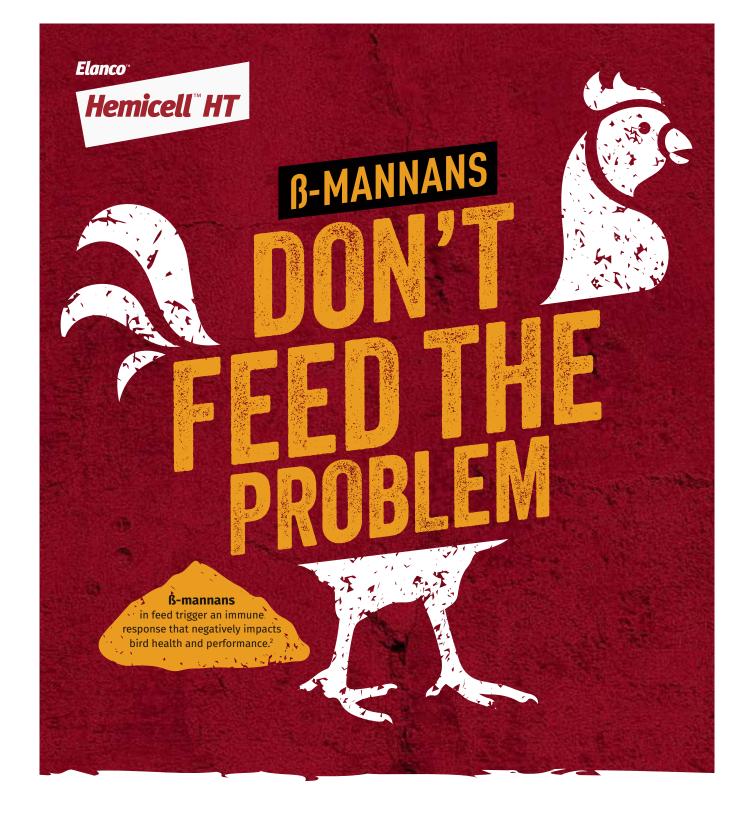
Another product with high protein content and immune-boosting properties consists of whole dried soldier-fly larvae. An ideal addition to poultry feed, it is a nutrient-dense source of protein for the chickens, supporting healthy immune functions by providing critical nutrients such as chitin

During the production of the protein-rich meal, high-quality natural oil is extracted. As an ingredient of feed, it is an easily digestible source of energy.



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1. Elanco Study Hemicell HT Cost saving calculator 2021

2. Anderson DM, Hsiao HY, and Dale NM. 2008. Identification of an inflammatory compound for chicks in soybean meal-II. Poultry Science 2008; 87: 159. REF-01075 Hemicell™ HT Reg. No.: V22663 (Act 36/1947) is a registered trademark for Elanco's brand of ß-mannanase. Composition: ß-mannanase 160 million units per kg (minimum) Registration: Elanco Animal Health, Co. Reg. No.: 1957/000371/107 Private Bag X119, Bryanston, 2021, RSA Tel.: (012) 657 6200 Fax.: (012) 657 6216 Hemicell™ HT, Elanco and the diagonal bar logo are trademarks of Elanco™ or its affiliates. PM-ZA-21-0173





#### **INPUT COSTS**

insights into your raw materials to guide your day-to-day use of these materials and improve performance, based on real-time advice."

With this information, the farmer can already assess how the different nutrients deviate from the targets set by their nutritionist. Reports are easy to share, allowing farmers and nutritionists to share information and advice.

#### Unique challenges and solutions

While also suffering the consequences of global forces, South Africa's small-scale and developing farmers battle additional challenges mostly related to insufficient knowledge, remote location and lack of economies of scale.

Fortunately, entrepreneurs like Katlego Gaoraelwe are starting to provide solutions. Gaoraelwe's Primetrade Feed plant in Makwassie supplies feed to many small farmers in the Northwest Province.

He started the plant, which can produce 30 tons of feed per day, eight years ago when he saw the market opportunity left by large feed companies that were not delivering feed to remote rural areas. Small farmers sometimes had to drive 150km to buy just one bag of feed. Gaoraelwe's answer was to establish depots in remote locations where customers can buy and collect feed. His feed is also packaged in 10kg bags that are easier to carry or transport in taxis.

Katlegoo Gaoraelwe started Primetrade Feed to provide quality feed to underserviced small farmers in the Northwest. At his factory (right and bottom) he packages feed in smaller bags for ease of transport



Katlego Gaoraelwe



If farmers order more than one ton of feed, he delivers it to them for free.

His customers are farmers who keep anything from ten to 6 000 hens and produce on average 2 000 broilers per cycle.

"Leading nutritional scientists visit my plant to help me produce the correct feed rations for my customers," says Gaoraelwe. He produces his own maize but as grain prices rise, his own product also becomes more expensive.

Training and information sharing is another service Gaoraelwe provides. "Most of my customers have no training and they often don't understand that with the correct feed they will produce more eggs or chickens. My branch managers and representatives in the field know the products they sell and inform the farmers about modern poultry farming."



WORLD EGG DAY QUIZ

#### **QUESTION 2**

Must eggs be stored in the fridge? Yes/No

# INPUT COSTS

Fermented feed is another option available to small farmers to reduce feed costs and increase production. According to Leonardt Thaphati, manager of developing agriculture at NWK, fermentation is nothing new and is a simple way to help chickens get the most benefit out of their feed. Fermentation enables better absorption of nutrients, which means you need less feed to achieve the same, or even better, production results.

Kgotlello Roda is a small farmer who ferments

#### FERMENTATION HOW TO



To make fermented feed, pour the dry feed you normally use into a container and add enough unchlorinated water to cover the feed. Cover the container with a cloth or lid that will allow in air, and store it in a cool place. Stir the mixture several times a day and by the second or third day the liquid should become milky and bubbles should form. Then you can drain and feed it to the chickens.

WORLD EGG DAY QUIZ

#### **QUESTION 3**

When does an egg contain more protein? **a)** Cooked or **b)** raw

her chicken feed and enjoys positive results. She farms with 300 layers, produces about 100 broilers per cycle and sells all her products to the local community.

Roda ferments the laying mash she feeds her hens, as well as the start and growth ration for the broilers. She explains: "Since I have been doing this, my egg production has improved a lot. The quality of the eggs is also better, the eggshells are stronger and the eggs have a better shelf life. The broilers also grow much better – they can weigh as much as 3kg when they are 11 weeks old."

While global affairs remain in turmoil, South African scientists, feed companies and creative entrepreneurs are finding ways to help local chicken producers feed their flocks better and, at least in some instances, for less, thus boosting the sustainability of an industry that is important for food security.

#### **USEFUL CONTACTS**

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#### **Trouw Nutrition**

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#### Inseco

info@inseco.co.za

#### **Primetrade Feed**

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# Building a future with digital expertise

When it comes to optimising livestock farming, digitalisation is the future, and Evonik and Porphyrio partner with farmers to offer the best solutions

Within the next two decades, according to Rabobank, the animal protein market is projected to grow by about 45%, and poultry is right at the front with annual growth rates of up to 2.4%. To keep up with this increasing demand, smart use of resources, efficiency, and precision is key: do more, use less.

Precision poultry farming technologies, from sensors to big data, can help farmers improve

productivity and decrease costs, while at the same time reducing environmental footprints. Ultimately, moving to the next stage of optimisation within the boundaries of sustainable production requires an even better understanding of the needs of the individual bird, along with a further integrated approach to farm management. Digital technologies, including the cloud, the Internet of Things (IoT) and big data, combined with animal science and biostatistics will enable the industry to get a much better grip on poultry production and gain an unprecedented in-depth knowledge of what really happens on a farm.

One major pillar of precision poultry farming is continuous collection and monitoring of a wide variety of farm data, from feed usage to health. With data farmers can make better informed decisions earlier in the process and create optimal living conditions for their flocks. This leads to improvements in yield, animal

health and welfare, technical performance, environmental impact, and – last, but not least – financial performance.

It is with these outcomes in mind that Evonik incorporated Porphyrio as part of its precision livestock farming (PLF) programme in 2018. Chantelle Fryer, senior technical account manager in animal nutrition at Porphyrio, describes it as a unique solution that combines

the nutritional expertise of the Evonik animal nutrition team with the latest big data technology and biostatistics, providing a key to giving optimal advice to livestock farmers.

Porphyrio has developed innovative systems for the broiler and table egg industries that use cloud-based, self-learning algorithms to predict farming outcomes. According to Fryer these systems take all crucial elements of production into account: feed, climate, health, welfare, and many more parameters.

"Our expertise is firmly rooted in animal science. In combination with the latest advancements in big data technology and biostatistics, Porphyrio stands for safety, reliability, and accuracy," she says.

Fryer explains that the Porphyrio systems have been developed in such a way that they can be operated by an individual farmer or a totally vertically integrated producer. "Lay

'Whether you're an individual farmer or a vertically integrated egg or broiler producer, the modular and functional flexibility of our systems means that any business can benefit'



#### **ADVERTORIAL**

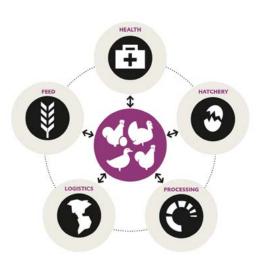
Insight and Broiler Insight are strong, innovative management tools for the poultry industry, designed to support managers in taking proper decisions concerning their daily business, as well as the strategic decisions they are facing."

**Turning big data into profit:** Porphyrio's expertise builds on the latest know-how of big data technology and biostatistics, combined with poultry science and poultry production. "This enables us to offer farmers systems to support them in optimising their business process to the fullest," explains Fryer.

**Seamless data collection:** Porphyrio gathers all data centrally regardless of location, the type of computers, sensors or software currently being used. Data can be collected automatically or entered manually.

**Accurate predictions:** Daily priorities, as well as long-term strategies based on scientific research, can be viewed immediately, streamlining production processes.

**Intuitive dashboard:** The dashboard is customisable with company-specific parameters. "This enhances the system's efficiency and is available in a language of your choice," says Fryer.



◆ The cloud-based system takes all crucial elements of production into account



■ With the Smart Farm Assistant from Porphyrio the effective collection and comparison of all relevant information on a farm becomes a simple exercise



**Internal benchmarking:** With a few clicks, any flocks (historical, actual) within an organisation can be compared easily for any technical and financial parameter, allowing farmers to see the effects of actions taken.

**Slaughter optimisation:** Supply of live birds to the processing plant or wet market is optimised in advance, taken into consideration growing cost and transport and processing costs.

**Health management:** Tracing back animal health-related issues is the key to moving forward, ensuring food safety in the poultry production chain and avoiding any additional recall costs.

Says Fryer: "Whether you're an individual farmer or a vertically integrated table egg or broiler producer, the modular and functional flexibility of our systems means that any business can benefit."

Thanks to Porphyrio's scientifically proven solutions, poultry producers at any scale have help at hand to optimise their business, online and in real time, based on short- and long-term predictions of the production process and the market.

With the experts in your corner, you can make better strategic decisions for your business. There is no better recipe for success.

For more information, visit Porphyrio.com or contact chantelle.fryer@evonik.com



Notices and important industry information distributed by SAPA

Compiled by Michael Acott

# Why the 12-month tariff delay is unacceptable

Broiler Organisation GM **Izaak Breitenbach** takes a stand against the suspension of the tariff

**SAPA was very disappointed** at the government's decision to suspend for 12 months the new antidumping duties it had approved against Brazil and four European Union countries.

We feel that the decision was contrary to the government's commitments in the poultry masterplan to act firmly against dumping. We also do not believe that there is justification for government fears that tariffs will lead to retail price increases.

SAPA remains a strong supporter of the masterplan, and we will be seeking a meeting with Trade, Industry and Competition Minister Ebrahim Patel to try to resolve the issues. We would like to get the antidumping duties imposed earlier than in 12 months, and we would like to work out with the minister the masterplan objectives for the next two years.

The suspension of antidumping duties against these five countries came just as SAPA was hoping to celebrate the completion of the trade strategy we set out three years ago. This included antidumping duties against nine countries that have been dumping bone-in portions to the detriment of local poultry producers.

Duties remain in force against four countries – the United States, Germany, the Netherlands and the United Kingdom. It's the duties against the other five that have now been suspended.

It was good news that the official ITAC investigation proved once and for all that Brazil, Spain, Portugal, Denmark and Ireland were dumping chicken here, and that this harms the local industry. That is now on record, and will support the new tariffs when they are imposed.

However, other concerns have

Izaak Breitenbach speaks up against the tariff suspension







▲ Antidumping duties are a critical part of the masterplan

arisen, which we will address with the government, including through the masterplan process:

- Imports from Argentina have increased to over 5 000 tons per month, fully replacing EU imports.
- Offal imports have increased dramatically and now constitute 18% of all imports.
- Australia is now the country with the biggest dumping margin of all exports to South Africa, even though volumes are small.

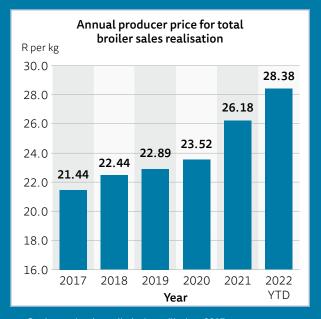
SAPA will remain vigilant and active on behalf of its members as we seek to protect their interests.



#### **QUESTION 4**

True or false? Cloudy egg white is a sign that an egg has gone bad

## Feed costs push up producer prices



Producer prices have climbed steadily since 2017
 Source: SAPA

**Producer prices for fresh** and frozen chicken increased in May 2022 as the prices of poultry feed continued to rise.

SAPA's monthly broiler producer price report showed that the price of fresh and frozen chicken rose to R29.21/kg in May, an increase of 2.8% on the previous month and 14.7% above May 2021. Of the total, 87.2% is frozen and the balance is fresh.

Frozen-chicken producer prices averaged R28.11/kg in May, an increase of 3.1% over April, and 15.3% higher than May 2021. Fresh chicken averaged R36.68/kg, 2.9% higher than April and showed an increase of 10.4% above the previous year.

Mixed IQF (individually quick frozen) portions of chicken averaged R29.18/kg in May, 3.6% above the producer price in April and 16.2% higher than in May 2021.

Feed prices, which comprise up to 70% of the broiler input cost, also rose sharply. SAPA's monthly feed-price indicator showed that broiler feed prices rose 4.5% on a monthly basis in May, and 15.7% on an annual basis. Breed feed was 5.5% higher than April and 21.9% above May 2021.



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#### MEMBERS' NOTICEBOARD



# Chicken set to increase market share



Consumption of chicken is expected to grow as other meat becomes even more expensive

**The importance** of chicken in South Africa's national diet is highlighted in the latest 10-year agricultural outlook, published annually by the independent Bureau for Food and Agricultural Policy (BFAP).

Chicken is South Africa's most popular and most affordable source of meat protein, and BFAP expects chicken to increase its market share over the next decade because it is more affordable than pork or beef.

BFAP's latest Baseline looks at agricultural developments from 2022 to 2031. It notes that food prices are rising and meat is considered a luxury product for most South African consumers.

It expects per capita consumption

of poultry to increase by 2.3kg by 2031, compared to lower consumption increases for beef (0.8kg) and pork (0.4%).

"Pork provides an affordable alternative to beef products for consumers under budgetary pressure, but it remains more expensive than poultry and is less widely consumed historically."

While consumption growth projections suggest that in the next 10 years poultry will increase its dominance in total meat consumption, BFAP sees short-term obstacles on that road to success.

Commitments made in the poultry masterplan induced investments in expanding domestic production and this could drive a further reduction in the share of imports over the next decade, while also offering opportunities for increased transformation in the industry.

"In the short term however, the sharp increases in production costs, resulting mainly from feed-price increases, but also other material inputs such as heating and distribution costs, along with service delivery challenges in many municipalities are placing the sustainability of these investments at risk," states BFAP.

The outlook identified infrastructure improvements and the management of agricultural diseases as critical for agricultural production, and particularly for meat exports.

"Failure to address disease-management constraints through improvement in animal health services is costing the (meat) industry and the country billions of rands in lost exports and South Africa is missing out on what is perhaps one of the greatest opportunities for inclusive growth in agriculture," states the report.

#### **MEMBERS' NOTICEBOARD**

## Bird flu: down but definitely not out

#### South Africa's poultry farmers

can feel relieved because there have been no recent outbreaks of highly pathogenic avian influenza (HPAI, or bird flu). But that doesn't mean they can relax, because the spread is worldwide and new outbreaks could occur here at any time.

This is the message from SAPA's Al monitoring report, covering the three months from April to June 2022. It warns that, in addition to the danger of new HPAI outbreaks, there is now also a risk of low pathogenic avian influenza (LPAI) which is circulating in North Africa and the Middle East, and has spread to sub-Saharan Africa.

"Very few cases of HPAI have been reported in SA in 2022, with the last cases in commercial flocks recorded in February this year," the report says.

"So although South African producers can feel relieved at this time, they need to remain alert and recognise that a new introduction of either HPAI or even a new strain of LPAI may happen at any time."

Since the start of the last outbreak in SA in March 2021, 3.7 million birds

have been culled, most of them in the egg industry. An estimated 0.6% of the national broiler flock and 9.6% of the egg flock have been culled.

The toll in other regions has been far higher. Numerous outbreaks during the northern hemisphere winter resulted in over 40 million birds being culled in Europe and a further 40 million in North America.

Various closely related strains are circulating and "it appears that the viruses have become endemic in wild-bird populations in Europe, which makes further outbreaks in commercial poultry almost inevitable," the report said.

The low pathogenic variety LPAI H9N2 has caused serious losses in flocks across North Africa and has more recently been confirmed in sub-Saharan Africa, with outbreaks in Burkina Faso and Uganda.

"Producers are advised to remain on the alert and continue to comply with HPAI protocols. The ongoing submission of test results to SAPA is an important part of the surveillance programme," SAPA said.

| HPAI CULLS IN SOUTH AFRICA: MARCH 2021 - JUNE 2022 |                        |                         |
|--|------------------------|-------------------------|
|  | Number of birds culled | % of the national flock |
| GGP, grandparents                                  | 0                      | 0.0                     |
| Broiler breeder rearing                            | 45 000                 | 2.2                     |
| Broiler breeders                                   | 464 582                | 5.2                     |
| Broilers   | 291 000                | 0.3                     |
| Total broiler industry                             | 800 582                | 0.6                     |
| Grandparents                                       | 0                      | 0.0                     |
| Layer breeders                                     | 0                      | 0.0                     |
| Pullet rearing                                     | 209 000                | 2.8                     |
| Laying hens  | 2 727 514              | 12.6                    |
| Total egg industry                                 | 2 936 514              | 9.6                     |
| TOTAL INDUSTRY                                     | 3 737 096              | 2.6                     |

# Imports down, but may rise as tariffs fall away



After a series of increases to May this year, broiler imports dropped sharply in June and July, according to official import statistics. The biggest decrease has been in frozen bone-in portions such as leg quarters.

Broiler imports in July were down by 22.9% on June, and were 35.4% below July last year. Despite the substantial volume drop in July the total of broiler imports for the first seven months is still slightly above the same period in 2021.

After a decline of 27% in June, bone-in volumes were down a further 62.4% in July, and were 66% lower than in July 2021.
Bone-in imports comprised 36% of broiler imports a year ago; in July this was down to just under 18%.

Brazil remains by far the largest source of South Africa's chicken imports (82.7%). Provisional antidumping duties on Brazil's bone-in chicken fell away in June, which may result in increased imports from August onwards.



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#### References

 Jennifer R. Hess, MS; and Norman A. Greenberg. 2012 The Role of Nucleotides in the Immune and Gastrointestinal Systems: Potential Clinical Applications. Nutrition in Clinical Practice Volume 27 Number 2 April 2012 281-294
 A. Gil 2002 Modulation of the immune response mediated by dietary nucleotides. European Journal of Clinical Nutrition (2002) 56, Suppl 3, S1–S4



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More local chicken needed, says NAMC

**Local chicken production** needed to increase to meet rising demand, according to the latest poultry price survey from the National Agricultural Marketing Council (NAMC), which is released every quarter.

The report, covering the three months to July 2022, said retail prices of chicken had remained elevated because production increases had been restricted by bird-flu outbreaks and rising feed costs due to the conflict in Ukraine.

"Local production needs to pick up to meet the rising demand for the most affordable source of animal protein, but this will depend on a number of factors such as biosecurity, global commodity prices improving and local feed prices declining in the medium term," the report said.

It noted that South Africa's chicken imports continued an increasing trend in 2022, rising by 6.5% in the first six months of 2022 compared to the same period in 2021.

Comparing second quarter prices to the previous year, it said producer prices of fresh chicken had risen by 21.6%, frozen chicken by 11.2% and individual quick frozen (IQF) portions by 10.8%.

Compared to the first three months of 2022, producer prices in the second quarter were up by 8.6% for fresh chicken, 4.8% for IQF portions and 4.6% for frozen chicken.

The highest retail price increases compared to the second quarter of 2021 were non-IQF frozen chicken portions (12.2%), 2kg IQF portions (11.1%), fresh chicken portions (1%)

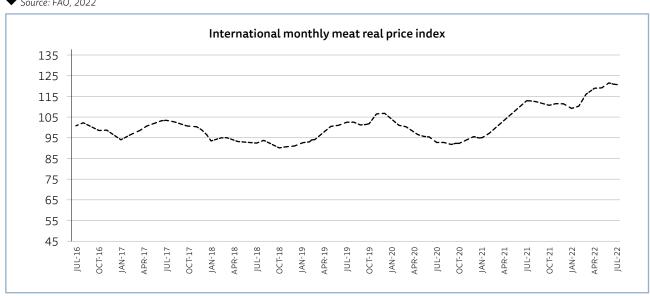
and chicken giblets (0.3%). Compared to the first quarter of this year, retail prices increased by 4.7% for non-IQF frozen portions, 3.5% for IQF portions and 0.9% for fresh portions.

Retail prices dropped on a quarterly basis for whole fresh chicken (-3.5%) and chicken giblets (-1%).

NAMC also noted that chicken, pork and beef prices were rising rapidly worldwide, with poultry prices at an all-time high.

All meat prices are rising fast worldwide

✓ Source: FAO, 2022



#### **MEMBERS' NOTICEBOARD**

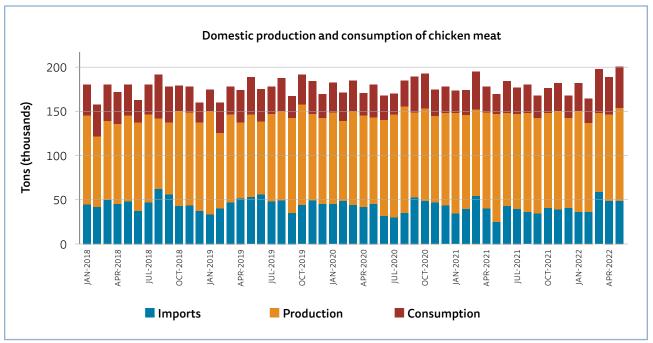
# South Africans are eating more chicken

WORLD EGG DAY QUIZ

#### **QUESTION 5**

Eggs are good for which sense? **a)** Hearing **b)** sight or **c)** smell

Consumption is calculated by adding imports to production and subtracting exports Source: SAPA



#### South African consumption of

chicken topped 200 000 tons a month for the first time in May this year, according to statistics in SAPA's monthly broiler production report.

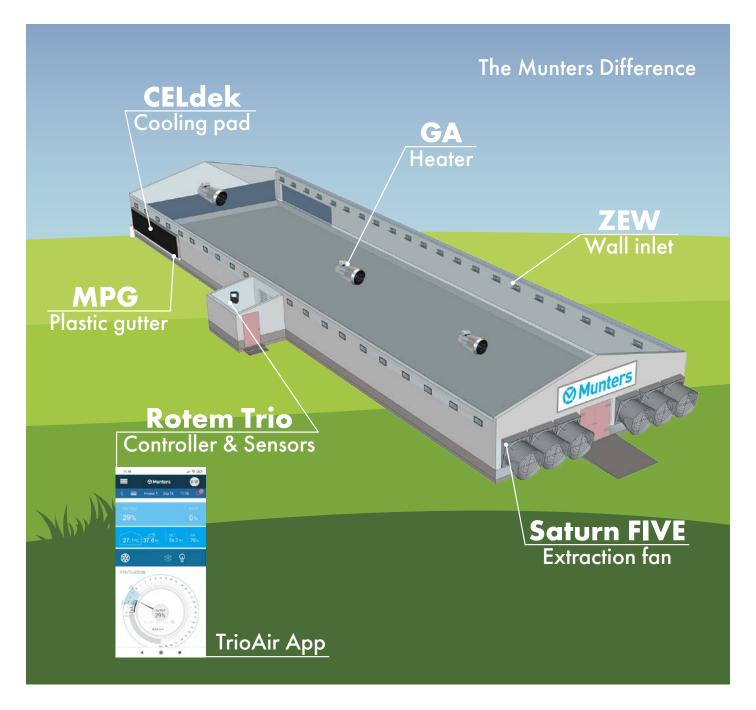
Consumption in May 2022 was 200 421 tons. It is calculated by adding imports to local production and then subtracting exports. Local production in May was 164 463 tons, and imports totalled 40 221 tons that month.

That is the highest monthly consumption figure for the past five years.

Chicken imports as a percentage of local production dropped from 25.2% in 2018 to 18.8% in 2021, the statistics showed.

The report also indicates that in the first five months of 2022 imports have been averaging 20.9% of local production of chicken.





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Munters solutions are developed to meet every farmer's need, for any livestock application, in any climate zone.

By providing the perfect climate, Munters enable you to grow animals under optimal conditions, increase productivity and make your farm more sustainable.

The innovative product range includes extraction fans for tunnel and minimun ventilation, evaporative cooling pads, heaters, advanced controllers and more.

Munters South Africa ensures reliability, high performance, superior logistics and customer aftercare to support you every step of the way, from dimensioning your farm to post-sale service when needed. Munters is ready to take South African agriculture to the next level. Are you?



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Trio manages all aspects of the farm, from air quality, ventilation to livestock performance, while being future proof with IoT technologies and remote management



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## Food Safety Agency (Py) w AND QUALITY - OUR BUSINE OUR PASSION

#### **NOTICES**

#### AVI AFRICA CONFIRMED



SAPA is happy to be able to confirm that 2023 will see the return of the AVI Africa conference, after a three-year break due to Covid.

The conference is scheduled to take place on 6 - 8 June 2023 at Emperor's Palace in Johannesburg, and registration for delegates opens on 1 November. Diarise and watch this space, and the SAPA website, for more information as it becomes available.

#### **GET YOUR QUALITY CERTIFICATION**

Have you applied for the Food Safety Agency's certificate of good standing yet? This coveted mark of quality shows that your operation complies with the FSA's regulations and the Agricultural Product Standards Act. To obtain this mark and certificate, the FSA will perform a quality-verification inspection of your facility to ensure that your operation ticks all the boxes, after which you will receive a certificate and 2500 labels that can be used on packaging. There is no cost to the inspection or the certificate. Food safety is everyone's priority, and SAPA recommends that all members commit to this process. To find out more, contact Armand Visagie, armand.visagie@afsq.co.za, call 012 361 1937 or visit

www.foodsafetyagency.co.za 🛣



#### **OUR QUALITY PROMISE**

Namib Poultry Industries (NPI), a subsidiary of the Namib Mills Investment Group, has been supplying premium chicken to the Namibian market for over a decade. Since the establishment of our poultry farm and processing plant in May 2012, consumers from all walks of life have come to love our fresh and frozen products for their unbeatable quality, competitive pricing and great taste.

Yet our belief that You Deserve Better extends beyond the delivery of premium poultry products.

We are also fully committed to food security and poverty alleviation in Namibia. As such, we support the development of communities and local enterprises through a number of innovative outreach programmes and CSR initiatives.

#### **IMPROVING QUALITY OF LIFE**

In addition to creating more than 700 direct jobs in the local market, our innovative community outreach and development programmes have positively impacted the income and livelihoods of over 2,000 Namibian households

Since the launch of our RealGood Chicken Kapana initiative in September 2020, we have held over 34 training sessions countrywide to equip vendors with new skills to enhance their product offering and generate a reliable source

Furthermore, we empower small-scale farmers through the sale of day-old chicks and the provision of training in poultry farming and business skills. Since its inception, the initiative has provided numerous households with a healthy source of food, as well as a steady source





### QUALITY PRODUCTS YOU CAN TRUST

Our food safety management system is fully compliant with the requirements of the Food Safety System Certification 22000 (FSSC 22000), which also includes ISO 9001 certification. This means that - from plant to plate - you can be sure we never compromise on quality.

Our quality promise starts with organic feeding regimes for our chickens, followed by chemicallyfree, organic processing in our state-of-the-art poultry plant. With delivery every 48 hours and a distribution network that spans the country, we ensure that only the freshest Namibian chicken reaches our numerous registered outlets.

# Tough times for small-scale farmers



▲ Many small farmers have stopped farming due to adverse conditions

Many of South Africa's small-scale poultry farmers are struggling. This is the message from SAPA's latest sixmonthly survey, relating to the first half of 2022.

The survey covered subsistence farmers (fewer than 1 500 broilers per cycle or fewer than 500 layer hens) and small commercial farmers (between 1 500 and 40 000 broilers per cycle or between 500 and 50 000 layer hens). It also looked at small-scale contract growers, hatcheries and abattoirs.

Of the 420 farmers interviewed, 67 had stopped farming, a sharp increase on the 38 who had stopped farming in the second half of 2021. Most of them hoped to resume farming when conditions improved.

A variety of difficulties was reported, from shortages of day-old chicks to disease, weather, high feed costs,

poor market conditions, lack of profitability, water and electricity supply issues and financial problems.

There were also a number of smallscale farmers seeking funding to expand, buy equipment, feed or chicks, or to renovate their facilities.

SAPA encourages small-scale farmers to join the association and share in the benefits of membership. As a representative organisation, SAPA cannot provide financial assistance, but it is able to provide advice and guidance, and to point farmers to others who can help.

The report advises those thinking of going into poultry farming to do their homework thoroughly before investing in equipment. They should research the local market and input costs to determine whether the price they can get for chickens or eggs they might produce will yield a profit.

SAPA recommends that farmers work closely with DALRRD extension officers, as they have been trained to support emerging farmers.

Contact SAPA on 011 795 9920 for more info on poultry equipment or medication and availability of day-old chicks. Contact your local DALRRD or extension officer for veterinary services or support via the Letsema or Comprehensive Agricultural Support Programmes.





#### Your Safety Belt in the Food Industry

Your factory is *Listeria* and *Salmonella* free, chemical swabs and monthly/daily checks in place. But still you worry. You know *Listeria* and *Salmonella* will be back. This time, maybe even catch you unaware and consume your time, shut you down, damage your brand...



Sanitisers are inadequate



Chemicals are failing



Antibiotics are unsustainable



### YOUR SOLUTION TO LISTERIA AND SALMONELLA CONTAMINATION

Have you ever wondered what is happening beyond what the eye can see? Has it ever crossed your mind that millions of microbes exist around us, on the surfaces we touch and on the food we eat? And, have you ever worried that despite our best efforts with soap and sanitisers, bacteria might, at some point, overwhelm us completely?

Well, to our relief, bacteria cannot overwhelm our ecosystems because of nature's natural predator of bacteria – the BACTERIAPHAGE.

Bacteriophages are viruses that exist in abundance in nature – typically, you will find them in wastewater systems, the ocean, fermented food products and your gut! Where there are bacteria, there is a bacteriophage close by that can gobble it up. But there's a catch. Each bacteriophage is specific to one type of bacteria. This is both limiting and beneficial, and here's why:

Sanitisers and chemicals target all types of bacteria in a microbial community, this means that all of them are placed under selective pressure to survive and may produce resistant characteristics that will eventually allow them to beat the sanitisers and chemicals and survive. It's practically survival of the fittest!

However, with bacteriophages, in a microbial community, these phages

will target one specific type of bacteria and leave all the other bacteria perfectly intact. This means that there is little/no chance of resistance developing not only in the target bacteria but also in all the other types of bacteria there is to worry about.









#### LET'S USE A REAL-LIFE SCENARIO TO MAKE THIS TERMINOLOGY APPLICABLE.

A company is battling to manage *Listeria* and *Salmonella* contamination on their chicken products during processing.

Despite deep cleaning, increasing their chlorine applications to the limit, and good hygiene practices, they still find *Listeria* and *Salmonella*. This is a very puzzling situation because all the other bacteria of concern are absent. There are two problems here:

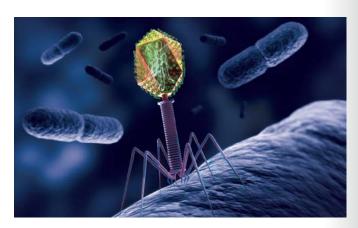


1. Increasing chemicals/sanitisers to manage *Listeria* and *Salmonella* alone is placing pressure on all the other bacteria that are not problematic, which may also become resistant.



2. Chlorine has a special relationship with *Listeria* and *Salmonella* where in some cases, it may select for the growth of *Listeria* and *Salmonella* rather than the inhibition thereof.

This company decided to apply a *Listeria* and *Salmonella*-specific phage solution (PhageGuard S) via mist spray application just before they started portioning their chicken and also just after the chlorine application step because **chlorine alone was not sufficient anymore.** The results showed that *Listeria* and *Salmonella* incidence in the neck skins before chlorine application was **60%**, while after phage application, it decreased drastically to **23%**. Furthermore, this meant that the company had the option to decrease their chlorine concentration to lower levels now that the problem pathogen was managed with phages. More can be done to ensure even better results, such as applying the phage just before packaging to avoid cross-contamination in the process – the possibilities are endless!



Phages are **non-GMO** and **organic** and come in a **water-based solution**, which is better for the environment and the sensory properties of your product.

Food safety today requires an **integrated approach**. The days of relying solely on sanitisers and chemicals are behind us. The power of nature is primarily underestimated, where the answer may be **safer, more effective, and more sustainable.** 

Do you want to know more about phage use for Listeria and Salmonella control? Read about it here: Wessels, K., Rip, D., & Gouws, P. (2021). Salmonella in chicken meat: Consumption, outbreaks, characteristics, current control methods and the potential of bacteriophage use. Foods, 10(8), 1742.

For further information contact Professor Pieter Gouws at the Centre for Food Safety - (021) 808 2609

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# GROWING AN INDUSTRY THAT WORKS BY THINKING OUTSIDE THE BOX

Could these tough times be the moment when local producers shake off the shackles of dumping with out-of-the-box thinking that changes the industry? Players of different sizes share their business solutions
By **Charmain Lines** 

For some people, adversity doesn't seem to exist as they pursue their dreams. In 1929, as the world was about to be plunged into the Great Depression, brothers Roy and Walt Disney made their first animated movie for the big screen. Three years later, in the midst of the Depression, Revlon launched the world's first pigment-based red nail polish. Microsoft was started in 1975 when the US was in dire economic straits, and Steve Jobs launched the iPod in 2001 – in the wake of the dotcom bubble's disastrous burst.

Today, South Africa's chicken producers could hardly face a worse economic outlook.

Feed, fuel and other input costs keep climbing, consumers are strapped for cash, the exchange rate is wobbling, service delivery failures threaten water and electricity supplies... Adding to this seemingly insurmountable list of woes was the government's recent announcement that antidumping tariffs against the worst saboteurs of the local market

Producers have invested heavily to increase production - but need market access for success

are suspended for the next 12 months.

In light of the lack of engagement with the industry prior to the announcement and the reaction of co-signatories to the masterplan afterwards, the spirit of this landmark agreement seems to be under threat. This is of grave concern, given that the industry needs the masterplan to be fully implemented to realise its potential to contribute to economic growth, create jobs and improve South Africa's food-security status.

As a longer-term consequence, the

tariff suspension could leave recent infrastructure investments made by the large integrated producers stranded, while shrinking the market of small and mid-size producers. Instead of cheaper chicken, as Minister Ebrahim Patel wanted, the tariff suspension might result in fewer local chicken producers and less diversity in the supply chain – without consumers enjoying material savings.

Three very different chicken producers share their approach to these trading conditions.

## MICRO AND SMALL OPERATORS: ISONDO FARMERS CO-OP

**Ellen Mokau's chicken story** started during the dark days of lockdown. Stuck at home, the chemical engineer by training learnt the basics of broiler raising online and started a small business. Through her social-media following, she realised that many small farmers' dreams were limited because they don't have land.

Taking her inspiration from the African tradition of stokvels, she devised a model that is simple and sustainable: a group of farmers pool their resources to rent land, set up infrastructure, and get the necessary working capital together. In this cooperative structure, they all contribute equally and share equally in the profits.

Mokau's first co-op had 20 members and each contributed R10 000 to establish the broiler business near Hammanskraal. The second co-op followed a slightly different model with 31 members who each contributed R4 500 over a period of three months. In November 2020 a local chief granted the second co-op a 10-year lease on trust land in the Stinkwater area north of Pretoria and the co-op built a R70 000 chicken house with its pooled capital.

The dream has, sadly, run into problems. Isondo Farmers isn't currently trading due to dwindling member contributions and problems with lowgrade chicks and high feed costs.

But Mokau still believes that the co-op model is the way to go for small operators. "It is a good model to raise

capital, instead of waiting for banks or the government, and individual investors get better returns from a co-op than putting their money in the bank," she says.

The secret to success, Mokau has learnt over the last two years, lies in management. Unlike a stokvel that is a vehicle to save money, a broiler coop requires day-to-day management. "The challenge is that people behave like silent investors, instead of equal owners," Mokau says. "You must put an operational management team in place and properly renumerate the people who work hard."

While waiting for the right time to rejuvenate Isondo Farmers, Mokau is putting her experience to good use in Leruo Farm Wealth Pty Ltd,

a new company she has formed, in which people can invest on a profit-share basis. "The response is good; everybody knows exactly what they are putting in and getting out. It's working for me to look at poultry in a different way for now."

On the side, Mokau keeps the co-op dream alive by still training farmers and using the members of the co-op to supply customers in her network.

#### **GET IN TOUCH**

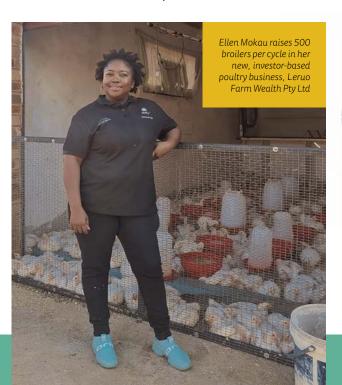
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@laellecreatives





#### **QUESTION 6**

True or false?
Eating eggs can
reduce stunting
in children
aged under 10

## MID-SIZED OPERATORS: PHETOGO'S NEXT STEP





**In October 2021,** Phetogo Farming Enterprise's further processing plant opened for business at the Tshwane Market. A modest two to four tons per week of packed chicken portions were produced by the four staff members.

Fast forward a year and more than 65 tons of product a month leaves the facility that now employs 27 people, including a quality-control officer and drivers doing deliveries.

Phetogo Farming Enterprise was the next step in a long game that started in 2006 when Tumi and Lebo Mokwene were given a chance to learn more about commercial-scale broiler farming from Kroon's Gourmet Chickens and acquired their first farm.

Soon thereafter the couple founded their company Phetogo, whose Setswana name means "a change" and which signals the transformation they want to bring about in South Africa's farming industry.

In 2016, 10 years after buying a farm outside Pretoria to start broiler contract growing, Phetogo secured a contract from Astral to grow broilers on its Festive farm in Lanseria, Gauteng. The combined output of the two farms is around 385 000 broilers per cycle supplied to Astral.

During 2021, while the country was slowly recovering from the Covid-19 pandemic, Phetogo's next chapter started. Phetogo Farming Enterprise was registered as an agro-processing business with three directors, Tumi and Lebo Mokwene

and Rolan de Jager, and they signed a lease with the Tshwane Market for a building that housed an existing processing facility. The facility was reconfigured with funding from the Gauteng Provincial Department of Agriculture and Rural Development (GDARD). Technical support on the layout and design was provided by Astral and JF Equipment, while SAPA provided project management assistance. The business also procures its stock from Astral.

Phetogo's customers are a combination of independent retail stores, wholesalers that service the hospitality industry and even funeral directors who provide full-service packages.

"We don't want to overcommit on one huge customer as yet," says De Jager. "We are still defining, testing and building our brand and we need the freedom to do so.





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#### **GENETIC DIVERSITY: GRAVIS**

#### The established broiler breeds

serve the commercial industry well, but two local entrepreneurs have shown the potential inherent in alternative breeding stock.

Forty-one years ago, Ken Baxter started developing what would become the Gravis, a hardy, easy-to-raise and extremely fertile broiler. The business grew and these days, Abilene Poultry supplies day-old chicks from its base near Piet Retief in Mpumalanga to as far as the Botswana border. Current production is 200 000 chicks per week, although the hatchery's capacity is 300 000.

Buying 80 000 chicks per week, Abilene's biggest customer is Kroon's Gourmet Chickens near Brits, while Mikon Farming near Mbombela is its longest-standing customer – a relationship that spans 30 years. Baxter proudly calls Gravis the "best broiler in South Africa" and tells of people who travel up to 1 000km every week to collect their chicks. At 80 years of age, Baxter is ready to pass on the baton, and fortunately for genetic diversity in South Africa, a buyer for Abilene is waiting in the wings.

Turn to **page 44** for another genetic-diversity success story



"We are not trying to be the cheapest; Phetogo chicken is a premium, quality product that is backed by the full package of superior service."

Another element to the Phetogo brand story is that good food has to be accessible, especially to the people who produce it. Therefore, as of July this year, people who work on Phetogo's broiler farms can order meat from the processing plant.

Mokwene explains, "The typical story is that the people working the land can't afford to eat what they grow, and we are changing that."

This approach also ties in with the Phetogo team's belief that one of the ways to fight dumping is to help consumers understand what they are eating, so that they can compare like with like.

Bringing change, building bridges and opening conversations will protect the industry, create jobs and ensure food security.

"We want to create a brand that speaks to the story of having big dreams that people can relate to," says Mokwene.

Their plans are driven, in part, by developments at Tshwane Market where a pilot project was recently launched that allows listed agents to sell to the market's registered buyers. Phetogo has just become such an agent and will launch its brand at the market in the next weeks.

#### **GET IN TOUCH**

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**Abilene Poultry:** 072 469 5533

**Tin Stuf:** 015 004-1132

#### TIN STUF DOES THE CAN CAN

Just when you thought you've seen everything that can be done with chicken, a 26-year-old Limpopo native surprises you with chicken feet and necks in cans. **Eiren Drake**'s company is called Tin Stuf and his product range is available in Shoprite stores.

"The idea was the brainchild of my late grandfather, Spencer, and it started in my grandparents' kitchen on the farm," says Drake. Drake Snr canned mopani worms and beef lips, among other foodstuffs, but Eirin only got involved when chicken feet entered the picture. They moved the cannery out of the kitchen and into commercial viability in 2017, launching Tin Stuf mid-Covid in 2020.

"Tinstuff", Drake explains, is local slang for canned food, usually pilchards. "We're proud to take our lead from the vibrant street-food scene in SA's townships," he says.

Chicken feet have long been a favoured fast food in urban townships. Preparing them is anything but fast and requires refrigeration facilities. Tin Stuf products, in contrast, have a shelf life of around two years and only need to be heated before eating. No prep and no fridge required, increasing convenience and decreasing costs for consumers and vendors alike.

"We want to become an ally for fast-food township entrepreneurs," says Drake. "They're the gatekeepers to the largest market of people who enjoy the food we produce." It is estimated that SA's street-food market uses around 65 000 tons of chicken feet per year. Tin Stuf



competes for the same customers that buy the 4 million cans of pilchards sold every month in SA. However, pilchard supplies are dwindling globally due to overfishing and climate change. "Our products are uniquely positioned to assume the sustainability mantle both on price and supply," says Drake.

The factory employs 31 people and operates at 30% of capacity at present. The strategy was to focus on growing demand for the flagship product range, and thanks to the Shoprite deal, plans are afoot to start producing several new products soon.



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## LARGE INTEGRATED OPERATORS: RAINBOW GOES BACK TO BASICS







As the company that introduced largescale, integrated chicken production to South Africa, Rainbow is no stranger to the art of making plans to overcome present-day challenges in the interest of future success.

Marthinus Stander, managing director of Rainbow, cites the company's significant investment in sustainability over the past few years as a case in point. "The waste-to-value project at our Rustenburg and Worcester plants that generates sustainable energy from waste

products will stand us in good stead in future," he says.

Building on this foundation, Rainbow is now looking at environmentally friendly ways to mitigate water and power shortages to prevent business disruption.

As far as the suspended antidumping tariffs are concerned, Stander says that damage control is key: without protection, you have to bring costs down. Fortunately, cost curtailment is already at the heart of Rainbow's turnaround strategy. The tariff suspension has just tightened the focus.

"For us it means a return to basics," says Stander. The R220-million investment to reinstate a second shift at the Hammarsdale plant in KZN, for instance, is predicated on the basic principle that running half a plant does not halve the costs. The reality is that volume on its own dilutes c/kg costs.

The second basic in Rainbow's strategy is to focus on who and what the business is, while the third is all about getting better at understanding

## THE BIG SOLUTIONS ISSUE



consumer needs. Having moved its head office to Gauteng, the leadership team is closer to the company's customers and other stakeholders in a literal sense. Much effort is also going into increasing Rainbow's market relevance by giving more value to consumers who need it most. Examples include the Rainbow range of polonies and different pack sizes to suit different budgets.

"We see this phase of cost cutting and business stabilisation as preparation," explains Stander.
"Input costs are at record highs, so we have to respond creatively and comprehensively. The great thing is that this exercise means we will be

perfectly prepared for the good times – like an athlete primed to compete."

Without the shackles that predatory trade practices impose, Stander believes that chicken can achieve its full social and economic potential. The local industry is competitive and Covid has taught countries around the world the value of self-sufficiency in terms of food.

"South Africans love chicken – the whole chicken," says Stander. "In the absence of dumping, we can be self-sufficient, create jobs, develop rural areas, and let supply and demand determine prices without external interference. Within that dream, our competitiveness will allow us to



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export as the masterplan delivers on its export facilitation objectives, such as government-to-government protocols, food-safety labs, and independent residue and food-safety monitoring."

South Africa's chicken producers are not taking market conditions lying down. In every corner of the industry plans are being made, dreams are being dreamt and businesses are being built. Times are undeniably tough, but as history has shown over and over again, many a great business is born from challenging circumstances.

#### **GET IN TOUCH**

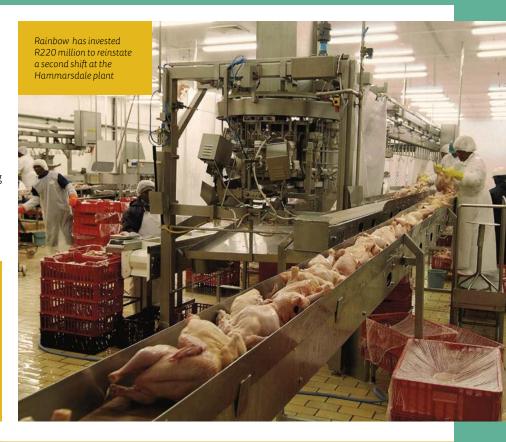
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## GENETIC DIVERSITY: BOSCHVELD



#### **Boschveld Indigenous Chickens** is

the creation of Mike Bosch, a cattle breeder who started experimenting with chickens to control ticks on his cattle. Given that his pest-control chickens would live outside and fend for themselves, hardiness was the trait Mike wanted more than any other.

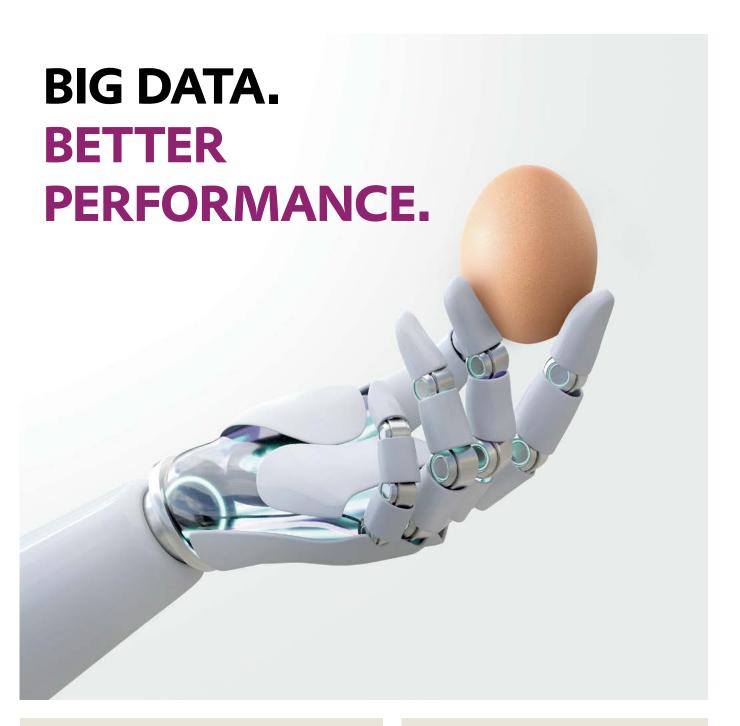
His research into indigenous African chickens led to a three-way cross between the Ovambo, aggressive, agile and good at ducking predators, the Venda, a productive layer with strong maternal ability, and the Matabele, a big chicken with good meat on its bones.

The Bosch-bred fowls proved their worth and soon he could halve the number of times a year he needed to

dip the cattle. An article in a farmers' magazine changed Mike's chicken hobby into a thriving business when orders started streaming in from small-scale farmers who recognised the value of Mike's crossbreed.

Meat and egg production aside, genetic rejuvenation is the greatest benefit Boschveld chickens bring to rural farmers. Decades of inbreeding in village, backyard and smallholder flocks results in stunted scrub chickens with little disease resistance and even less productive capacity. "A couple of decent Boschveld roosters make all the difference," says Bosch.

In addition to supplying local farmers, Bosch exports his breed to Malawi, Angola, Zambia, Botswana, Swaziland and Namibia.



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#### BROILER GROWTH AND THE IMPORTANCE OF THE RESIDUAL YOLK SAC

The period directly after hatch is most critical as the chicks digestive and immune systems are immature and changes encountered are abrupt. First, the switch to aerial breathing; second, the commencement of thermal regulation; and third, transitioning from yolk lipid nutrition to oral nutrition of complex dietary constituents. Simultaneous with these changes is substantial development of the gastrointestinal tract (and digestive organs) and maturation of active immunity. At hatch, the chick weighs approx. 42 g and will reach 200 g by 7 days of age. That is equivalent to 22.5 g average daily gain or up to 5 times hatch weight.

Only part of the yolk sac content is utilised during incubation. At around embryonic day 19, the residual yolk is internalised in the abdominal cavity of the embryo and provides nutrients to the chick up to 5 days after hatch. The exact contribution of the residual volk toward the nutritional intake is unclear with studies delivering ambiguous results. However, these studies do suggest that the residual yolk may have an important role after hatch, contributing to weight gain in the first days after hatch. It appears that the relative contribution of the residual yolk to the dietary energy and protein intake depends on the moment, amount, and composition of the feed consumed. Some studies suggest that chickens fed immediately have higher yolk utilisation than chickens where feed is delayed, which might be related to higher intestinal activity due to peristaltic movements. However, other studies comparing immediate or delayed post-hatch feed intake up to 72 hours did not find differences in volk utilisation or residual yolk weights. The reason for ambiguous results is unclear but might include differences in incubation temperatures, brooding temperatures, or breeder age, but much is unknown about how these factors affect post-hatch yolk use. Owing to a lack of available literature, it is also unknown how embryonic yolk utilisation or residual yolk weight at hatch is related to post-hatch performance, health, and welfare.

Modern broiler genetics offer strong postnatal growth, and it is suggested that the metabolic rate of the embryo has been increased during incubation. This would result in greater utilisation of the yolk content during incubation implying higher embryonic metabolic heat production and a lower residual yolk weight and hence lower energy reserves at hatch. When chickens hatch with a smaller amount of residual yolk and/or different residual yolk composition, development and performance may be affected in later life.

Weight and the total solid amount of the residual yolk at hatch seem to be decreased over a period of 88 years.

Metabolic heat production during incubation tends to be slightly increased in the last few decades. This increase is influenced by a number factors, including strain, flock age, egg size, and incubation conditions. The extent of the increase in metabolic heat production seems to be related to a slight increase in the efficiency of yolk solid utilisation as well. It should be noted that variation across studies for these variables is considerable and that data on strains in the past is largely lacking.

It can therefore not be concluded whether the lack of differences between old and modern strains are due to genetic selection, changed management and incubation conditions, or moment of sampling. It is remarkable that with the genetic progress, improved management, and incubation conditions over the last 88 years, which have had considerable effects on post-hatch performance, effects on yolk utilisation efficiency and embryonic metabolic heat production are limited.

Egg size and incubation temperature affect residual yolk weight at hatch, whereas breeder age determines the nutrient composition of the residual yolk. Egg storage duration and post-hatch brooding temperature seem to play a minor role. However, there is a scarcity of reliable published data concerning factors affecting yolk utilisation and residual yolk weight at hatch and the relationship with post-hatch performance.

Table 1 demonstrates the effects of year of publication, storage duration and incubation temperature on chicken weight, yolk free body mass and residual yolk weight at hatch.

All things considered, it needs to be emphasised that the utilisation of residual yolk lipids for energy supply is a wasteful process

as specific nutrients in the residual yolk are much more valuable functionally by providing maternal antibodies for passive immunity and phospholipids, choline, and triglycerides for cell membrane development. Such wastage can be avoided by ensuring chicks have access to feed soon after hatching.

In summary, the volk residue can serve as a nutrient and energy reserve in the absence of feed for up to 72 hours post-hatch. Its innate function, however, is to be a supply of phospholipids for the formation of cell membranes in the intestine and maternal antibodies to the bird. When the chick ingests feed, uptake and utilisation of yolk is increased due to the physical action of the gut drawing the yolk material into the intestine via Meckel's diverticulum to support the intended roles. Early access to high quality crumble is critical to successful broiler growing in the first week of life and there are numerous nutritional interventions and additives that contribute to optimal performance.

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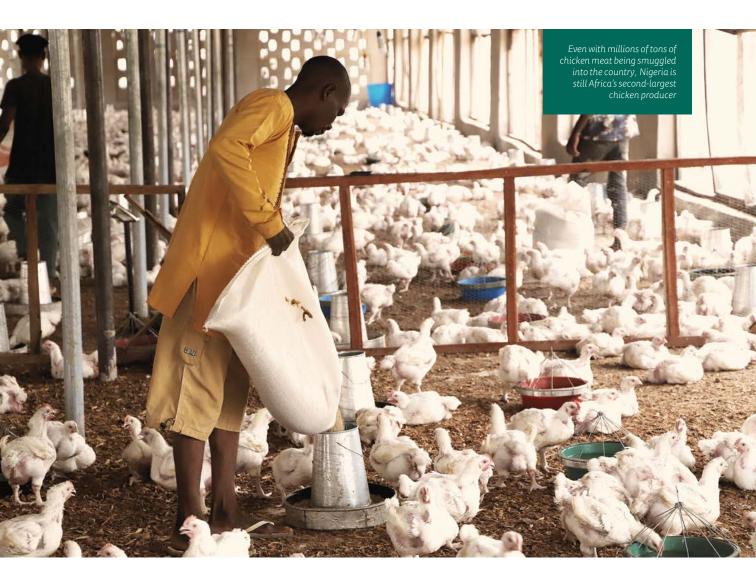
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Brett Roosendaal Epol - Nutrition Executive epolinfo@rclfoods.com

**Table 1.** Average (min-max) initial egg weight and chicken weight, yolk-free body mass (YFBM), and residual yolk weight at hatch of broiler chickens based on studies between 1930 and 2018.

| Factor of Influence        | N¹  | Chicken<br>Weight (g) | YFBM (g)         | YFBM (%)         | Residual Yolk<br>(g) | Residual Yolk<br>(g) |
|----------------------------|-----|-----------------------|------------------|------------------|----------------------|----------------------|
| Year of study              |     |                       |                  |                  |                      |                      |
| All studies                | 126 | 43.9 (33.6-53.4)      | 38.1 (30.3-44.8) | 86.8 (72.8-94.4) | 5.6 (2.3-12.1)       | 12.8 (6.4-27.2)      |
| ≤2000                      | 2   | 43.4 (39.8-47.0)      | 37.1 (35.1-39.1) | 85.7 (83.2-88.3) | 6.3 (4.7-7.9)        | 14.3 (11.7-16.8)     |
| >2000                      | 124 | 43.9 (33.6-53.4)      | 38.1 (30.3-44.8) | 86.9 (72.8-94.4) | 5.6 (2.3-12.1)       | 12.8 (6.4-27.2)      |
| Storage Duration           |     |                       |                  |                  |                      |                      |
| ≤2000                      | 57  | 43.4 (33.6-51.4)      | 37.8 (30.8-43.0) | 87.1 (76.7-94.4) | 5.6 (2.3-10.1)       | 12.8 (6.4-23.3)      |
| >2000                      | 20  | 42.6 (36.9-46.7)      | 38.5 (32.6-41.4) | 88.0 (80.8-91.6) | 4.7 (3.0-8.3)        | 10.9 (8.0-17.9)      |
| Incubation Temperature/EST |     |                       |                  |                  |                      |                      |
| <37°C                      | 2   | 40.3 (39.5-41.0)      | 34.8 (34.5-35.0) | 86.4 (85.4-87.3) | 4.8 (4.4-5.1)        | 11.8 (10.7-12.9)     |
| 37°C - 38.2°C              | 73  | 44.5 (33.6-53.4)      | 39.0 (30.3-44.8) | 87.5 (79.3-94.4) | 5.5 (2.3-9.6)        | 12.3 (6.4-20.7)      |
| >38.2°C                    | 14  | 42.0 (37.2-47.7)      | 34.7 (32.2-37.4) | 83.0 (72.8-91.1) | 7.2 (3.1-12.1)       | 16.8 (8.2-27.2)      |





How a spice firm named Agricorp International is now making a huge investment in Nigerian chicken production – and in the country's next generation of agricultural leaders. By **Treena Hein** 

As it is in other countries, chicken is very much in demand in Nigeria. However, because production doesn't nearly meet demand and it's been very difficult for companies to legally import chicken, it's being smuggled into Nigeria in huge amounts.

"The chicken market is estimated to be 1.4 – 1.6 trillion kg (1.095 billion birds) a year right now, and our current capacity is about 11 billion birds a year," explains Kenneth Obiajulu, CEO and co-founder of Agricorp International, a spice-production company founded in 2018, which has also empowered over 5 000 smallholder farmers to increase their incomes by about 20% while providing them with better market access.

In 2019, the Central Bank of Nigeria

estimated that over 1.2 million tons of poultry meat were smuggled into Nigeria from the Republic of Benin. Still, of all African nations, Nigeria is the largest egg producer and the second-largest chicken producer.

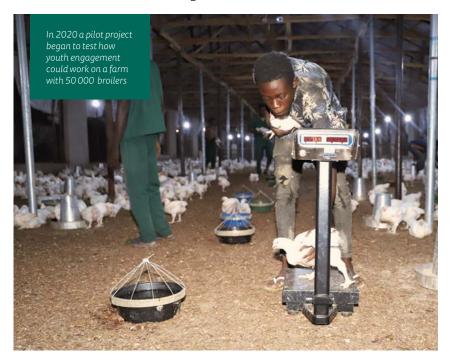
#### Chicken strategy

Agricorp International decided to do something about this shortfall and is now investing over 20 billion Nigerian naira (around R768.7 million) in the production, processing (and eventually, export) of chicken. Obiajulu is leading the charge, leveraging his experience working for the Bill & Melinda Gates Foundation, the Rockefeller Foundation, the World Bank, Heineken and more.

"Our company is big on impacting lives and communities. We saw the deficit and wanted to invest," says Obiajulu. "We note the opportunity of being able to employ at least 100 000 people directly and indirectly, and so we've put together an investment thesis for livestock, starting with poultry."

Last September, Agricorp secured some funding to establish its poultry business and expand its spice businesses and is actively pursuing more.

The Agricorp International chicken strategy involves the company purchasing 142 poultry operations across the states of Kwara, Kogi and Nasarawa and either expanding them or bringing these operations up to capacity. This alone will raise the country's chicken production by at





least 3 million birds yearly, but Obiajulu reports that "this is less than 10% of our 2025 goal. By the end of that year, we're aiming to have 1 000 farms in areas that already have poultry production and new areas. This will be about 40 million birds per year."

Obiajulu and his team are confident that processors will be able to handle these numbers by running additional shifts and adding processing lines. Agricorp already has contracts in place with the biggest processors in the country and also owns a processing plant that will come online soon. "We have several well-established hatcheries in Nigeria and we have a contract with one of them as well as a contract with a feed mill," says Obiajulu. "Collaboration with partners is crucial. It's a winwin situation. Their capacities will increase as our capacity increases. This will be how we will reach 100 000 jobs by 2025."

#### **Engaging youth**

In the hopes and plans of Agricorp International, many of those jobs will be filled by young people. As is the case



elsewhere, most farmers in Nigeria are over the age of 65 while young farmers are the future. To engage youngsters, Agricorp International has rolled out its Project Eclipse 2025, which aims to involve young people working as entrepreneurs in chicken production and offers excellent opportunities in processing plants.

"During my first job at Heineken, they had a project with the term 'eclipse' and I liked that – that you eclipse everything with what you are doing," says Obiajulu. "We knew that engagement was needed but how do we engage young people? How do we ensure they're educated about how the system works, what to do and where the present and future opportunities lie? We decided to ask them. They said

direct hands-on involvement and a share in the profits are what's needed."

Agricorp International listened. In 2020 a pilot project began to test how youth engagement would work on a farm with 50 000 broilers. "We brought in three experienced people, two farm managers and a veterinarian, and took on 17 young people with no experience," explains Obiajulu. "They were trained using a training pen to give them an overview of how production changes from week to week. Then they got their own test pens to look after. In the process they learnt husbandry and how to keep mortality down."

Temperatures in Nigerian poultry barns can be very high, so proper use of ventilation is critical. Obiajulu explains that producers have modified pen height and use cross ventilation to get better results with less electricity.

The pilot project is being expanded and, at the same time, Obiajulu and his team are identifying potential entrepreneur models. One involves having every flock managed by two young poultry farmer entrepreneurs. They receive a salary but also a share of the profits. They receive all the inputs on credit (chicks, feed, vaccines, other support), and depending on how many birds reach 1.6 - 2 kg and other parameters, they earn half the net profit. Another model involves young people writing a full business plan to build and operate a barn on their family's land.





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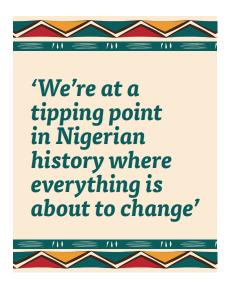




#### A bright future

Poultry feed is expensive in Nigeria and last December the Poultry Association of Nigeria called for the government to ban the export of maize so that it can remain available for poultry feed mills. The call was made at the 2021 Nigeria Poultry Show which was themed "De-Risking the Nigerian Poultry Industry: Stabilising Critical Inputs and Market Prices for Sustainability". Obiajulu recognises that there are challenges such as feed cost and more, but overall, he sees a bright future for large-scale chicken production in Nigeria.

"We have everything in Nigerian agriculture," he says. "Every state has arable land and 45% of Nigeria is arable but has not yet been cultivated with maize, cassava and more. There is more than enough water, land and workforce. Our biggest challenge as a company is to secure financing to support up-scaling. That's basically my full-time job. I've met with potential investors from Nigeria, Dubai and the UK, and I will also be approaching investors in North America and elsewhere. The market opportunity is there and we need to increase our chicken-production capacity as soon as possible. There is lots of room for



Agricorp is purchasing 142 poultry operations across the states of Kwara, Kogi and Nasarawa, and expanding them or bringing them up to capacity

investment and we'll have a range of investors "

The most exciting aspect for Obiajulu is being there on the cusp of a major change. "I have a quote on my office wall from Shakespeare's Julius Caesar where Brutus speaks to Cassius about a tipping point in the political arena of the time," he says.

"We're at a tipping point in Nigerian history where everything is about to change. We are moving from zero forward and igniting passion in young people. Already, people are telling us that we are doing amazing things, so we are already having a direct impact to inspire our country."

This feature was first published on Poultry World.









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#### **ADVERTORIAL**



The results of a SADC study of this highly contagious poultry disease shows why vaccination is important

#### Infectious bursal disease (IBD)

is a highly contagious viral disease affecting chickens, turkeys and ducks. It's caused by a virus first identified in the Gumboro district of Delaware in the United States and is now prevalent across the globe.

The disease, which can manifest in a clinical or subclinical form in young chicks, targets the bursa of Fabricius, causing atrophy and severely suppressing the immune system. Clinical disease normally has a sudden onset in birds aged between three and six weeks. Maternal-derived antibodies (MDA), age and breed can influence the severity of the disease, but mortality can reach 40% or higher. The subclinical form often goes unnoticed, but as it destroys immature lymphocytes, it suppresses the immune system and can lead to secondary infections, which can affect production results and contribute to economic losses.

A specific variant-type IBD was first identified in South Africa in 2004, and named D1054/85. In a survey

conducted between 2019 and 2022, samples were collected from both layer and broiler flocks across the SADC region to determine this strain's prevalence and its possible impact.

The survey showed that Variant D was present in a fifth of the samples in 2021 – a significant percentage – with some displacement noted in 2022. In general, it appears more prevalent in broiler than layer flocks, but this could be due to contributing factors such as shorter downtime periods and insufficient cleaning and disinfection more often seen with broilers.

Variant D remains prevalent in South Africa, but has been identified in Botswana as well.

Other IBDs were also identified in the study, including KZC-110, a very virulent IBD (vvIBD), which was mainly seen in Zambia and Malawi, and MG8, which is localised to Eswatini.

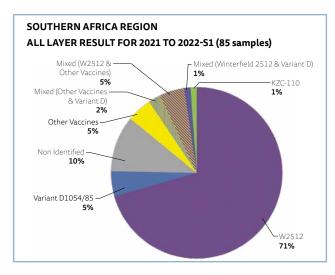
A further study was conducted in 2021 with an isolate collected in South Africa to determine the pathogenicity and impact of this variant on highly susceptible, specific-pathogen-free

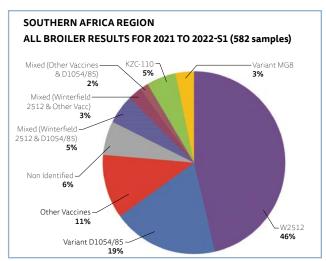






#### **ADVERTORIAL**





(SPF) layers. The study also looked at the level of breakthrough of MDAs at early ages in commercial broilers through the monitoring of bursal damage and regeneration.

Variant D was found to consistently perform as a subclinical infection while potentially being immunosuppressive when infecting the host early, as is expected from a variant strain. Its ability to break through higher MDA levels result in a transient total lymphocyte depletion in young commercial broilers, followed by mild to good bursal regeneration with various levels of lymphocyte repopulation.

The effect of this is that some flocks may perform well with it being present while others may not, depending on factors not fully under control – including time of infection, co-infections and challenges in the suppressed period. In the latter group these immunesuppressed birds may not respond well to vaccination against infectious bronchitis, coccidiosis and Marek's and Newcastle disease, with obvious consequences.

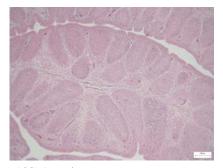
It may however have less of an impact if the challenge in the immune-suppressive period is less severe, or if it takes place only after the

flock has successfully been vaccinated with a live IBD vaccine.

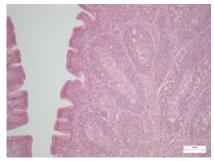
This underlines the significance of the two most important tools of IBD prevention: effective cleaning/disinfection and biosecurity to delay the time of infection, and effective vaccinal protection as early as possible.

Therefore, even if this variant IBDV just has a "vaccine-like" impact on young birds, it is potentially harmful and costly.

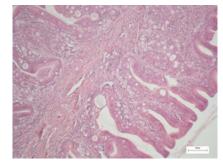
There is thus good reason to eliminate this variant from the environment and to advocate the displacement of it with an immunecomplex vaccine such as Transmune.



13 DPI: Acute phase



13 DPI: Chronic bursitis – less affected



13 DPI: Chronic bursitis – seriously atrophied

SPF Birds: SID/SSIU Ceva Phylaxia/Study id.: P126 – 01/2021

For more info, contact Dr Eben Pfeifer at Ceva Vet Services, 011 312 4088, or visit www.ceva.co.za

Transmune Reg. No. G 3457 Act 36/1947. Registration holder: Ceva Animal Health (Pty) Ltd.







# THE POWER OF CONTRACT RELATIONSHIPS

Contract growers play a key role in the poultry ecosystem, and also enable producers to deliver on their masterplan commitments. We speak to George de Kock of Country Bird Holdings, who shares insight into the management of these invaluable relationships

#### When presented with the challenge to

expand and increase production, as the poultry masterplan asked of South Africa's chicken producers in 2019, companies such as Country Bird Holdings (CBH) knew that in addition to their own internal investments, they would have to rely on their contract growers to come on board too. According to CBH agricultural director George de Kock, the support they received was hugely gratifying, and a testament to the power of these complex, long-term relationships between a large integrated producer and its contract growers.



#### **PARTNERSHIPS**

## Can you quantify the importance of contract growers to a big company such as CBH?

Based on our integration business model in South Africa, contract growers are partners and an integral part of our business. We like to believe that there's a special relationship between our business and that of the growers who rear broilers for our Supreme brand. It is our view that success at grower level means success in terms of the product coming into our abattoirs. Obviously we then strive to keep our contract growers in a favourable performance space, technically as well as financially, and together we aim for high performance at the lowest cost into our processing facilities.

## How many growers do you work with, and are they all long-term relationships?

CBH partners with around 65 broiler contract growers based in the Northwest and Free State, all the way from Zeerust through to Thaba Nchu. Long-term agreements are indeed the norm and this will always be our preferred approach because we believe in the power of these partnerships, such as that with Grace Kgomongwe. Grace and her family business, Moatswi Trust, started producing for Supreme around nine years ago on their Zeerust farm. Through healthy attitudes and a solid relationship we have mentored one another to the point where Grace has doubled her production, with a further 50% expansion in the pipeline. I can honestly say that both parties enjoy our partnership and look forward to more of the same.

## Do you sign up new growers every year and are there many applications from aspirant growers?

Opportunities are limited for new growers to enter our business but these do come about during growth phases such as the one that's







#### **PARTNERSHIPS**



just occurred this past year. New growers entering our business tend to be entrepreneurs and also farmers engaged in other sectors of agriculture. As for aspirant growers entering the industry and the frustrations involved, that is a discussion for another day, but we believe there are plenty of opportunities that are lost due to red tape and lack of timely funding.

What are the minimum requirements for you to consider signing someone up - what qualities do you look for in a prospective contract grower?

'We have to keep in mind that we thrive off one another and both parties need to remain financially healthy'

Considering our partnership approach we on attitude and how we see a relationship evolving with a potential contract grower. Considering our partnership approach we focus Proof of funding ability is always going to be a key driver as the project cost of this type of endeavour is frequently a barrier to entry. Location and specific proximity of their land to Supreme Poultry operations is a further consideration that determines realistic consideration that determines realistic

opportunity. Once these three criteria are addressed, we may start firm negotiations.

#### So you sign someone up - what are the next steps? Do you provide specific training for new growers?

Our business has a structured team of broiler experts who have only two tasks, namely protecting the assets and interests of our broiler business and working to make contract growers successful. New growers will receive all the necessary guidance and coaching required to make them successful. This support to growers doesn't guarantee

success but together with a committed contract grower and decent equipment our success rate is superb.

#### And long-term growers? Is there a programme to help them stay on top of best practices?

It is indeed critical for continued optimal performance to stay abreast of the latest trends and shifts in requirements of the modern broiler bird. We are all aware of the strides made in genetic potential of the broiler, and as this potential increases, the sensitivity to how broilers are managed, and the demands on the grower increase exponentially. So we offer support in the form of three roadshows a year to which all growers are invited. We also host grower days with talks, presentations and discussions relating to production best practices, and so on. Earlier this year, for instance, we hosted arguably the best poultry ventilation expert globally, Michael Czarick of the University of Georgia in the US, at a grower information and training day.

## In managing contract grower relationships, what are the key challenges and how do you motivate growers to excel?

As with most relationships, building trust by delivering consistently what you promise is the best way to workable business relationships with growers. To some extent there will always be a conflict of interest, where growers see their income as priority and our organisation viewing the lowest-cost broiler into the plant as priority. As long as both parties keep in mind that we thrive off one another and that both parties need to remain financially healthy, disagreements are limited to incidental situations which are quickly remedied. Growers need to be selfmotivated within the scope of their own business. Our best growers are those who are driven by success - be it financial success, the feeling of accomplishment, or the satisfaction of being great at what they do. This holds true for success in anything, really, doesn't it?

## How can people find out more about opportunities to become a contract grower for CBH?

As mentioned earlier, opportunities are limited, but anyone who have enquiries can email Sonet Roux at sroux@cbh.co.za.



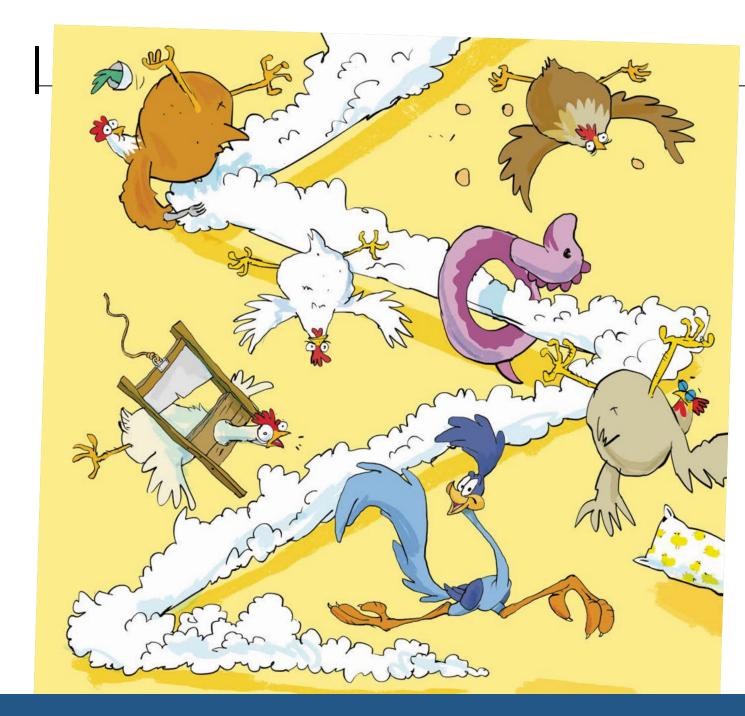
## **EXPANSIONS THAT BENEFIT THE MASTERPLAN**



Contract growers have contributed significantly to CBH's ability to pledge growth in output, and in job creation.

According to George de Kock seven of the company's longterm growers have invested or committed to invest a total of R336 million in expansions and/or building of new infrastructure to allow them to raise more broilers between 2021 and 2023. This is leading to a projected extra delivery of 20.8 million broilers per year to the business, and the creation of 122 new jobs on these seven farms.

The largest single investment by an individual grower amounts to R144 million over the three years, which will create up to 52 new job opportunities.



## Lazy Feathers and the Roadrunners

Illustration Jason Bronkhorst

Just as it is with people, it turns out chickens come in two types – introverts and extroverts. **Simba Kakora** recalls his childhood discovery

Most people eat chicken almost every day and go through life thinking that chickens are all the same. Yes, they each have feathers, a beak and two legs, and of course once you boil, roast, sauté, or however you decide to cook your bird, it all kind of looks the same once it's on your plate, in a takeaway box or piled up in a greasy brown paper bag.

But for you to think that chicken A is the same as chicken B is an erroneous belief that needs to be debunked. The truth (plus science) is that chickens, like humans, are different, and unique in their own unique way.

How do I know all this, you may ask? I'm no chicken psychologist or analyst; no, I'm just an ordinary guy who was raised by a chicken farmer – my mom. God bless those petite hands which tenderly reared thousands of chicks till they reached slaughter weight, and made us bags of money.

Growing up I was exposed to lots of chickens, becoming sort of an expert in this feathery field. Well, "expert" enough that I can tell you a bit about the two main types of chicken we like to eat. Hens that lay our breakfast eggs... well, that is a whole other story, for another day.

In my childhood, in Zimbabwe, two distinct types of chickens were raised, that were as different as day and night.

The first type that I became well acquainted with at a very young age, and which I know you're familiar with, are broilers. These are the introverts of the poultry world, and all chicken farmers know that these birds are a gold mine on two legs.

I had a special nickname for these inhabitants of our chicken coops: Lazy

Feathers. At a young age, this was how I characterised a Lazy Feather:

- Lazy Feather is very fond of just sitting on its behind all day. They're what we'd call a couch potato, no pun intended considering how well their meat goes with potatoes.
- You'll quickly get bored of staring at Lazy Feathers – there's not much action in that chicken coop.
- Lazy Feather loves to eat, but they're not about going to find that food. All they know is to wait upon the powers that be to feed them.
- It's highly unlikely Lazy Feather will peck you – after all, who'd dare bite the hand that feeds them, plus it's really just too much of an effort.
- Lazy Feathers are resigned to being confined inside for the duration of their short lifespan – it's just a few weeks on sweet earth till they're slaughtered. You're guaranteed they wouldn't attempt a prison break of any kind.
- And lastly, and perhaps sadly, Lazy Feathers don't put up much of a fight when it's slaughter time. It's as if all that silent meditation in their house has prepared them for this inevitable final moment, and they accept their demise without as much as a squawk.
- Lazy Feathers' meat is very soft and succulent and doesn't take too much time to cook.

Despite all this, Lazy Feathers are the reason why some famous global takeaway companies (which we'll not name) came into existence, and are earning millions of dollars every year.

The second type of chicken I fondly

remember is called a Roadrunner.

I first got to know about Roadrunners many years ago when I visited my grandparents in the rural areas. When I got there, I was surprised that the chickens there had so much freedom, roaming around the homestead as if they owned the place.

Having been accustomed to introverted broilers, aka Lazy Feathers, seeing these feathery scavengers roaming around made me proud. Extroverts, just like me! Finally, I thought to myself, a successful jailbreak by an active Lazy Feather.

But then, after careful observation, I noticed that these birds did kind of look different from our Lazy Feathers back home.

My mom confirmed it when she called these guys Roadrunners. I was surprised by this name, considering there weren't even any proper tarred roads in that area. Which roads do they run on, I naively wondered.

My young mind began to suspect that all those famous "why did the chicken cross the road" jokes were inspired by this bunch. It was much

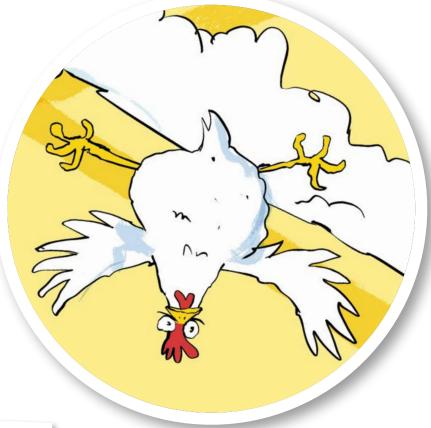


#### **HUMOUR**

later that I learnt that these are more popularly known to the rest of the world as freerange chickens.

These guys have their own set of characteristics, I worked out:

- A Roadrunner is a free and active bird. Not for them the confinement of a chicken house.
   It's like watching Big Bird roaming around
   Sesame Street.
- A Roadrunner scavenges for its food. They are not the type that looks forward to being fed on a silver platter. They put an effort into hunting for their meals, and eat almost anything they come across.
- Roadrunners are very independent birds. I'm not sure which Great Battle they fought to gain this independence, but wherever it took place, I'm pretty sure a lot of feathers were lost along the way.
- Male Roadrunners are very fierce and will fight you if you get in their way. A quick way to anger them is to try and cage them.





Simba Kakora aka The Comic King is a Zimbabwian comedian and blogger. Read his blog here: www.mufasasson.blogspot.com

- Roadrunners bring forth plenty of chicks, ensuring that their lineage grows to exponential numbers, and they live longer than Lazy Feathers.
- A Roadrunner will not let you slaughter it that easily. It will run for its life, Usain Bolt style.
- A roadrunner's meat is very tough and takes a lot of time to cook.

As different as these two types of chicken are, they do still have one thing in common... and it happens to be the most important thing. Whether they're lazy or a runner, introvert or extrovert, they are, inevitably, delicious in the end.

Just ask anyone who has sampled this undisputed centrepiece star of the dinner table, and licked their fingers afterwards.

#### WORLD EGG DAY QUIZ

#### **QUESTION 9**

How many eggs are produced in SA every year? a) 78 – 80 million eggs b) 2.4 – 4.2 billion eggs or c) 7.7 – 8.4 billion eggs

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## **ON THE WIRES**

Virtual reality for chickens? See what else is happening in global poultry news

Compiled by Charmain Lines

## Poland's duck farmers eye top spot



Duck production is increasing at a

"cosmic pace of growth", according to figures released by Poland's National Chamber of Poultry and Feed Producers (KIPDiP). If all goes according to plan and projection, Polish poultry farmers will achieve new production records in 2022, possibly unseating Hungary as Europe's second biggest producer of duck meat.

France is currently the biggest producer by far, but considering that the Polish duck population is expected to increase by 40% to 50% on 2021, the French position might not be unassailable in the long run.

Last year, Poland had 18 million ducks, compared to a mere 3.2 million

a decade ago. The 2022 projection is 25 to 27 million birds.

According to KIPDiP, the strong upward trend stems from the huge demand for duck meat in Europe, bird flu outbreaks in France that also affected duck farms, and the fact that Polish people are slowly but surely beginning to embrace duck meat as a part of their food basket.

In 2021, France produced 177 000 tons of duck meat, Hungary 90 000 tons and Poland 57 000. Germany and Bulgaria were a distant fourth with 20 000 tons each.

On the back of the strong export demand, Polish duck meat exports are growing faster than exports in any other livestock segment.

## Local could be the key



The fact that consumers worldwide are more interested in local food than ever before is a golden opportunity for local producers, said Jennifer Bartashus, a Bloomberg Intelligence analyst, at the 2022 Chicken Marketing Summit in Braselton, Georgia, in the US.

According to Bloomberg's data, 52% of consumers think local perishable foods are of higher quality, 49% believe local foods are fresher and last longer, and 42% are willing to pay more for local foods. Given this data, chicken and poultry producers should make a special effort to emphasise the local status of their products to consumers.

These insights are worthwhile to note for South African producers too. Anecdotal evidence suggests that local consumers, including those in low-income households, prefer fresh and therefore locally produced chicken. People often comment on superior taste and value, and that the chicken even smells better while cooking.

Given that antidumping duties have been suspended for 12 months, a flood of chicken from particularly Brazil is expected. One of the ways to counter the impact of this influx is to galvanise consumers behind high-quality, locally produced chicken so that whenever possible, they will buy local.

### AI keeps Europe's birds under threat



France is bearing the brunt of the largest ever outbreak of highly pathogenic avian influenza (HPAI) in Europe. The country accounts for 68% of all recent cases, followed by Hungary at 24%. No other EU country recorded more than 2%.

Based on national reporting to the European Commission, there were a total of 2 398 outbreaks of HPAI during the 2021/2 season. Some 46 million birds were culled in the affected establishments.

Between 16 March and 10 June 2022, almost 1 200 cases were reported in 28 EU/EEA countries and the UK, with 750 of these in poultry, 410 in wild and 22 in captive birds. During this most recent reporting period, 86% of the poultry outbreaks

were secondary infections due to the spread of HPAI between farms.

Perhaps most worrying is the Commission's conclusion that HPAI has become endemic in wild-bird populations in Europe. This means that poultry farmers can expect it to be present throughout the year, with the highest risk in autumn and winter months.

In the UK, environmental groups have called for the government to ban the release of gamebirds to avoid a "catastrophic" avian flu outbreak. Shooting of reared pheasants and partridges begins on 1 October. The virus has been detected at least nine times in wild and farmed pheasants in England, Scotland and Wales since early 2021.

## Viewing virtual reality could improve layer health

#### Researchers at Iowa State University

in the US have found that showing indoor layer hens virtual-reality scenes of birds living in outdoor environments reduced indicators of stress in their blood and gut microbiota. The virtual-reality scenes also induced biochemical changes related to increased resistance to *E. coli* bacteria.

In this pilot study, which was reported in the peer-reviewed journal Frontiers of Science, 34 hens from commercial layer flocks were exposed to the video recordings over five days. The scenes, which were projected on all four walls of their housing, showed chickens in indoor facilities with access to an outdoor fenced scratch area and unfenced open grassland.

A control group of hens of the same size and age in the same

type of housing was not shown any recordings. The test was done during the 15 weeks after hatching when the hens were being moved from pullet to egg-laying facilities – a period generally regarded as stressful.

The study's co-lead author, Melha Mellata, associate professor in the Department of Food Science and Human Nutrition, says that the study's results suggest that exposing layers to video of ordinary, outdoor chicken behaviour could be a relatively inexpensive way to reduce infections and the need for antibiotics in egg production.

Future collaborative research will likely focus on uncovering the neurochemical mechanisms that explain how visual stimuli can bring about changes in the chickens' intestines.



## WORLD EGG DAY QUIZ

#### **QUESTION 10**

True or false? A fresh egg will float in a glass of water; if it settles at the bottom it is no longer fresh

#### **ASK THE EXPERTS**

#### Vaccination know-how

Your handy cut-out-and-keep guide to vaccines, as explained by Nick Stevenson

#### 1 Why do we vaccinate poultry?

Vaccination plays an important part in biosecurity and health management of your flock. A vaccine helps to prevent a particular disease by triggering or boosting the bird's immune system to produce antibodies that fight the invading organisms.

Just like a human baby gets vaccinated to prevent diseases, so should our poultry flocks.

Vaccination and natural infection cause the same biological response, namely the bird produces antibodies that fight the current disease invasion and prevent future invasions by the same organism.

The difference, however, is that

infection caused by natural invasion is uncontrolled and can therefore cause severe damage and even death. Vaccination, in contrast, provides a way of controlling the result with minimal harm to the bird.

Vaccines are generally fragile products, some of which are live but in a state of suspended animation (frozen). Others are dead. All of them have a finite life that is governed by the way they are handled, stored and used.

Handling and administration procedures also influence the potency of many vaccines and consequently the level of immunity the bird develops.

## How complicated is it to administer vaccines and where can I learn how to do it correctly?

Administration of vaccines on a rearing farm is complicated, time-consuming and extremely costly. This is best left to the specialists who are experienced and trained to do this.

Administration on a layer or broiler farm is not difficult or complicated, but it does need to be done correctly to ensure that your birds get the best protection possible.

Organisations such as SAPA and KwaZulu-Natal Poultry Institute (KZNPI) offer courses and can provide referrals to training officers.

#### What are the diseases we vaccinate against and when in the production process is each needed?

There are numerous diseases we vaccinate against, both common ones and those that are current or have historically affected the birds. These include Marek's disease, Newcastle disease (NCD), infectious bronchitis (IB), infectious bursal disease (IBD), infectious laryngotracheitis, fowl pox and fowl cholera.

Most of the vaccination work is done on breeder/rearing farms under the control of a veterinarian. A vet will decide on a vaccination programme to be administered during the rearing phase. Vaccinations not only protect the parent bird, but also give the progeny the best protection via maternal antibodies, passed on by mothers to the young.

However, you'll be required, as a

farmer, to continue boosting certain vaccines on your farm.

Broilers, with their shorter life, have a fairly standard on-farm programme which involves en masse administration either via drinking water or spray.

Broiler chicks should be vaccinated with at least an NCD, IB and possibly an IBD vaccine at the hatchery and thereafter at least one other of each vaccine should be given on the farm.

Layers will generally arrive from the rearing farm as a "point-of-lay" bird (ready to lay), and they'll be fully vaccinated. However, they'll also have to be boosted with at least NCD and IB – via drinking water or spray – every four to six weeks to ensure that they remain protected.

#### Where should I get vaccines from?

Vaccines will generally be supplied into the market through veterinary wholesalers, distributors, co-ops and feed/medicine suppliers. Always use a reputable supplier so you can get good advice and know the vaccine has been stored and handled correctly.





#### 5 How are the different vaccines administered?

Aside from those already mentioned, the main methods are:

**Intramuscular injection** – this will be done on a rearing farm under strict control and is not normally done on commercial farms. This method involves the use of a hypodermic needle or similar equipment to introduce the vaccine into the muscle (usually the breast) of the bird. Automatic syringes make the technique relatively quick and easy and doesn't harm the bird. Care must be taken to ensure that the correct dose is administered to each chicken and the equipment should be checked regularly to ensure this. It is also important to ensure that the needle doesn't pass through into an organ and that other unwanted organisms are not passed on through contaminated vaccine or equipment. Contamination can be prevented by good hygiene and vaccine-handling procedures.

**Subcutaneous injection** – similar equipment as for the above technique is used, but the vaccine is injected under the skin, usually at the back of the neck, and not into the muscle. Care must be taken to ensure that the needle penetrates the skin and the vaccine is not just injected into the feathers. The dose should be checked for accuracy frequently and good hygiene practices must be observed to prevent contamination.

**Ocular** – the vaccine is administered into one of the bird's eyes through an eyedropper. Care must be taken to

ensure that the recommended dose is dispensed. If it is too little, the level of immunity may be inadequate, while if too much is used, the vaccine will run out before the whole flock has been treated.

**Nasal** – the vaccine is introduced into the birds' nostrils either as a dust or as a drop. Always ensure that the applicator delivers the correct dose.

**Spray** – the vaccine is added to sufficient purified water to cover all the birds in a house. The birds pick up the sprayed vaccine through their eyes or nose. This is good for respiratory vaccines (ND and IB) where mass application is required, as in a layer or broiler house.

**Drinking water** – the vaccine is added to the drinking water, which is quick and significantly less stressful on the birds and operator. Take care to ensure correct delivery as there is much scope for error. Make sure that:

- all vaccination equipment is carefully cleaned and free of detergents and disinfectants.
- only cold, clean water of drinking quality is used.
- you open the stopper of the vaccine bottle underwater.
- the water present in the drinking trough has been consumed before vaccination.
- all birds in the house drink the water containing the vaccine. This should ensure that they all get an adequate dose.

#### How do I know that the day-old chicks I bought have been vaccinated?

All day-old chicks that come from a reputable hatchery should be vaccinated, unless they tell you otherwise. You should get a vaccination certificate of sorts, which details what vaccine has been used. This certificate can also provide information about the parent flock. There is normally an extra cost involved and you will pay more for a bird that has been vaccinated.

Most hatcheries will add a dye (blue, green or red) to the vaccine. This will temporarily lightly colour the birds for a few days, and will be a clear indication of vaccination administration.

#### 7 How much does it cost?

Vaccines given on rearing farms add up in cost due to the number and type of vaccines, and the handling and administration involved. Those given on the layer or broiler farms will cost a few cents per bird. Considering the cost of chicks, it makes sense to spend a few cents to protect a bird from potentially lethal diseases. Also, losing a bird later in the production cycle means you also lose the money spent on other inputs like feed, gas and water.

Vaccines generally come in a 1 000- or 5 000-dose format, and only occasionally in a 500-dose format, so for the smaller farmer, there inevitably is waste. Consider buying vaccines with neighbouring small farmers to minimise the waste. Prices depend on vaccine strain, type and supplier so it's best to get exact prices from your supplier.

Nick Stevenson is key accounts manager for poultry and swine at AECI Animal Health. For more, see acciworld.com



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- · Contact ad sales manager Louisa Nel on 011 795 9920 or at advertising@poultrybulletin.co.za.
- · Ads may be edited for length and clarity and we reserve the right to reject any advertisement at our discretion.
- · Format: send us a maximum of 50 words detailing your poultry-related product or service. Classified adverts are text only and we cannot accept logos or product images at this stage.

#### Outperforming Layers of a New-Old Brand

How Wohlfahrt Poultry Farm managed flock diversification for better results

Wohlfahrt Poultry Farm (Pty) Ltd is a third-generation family business founded in 1958 by Austrian born immigrant, Ernst Arnold Wohlfahrt. The company has steadily grown from humble beginnings and currently ranks under the bigger independent egg producers and table egg suppliers in the country.

"We decided to diversity our breeds and look for birds with optimized feed conversion rates, better livability and extended longevity as well as uniform eggshell color and shell quality", says EP. Bergh, Technical Manager at Wohlfahrt Poultry Farm (Pty) Ltd.

H&N International, although equally established and founded in 1945, came in as a new and formerly unknown genetic company to the South African Egg Producers recently. "H&N International is a reputable and fast growing brand in the global markets. So, at the beginning, we discussed at length whether there could be any risks in working with a brand that had been unknown to us so far", recalls Andr' van der Merwe, Director at Hy-Line South Africa. The decision to give H&N birds a try was then thoroughly based on many factors with the three key criteria being:

\* Persistency

- Persistency
- Livability
- · Eggshell color and shell quality

On 25 March 2021, Wohlfahrt Poultry Farm (Pty) Ltd received their first flock of H&N chicks in brooding. The monitoring started, comparing the H&N with other breeds and with their in-house standards.

On average, the livability in the first ten days were 99.3%. Five weeks mortality of 1.6% typically recorded well within the breed standard. Weights and uniformity at point of lay placement were above breeding standard and feed conversion to body weight were above target. The H&N Nick Chicks performed well above the breed standard with an average uniformity of 86%. The birds came in production on time and positively followed the expected target. Their egg weight was consistent with their age and body weight and from there onwards the H&N birds performed on standard. So, after giving a chance to Silver Nick, Wohlfahrt Poultry Farm (Pty) Ltd concluded: "We are satisfied with the H&N

layers and are considered by us to be consistent with regard to feed conversion rate, livability and egg weight, says E.P. Bergh.

Since March 2021, several more flocks were ordered and placed.

+27 11 318 2355 sales@hylinesa.co.za





## FARMERS' WISDOM



Not yet 30, SAPA member **Bongani Khumalo** has realised his childhood dream and now helps others on their way to becoming farmers

## Working smart, and sharing knowledge

From the age of 15, Bongz Khumalo dreamt of owning a poultry business. A dozen years later, he runs the family business, Nkabohle Poultry Farm in Pretoria West, along with his parents and his sister. They supply broilers to the local community and market their chicken largely through social media. Currently they raise between 5 000 and 10 000 broilers per cycle and sell both live and slaughtered birds according to their customers' demand.

It's been a long journey. "First I had to convince my parents to sell their dream house so as to finance me. I created a lengthy PowerPoint presentation, and it did the trick! We started exploring possibilities and learnt that one could apply to the Department of Agriculture, Land Reform and Rural Development to lease a farm.

"When we received confirmation from the government, the house was put on the market and sold. Because we got the farm voetstoots, most of the profit from the sale of our house went into repairs at the farm and replacing all the equipment that had been stolen."

Funding is a challenge and Khumalo has had to continue with his day job in the advertising industry to keep the business afloat. "You need to work extremely smartly, and I have learnt that efficiency is key. I don't want

to fall out of love with my dream of producing broilers, so I dedicate a lot of hours to it. All my resources do go towards the farm."

He is under no illusions about the trials and tribulations of farming, not least of which is soaring crime – the reason why their farm currently produces only half the broilers it used to. "We got hit hard by stock theft. It's well organised; the criminals monitor our routine and we've lost half of our flock in the space of 45 minutes. It can be very demoralising and it's difficult to recover from these losses."

Nonetheless, he finds much satisfaction in his chosen career, and enjoys being able to add value to the local community, not only by providing food, but also by providing employment opportunities. "The local people are our main customers, and they rely on us as much as we rely on them."

Khumalo also hosts agricultural students from TUT's Shoshanguve campus, who come to spend time on Nkabohle Farm to gain practical working experience.

"I know myself how hard it is to enter the workforce without it, so we've committed to this programme, where the students get to broaden their knowledge while staying in comfortable accommodation and getting a stipend from the





**Nkabohle Poultry Farm** Pretoria West

Follow Bongz Khumalo on Twitter: @BongzThaMr\_K www.nkabohle.co.za

government, so that they will be more successful in finding employment once they graduate."

His SAPA membership is a resource he relies on for advice. "Having the SAPA team on the other side of the line is so useful – it really helps to have access to expertise and a network of experienced poultry people. It helps me keep my priorities in focus."





## An egg-xhilarating day on the calendar!

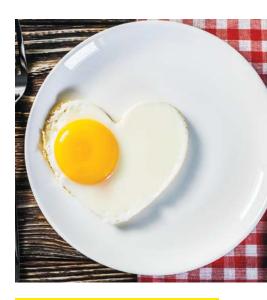
You followed the clues and hopefully found all 10 egg-xotic questions. Now for the results...

#### ANSWERS

- **b)** Store eggs pointy side down to keep them fresher for longer
- **No,** not needed. But once stored in the fridge they must remain in it until consumption
- **3** a) Cooked
- **False,** the freshest eggs have cloudy egg whites
- **b) Sight** eggs are good for the eyes

- **True,** eggs are the most affordable source of protein, an essential nutrient in the battle against childhood stunting
  - **7 c)** 24 26 hours
  - **b)** around 27 million
  - **9 c)** 7.7 8.4 billion eggs
- **10** False if the egg floats in the water then it's no longer fresh





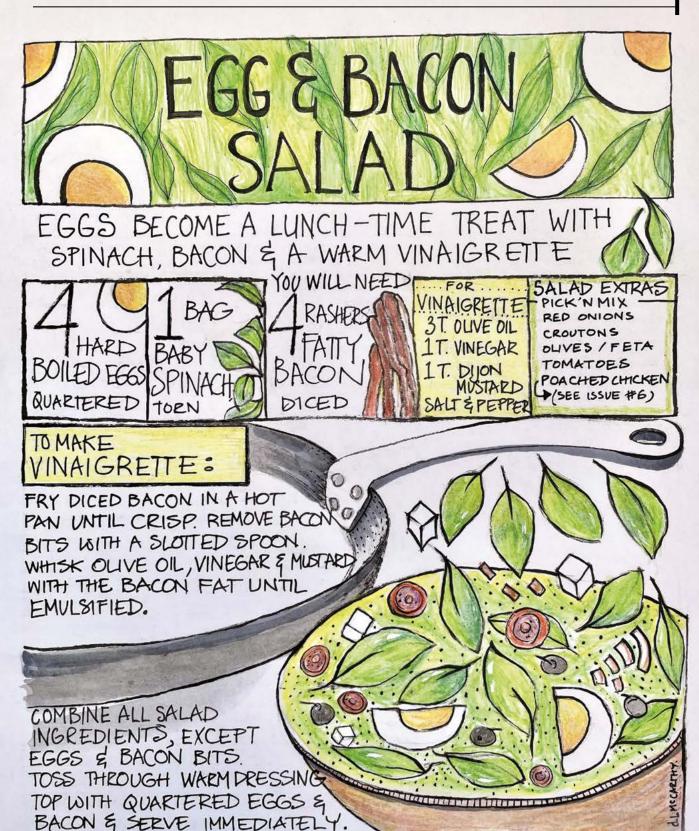
## ARE YOU A FUNDI OR A PHILISTINE?

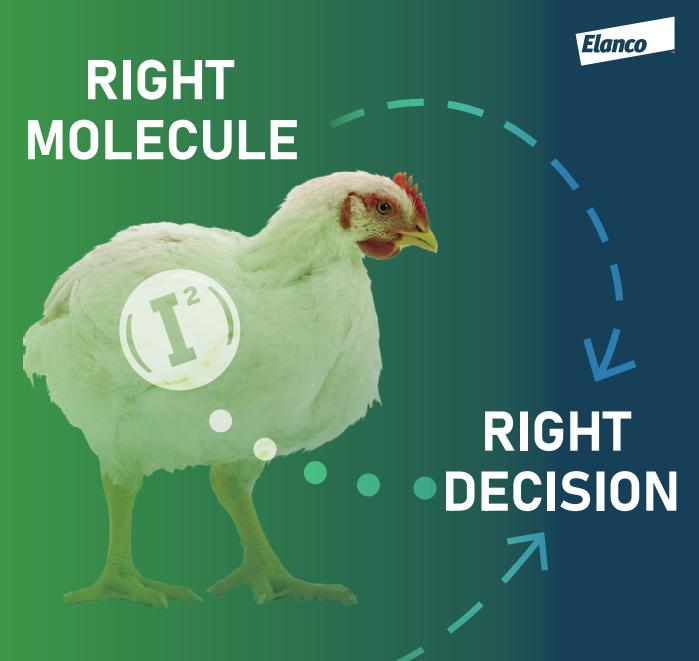
Find out how you compare! If your score is:

8 to 10/10 – Egg-cellent –you can claim the title of egg fundi!

**5 to 7/10** – Egg-xasperating – you know you could do better!

**0 to 4/10** – Egg-xcruciating – you're an egg philistine! Sharpen your savvy about the most affordable protein by visiting www.internationalegg.com





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1. Callender ME and Jeffers TK (1980). Anticoccidial Combinations Comprising Nicarbazin and the Polyether Antibiotics. US Patent 4,218,438, pp1-12. Maxiban contains Narasin and Nicarbazin. Legal category SFA]. Further information is available from the Datasheet. Maxiban, Elanco and the diagonal bar are trademarks of Elanco or it's affiliates. Use medicines responsibly

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