Poultry: obstacles and possibilities for small-scale producers

By Sinenhlanhla Mncwango

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Kobedi Pilane, CEO of African Poultry Producers and a commercial poultry farmer in Brakfontein, near Parys in North West, spoke to Sinenhlanhla Mncwango about the first steps that small-scale farmers must take if they hope to scale up to commercial production.

Poultry meat and by-products remain the most affordable and accessible protein for millions of people in South Africa. As the demand for chicken meat and eggs continues to grow, the local chicken industry offers many opportunities for small-scale farmers to upscale to commercial production. However, this isn't as easy as it sounds and requires careful consideration.

Scaling up

If a small-scale farmer wants to scale up to commercial production, the first step they need to take is to ensure all records are kept in order and up to date, says Kobedi Pilane, CEO of African Poultry Producers (APP) and a poultry farmer in North West.

He says small-scale farmers need to determine how much feed their chickens need, how much water they consume, and how much medicine they need, and keep track of all of it.

He explains that keeping an Excel spreadsheet with all this information, as well as the birds' weights, is a good starting point.

He adds that small-scale farmers need to do research on the different types of chicken breeds available on the market and choose one that will thrive under their particular farming conditions.

Pilane adds that small-scale farmers should formally register their businesses, and ensure that their tax returns and financials are in order before graduating to commercial production.

He also says that farmers should focus on feed weight and portions to ensure that their chickens grow optimally. Good nutrition will allow the birds to reach their optimal weight, but is also a disease-prevention tool.

Poultry housing

Environmentally regulated chicken housing, according to Pilane, is ideal for a commercial farm. These houses allow the farmer to monitor and control the environment and temperature inside every house. Should a smaller farmer wish to scale up to commercial production, they should consider introducing housing to his or her operation.

The most common type of house used on a commercial poultry farm is fully enclosed and mechanically ventilated. These houses are sealed with insulated walls and roofs.

Ventilation is managed entirely by mechanical fans (often tunnel- or cross-ventilated), and is controlled by sensors that monitor temperature, humidity, and air quality. Lighting is artificial, and its duration and intensity can be precisely controlled.

Heating and cooling systems are integrated to maintain optimal temperature ranges. The high level of control allows for optimised growth rates, feed conversion ratios, and egg production, maximising output and efficiency.

These houses are extremely expensive to set up and run and may not be feasible for small-scale farmers. They are also heavily reliant on a steady supply of electricity, so if a farmer cannot afford to install solar power or other alternatives to Eskom-generated electricity, this type of house is not viable.

Farmers may also opt for partially enclosed, naturally, or mechanically assisted ventilated housing. These houses have some solid walls but also incorporate openings, such as curtains or adjustable vents, that can be opened or closed to utilise natural ventilation.

Mechanical fans may be used to supplement natural airflow, especially during hot weather.

Lighting can be a combination of natural and artificial. Temperature control relies more on natural airflow and may include basic heating or cooling. While some commercial farmers use this type of housing, it is perhaps more suitable for larger small-scale farmers who are scaling up production to reach commercial status.

This type of housing is cheaper to install and easier to manage, and isn't as reliant on consistent power supply. As such, running costs are also lower compared with those of the fully enclosed housing system.

It is essential, however, that farmers keep careful track of the humidity and temperature in this type of housing structure to control the environment by allowing in air (or closing off air) when needed.

Hoop houses

Hoop houses with ventilation are also an option, particularly for smaller farmers hoping to scale up to commercial production. These houses are semi-circular structures with arched frames made of durable fabric or plastic. Ventilation is typically achieved through roll-up sides or end vents.

A hoop house, which is partially enclosed, allows the farmer to manually control ventilation and air flow.

While offering protection from rain and some temperature extremes, these houses have less insulation than solid-walled buildings. Supplemental heating or cooling might be used in extreme conditions, and lighting is primarily natural.

This is a cost-effective option for smaller farmers, but temperature and humidity levels have to be carefully monitored and controlled.

A strong workforce

Pilane currently runs an operation with 140 000 layers and 40 000 broilers, all of which are housed in four large chicken houses. He says this kind of commercial operation is a 24-hour, seven-days-a-week business, as all aspects of the operation require constant monitoring.

He advises smaller farmers who wish to scale up production to employ staff with a shared vision for the operation. The farmer's staff should feel like they're an integral part of the business: the farmer's loss is their loss, and the farmer's gains are their gains.

"I reward my workers based on how each house performs," he says. A manager has been assigned to oversee each house and monitor the progress of the chickens kept in that particular house.

Facing challenges

According to Pilane, South Africa's poultry industry is relatively unstable, with the country being short over two million eggs a day, largely due to the outbreak of highly pathogenic avian influenza (bird flu) that it experienced a couple of years ago.

Despite this, though, he says the situation is improving.

"We've been experiencing a scarcity for some time, but since the bird flu [outbreak] two years ago, our capacities have been returning to normal. We're making progress, and we're nearly back to where we were before the illness hit," he says.

He adds that the South African industry is particularly vulnerable to diseases, as the country has many farmers who are not "formalised".

"There's also a lack of support for farmers who need to be developed so that we can close the gap [between smaller-scale and commercial farmers]."

According to Pilane, farmers' biggest challenge at the moment is an unreliable power supply. However, even this is improving, he says, with Eskom having shown itself to be more reliable over the past year.

Chicken farmers are also facing high input costs, especially for feed, which is directly related to grain prices on the international market.

"We spend almost 75% of our input costs on feed alone. That's a big problem. Countries like Brazil [one of the world's major significant chicken producers] produce chicken more cheaply, because they can buy grains for a bit cheaper."

Avian influenza, transmitted largely by wild, migratory birds, has had a significant impact on the world over the past few years, and remains an ever-present threat for the global poultry industry at large.

Given the growing demand for chicken meat and eggs, there are plenty of small-scale chicken farmers in South Africa who should consider scaling up to commercial production.

The US, for example, has culled over 160 million birds to curb the spread of the disease. Other countries, such as France, the UK and Germany, among many others, have similarly culled hundreds of millions of birds.

Pilane says that although South Africa hasn't had any recent outbreaks, farmers must need to ensure that they continue to implement strict biosecurity measures. He adds that while biosecurity is expensive, it offers significant advantages to small and large farms.

"If you have to put an electric fence around your whole farm to make sure you keep out everybody who might be a risk to your farm, so be it," he says.

He adds that farmers need to restrict access to their chicken flocks and houses. This, he says, can be achieved by simply controlling access at the farm gate by installing a gate keypad that requires a code for entry.

Farmworkers and visitors should be required to remove all outer clothing (coats, jackets, hats) and footwear (shoes, boots) in a designated ‘dirty’ area before proceeding further.

These items should be stored in a way that prevents contamination of the clean areas. People should then put on clean, farm-provided protective clothing (coveralls, hairnets) in a designated changing area.

Vehicles entering the property should also be sterilised beforehand.

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