



The Potchefstroom Koekoek breed

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Introduction

The African Chicken Genetic Gains Project (ACGG) is led by the International Livestock Research Institute and funded by the Bill & Melinda Gates Foundation (BMGF). The project tests selected chicken strains for egg and meat productivity, adaptation and preference by farmers in Tanzania, Ethiopia, and Nigeria under semi-scavenging and intensive management conditions.

Selection of chicken strains for the test was based on prior knowledge of their productive performances in different tropical countries. The Potchefstroom Koekoek breed has been identified as tropically adapted and productive and will be tested in Ethiopia. This factsheet outlines the history of the breed, its characteristics, and the potential for Potchefstroom Koekoek to increase incomes for smallholder farmers in Ethiopia, especially women, lifting them out of poverty.

Origins of the Potchefstroom Koekoek

The Potchefstroom Koekoek, a local composite chicken breed, was developed in the 1950s at Potchefstroom Agricultural College in South Africa. Koekoek is a mix between the Black Australorp and the White Leghorn with some Barred Plymouth Rock infusion. The name Koekoek refers to the barred colour pattern of the birds.

The breed is popular amongst South African farmers and farmers in the neighbouring countries for its egg production, meat production, as well as its ability to hatch their own offspring.

Potchefstroom Koekoek characteristics

- Free ranging, dual-purpose breed adaptable to smallholder production systems;
- Lays brown shelled eggs (196 eggs/bird/year) have an average weight of 55.7g;
- Has sex-specific feather colour and pattern with a possible application in breeding programs;
- Reaches early sexual maturity (130 days); and
- Reaches an average weight of 3-4kg for males and 2.1kg for females.

Koekoek performance in Ethiopia

A flock comprising 960 Koekoek chickens was established for experimental purposes at Debre Zeit Agricultural Research Centre (DZARC) in 2008. The breed was tested under station management at DZARC (Tables 1).

Table 1. Growth and reproductive performance of Koekoek chicken at DZARC

Trait	Value
Average egg production	NA
Average egg weight (g)	51.9g
*Fertility (%)	90%
**Hatchability (%)	78%
Age at first egg (days)	147
Mean feed intake at 20 w/bird/day	122.68
Mean body weight at 20 w/bird (g)	1399-1700.71
Mean mortality at 20 w (%)	2.41-2.9

* % fertility= total number of fertile eggs X 100/ total number of candled eggs

**% hatchability = total number of hatched chicks X 100/ total number of set eggs

Source: Wondmeneh (et al. 2012).



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For more information on the program, and to find out about future development and performance of the Kuroiler breed in Ethiopia, Nigeria and Tanzania, go to: <http://africacgg.net/>

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African Chicken Genetic Gains is an Africa-wide collaboration that uses genetics so the continent's smallholder can get more productive chickens.

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