

# NEW ON THE LAND

## Improving the 'Zulu chicken'

Increasing the productivity of traditional chickens is an easy way of providing food and income for rural families.

**Dr Ed Wethli** spoke to **Robyn Joubert** about the success of the Umzimkhulu village chicken improvement project.

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### BELOW:

Zweliphi Sithole (left), an extension officer from the department of agriculture, with household farmer John Malanda and his flock of chickens.



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**LEFT FROM TOP:**

• A cock with good conformation – showing correct shape and musculature. Course participants are shown how to select superior, healthy cocks and hens.



• Clementine Chiya, vice-chairperson of the Umzimkhulu village chicken improvement project. Her flock has doubled in size from about 30 birds to 60.

• Farmers are encouraged to provide nests for their chickens.

**BELOW:**

Participants are taught to provide protection for chicks during the first four to five weeks of their lives to reduce mortality rates.

PHOTOS: DR ED WETHLI



Chickens are a common sight on rural homesteads across South Africa. These are so-called ‘village chickens’, also named ‘indigenous foragers’ or ‘Zulu chickens’. Yet although these birds are so common, families seldom eat them and almost never eat the eggs.

According to Dr Ed Wethli, a poultry expert and the former head of training of the KwaZulu-Natal Poultry Institute (KZNPI), the main reason for this is that the birds’ mortality rate is high and few eggs are produced. So it’s difficult to increase the average family flock of about five hens and one or two cocks.

Yet with a little money, time and attention, it’s possible to improve the productivity of these chickens – providing not only a ready source of meat and eggs for families, but extra birds for sale and barter.

**CHICKEN PROJECT**

With this in mind, Dr Wethli launched the Umzimkhulu village chicken improvement project in May 2010 in conjunction with Zweliphi Sithole, an extension

officer from the provincial department of agriculture, and Ndumiso Khumalo of the KZNPI. The venture was financially supported by ABSA Corporate Bank.

“Village chickens have the genetic potential to respond favourably to better management. The idea is to transform village farmers from passive to active chicken producers using basic chicken management skills,” says Dr Wethli.

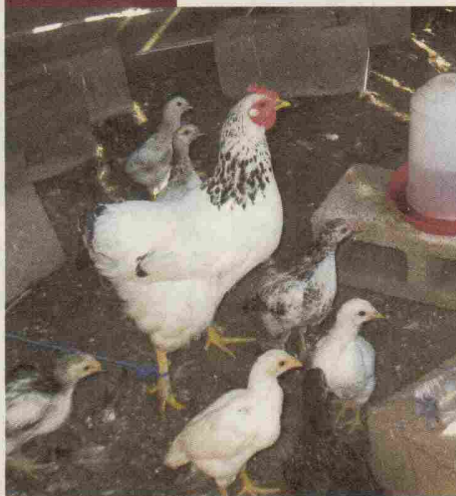
A total of 14 participants – 10 of whom were women – were chosen from three villages in Umzimkhulu. They began by attending a one-day workshop at the KZNPI in Bisley, near Pietermaritzburg, at which they learnt the basics of record keeping. This was followed by a one-week course, at which they were taught management techniques that covered diseases, pests and parasites, and chicken housing. Each participant was then given building materials to construct a simple chicken house to protect the birds at night.

After the course, Dr Wethli and Zweliphi paid regular on-site visits to the farmers.

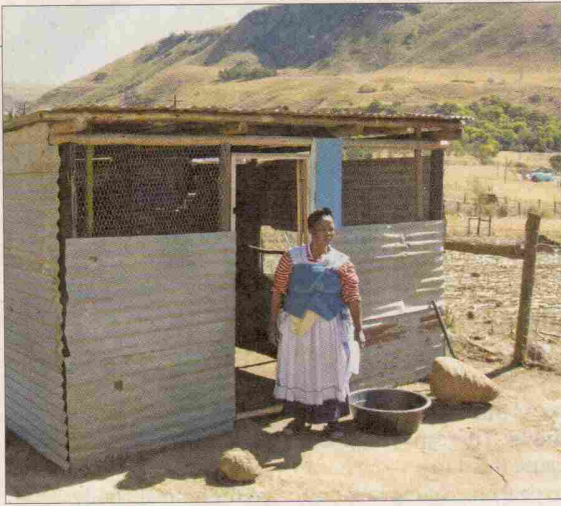
**BETTER ALL ROUND**

Six months later, every aspect of chicken production had improved. The average flock size had increased from 19 to 29 birds per household, mortality had been reduced in 62% of households, and disease control showed an 82% improvement. Just over a third of the participants had started collecting eggs and many were using selective breeding.

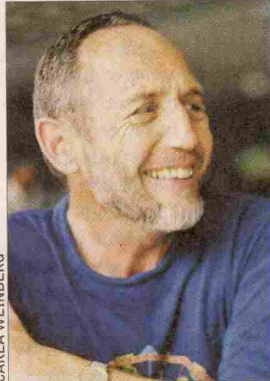
A year later, towards the end of 2011, the situation looked even better, with an average of 43 birds per household.







**ABOVE:** Learning from others. Twenty farmers from the chicken improvement project visited the Mdukatshani Rural Development Project in the Msinga area near the Thukela River in November 2010. Here, Florence Ngcem relates her experiences.



CARLA WEINBERG

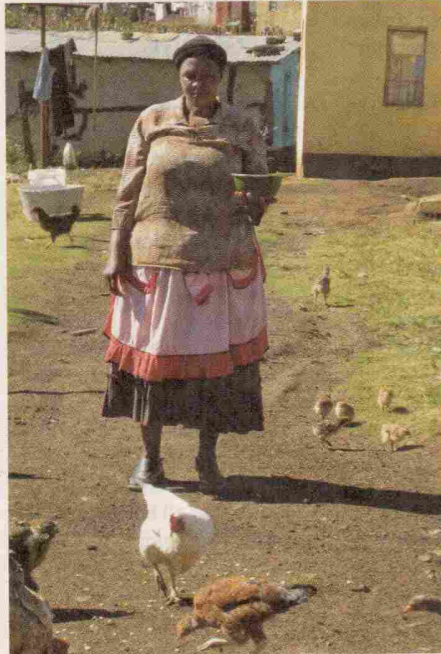
**DR ED WETHLI**

"At this stage, all participants had improved the housing for their chickens and the birds generally looked healthier," says Dr Wethli.

But the best news of all was that participants were now eating much better! Before the project started, each household would eat one chicken every three or four months; now they were eating an average of one or two a month.

**'JUST ONE YEAR AFTER THE COURSE, PARTICIPANTS HAD, ON AVERAGE, MORE THAN DOUBLED THEIR FLOCK SIZES.'**

Each household was now also eating an average of eight eggs a month. In addition, the extra chickens were bringing in cash. It was estimated that an average family with five hens and one



cock could produce 10 chickens from each hen every year, or 50 chicks a year. Before the project started, families were lucky if a hen raised one or two chicks from a brood of 12.

**TOP LEFT:** Octavia Dlamini and her new chicken house. A simple structure will keep the bird safe from predators and increase egg production.

**ABOVE:** Margaret Phungula with her household flock.

"If the family eats one chicken every two weeks, they still have 25 chickens which can be sold at R60 each, which means R1 500 per year," says Dr Wethli.

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**FAST FACTS**

- The 'village chickens' found on rural homesteads have a high mortality rate and produce few eggs. As a result, the birds are an under-utilised source of food.
- These birds have the genetic potential to become much more productive if they are managed well.
- The Umzimkhulu village chicken improvement project has turned village farmers into active chicken producers through teaching basic chicken management.

**Management interventions to improve chicken production**

During their week-long course at the KZN Poultry Institute, participants study:

- **Disease control** – how to reduce mortality from Newcastle disease, fowl pox and other poultry diseases.
- **Parasite control** – how to reduce the effect of parasites such as fleas, lice, ticks and intestinal worms.
- **Improved housing** – how to construct simple structures with nests where the birds can spend the night. These reduce predation and make management easier.
- **Protection of chicks** – methods of reducing mortality, especially during the first four to five weeks of a chick's life.
- **Supplementary feeding** – young chicks require a balanced diet. Farmers are encouraged

to grow suitable crops for their chickens.

- **Management of eggs** – how to ensure that more eggs are available for family consumption as well as for sale.
- **Selective breeding** – how to recognise superior, healthy cocks and hens, how to breed them and why it is essential to cull inferior types. Participants are strongly discouraged from using exotic breeds – local chickens are best for local conditions.
- **Record keeping** – how to keep simple records of vaccinations, egg-laying, hatchlings and other details.
- **Marketing** – if a household starts producing enough chickens, there might be an opportunity to sell these to consumers or city butchers.

• **Source: Dr Ed Wethli**



← “That’s excluding any bartering or egg sales.”

Clementine Chiya, the project vice-chairperson, says she had not realised how productive the chickens could be. Her flock has doubled from about 30 birds to 60, including chicks.

“We now collect eggs every day and I slaughter a chicken every Sunday. I don’t normally sell chickens, but if someone wants to buy one, I sell it for R50 to R60. This project has improved my life,” she says.

Clementine gives her flock a little extra food, mainly yellow maize and eggs. The course participants were taught to boil and chop up unhatched eggs – shells and all. This is put down in the evenings to encourage the hens to come home to roost and to give the chicks extra nutrition.

#### MINIMAL COSTS

Feeding and caring for the chickens is designed to cost as little as possible and be completely sustainable.

“The farmers should provide a basic chicken house and pay for the few low-cost inputs, such as vaccines (about R100 a year) and possibly some chicken feed to reduce chick mortality,” says Dr Wethli. “But selling three to four birds can cover these annual costs.

“It’s hoped that these farmers will continue their good work, encouraging other farmers in the area to become involved and contribute towards rural food security.”

In particular, Dr Wethli would like to see the project started in other parts of South Africa.

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