African Chicken Genetic Gains

Long term genetic gains implementation plan

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Vision

• Sustainable genetic improvement program can be primary driver for change
• GET the genetics right and it will serve as a systemic pull factor
Workplan

• Evaluate promising indigenous chicken ecotypes
• Design and evaluation of breeding schemes
• Outline path forward for sustainable genetic improvement
Evaluating the chicken strains/ecotypes

Based on the on-field or on-station trials:

• Select about 2 indigenous chicken ecotyes within country

• Select about 2 preferred ecotypes from the imported strains

• Expectations from countries
  • Adequate data available on tested strains:
    • On characteristics of economic importance
    • Genetic parameters can be estimated from the data
    • Breeding value estimation
Primary aim is to maximize genetic gain while controlling the rate of inbreeding

Breeding schemes will therefore be evaluated (data analyses & simulation)

- Appropriate effective population size
- Traits to be selected for to ensure long term sustainability (productivity, survivability, fertility, etc)
- Optimum contribution to manage rate of inbreeding
Design and evaluation of breeding schemes

- Setting up different lines such as maternal line or paternal lines either in within strains and across strains
- A cross as the final commercial product

Collaboration with the Center for Tropical Health and Genetics to benefit from latest genomic and genetic advancements
Outline path forward for sustainable genetic improvement

• Involvement of the Public Private Partnership to own the programme
  – Demonstrate to PPP a sustainable breeding scheme has put in place or is feasible

• Multiplication and distribution by the PPP
A document outlining the long-term genetic gain in detail is being finalized
Getting it right

• Collaboration is crucial
• Important to meet needs of farmers
• Focus on impact: pathway out of poverty
more productive chickens for Africa’s smallholders

http://africacgg.net