

Authors

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INTRODUCTION

In Southeast Asia in general and Vietnam in particular, local chicken breeds with high adaptability to local conditions but low productivity dominated by smallholder poultry farm. Genetic improvement of chicken lines is at the heart of improving poultry production systems towards sustainability. In frame work of Asian Chicken Genetic Gain (AsCGG) project funded by ACIAR. This study was performed to test the available high-producing and farmer-preferred chicken genotype in Vietnam . Two dual-purpose imported breeds including Sasso and Tetra H were selected to test the adaptability, growth and reproductive performance until 72 weeks old and compare with three endogenous breeds in two experiments

METHODS

Experiment design

On-farm comparative testing

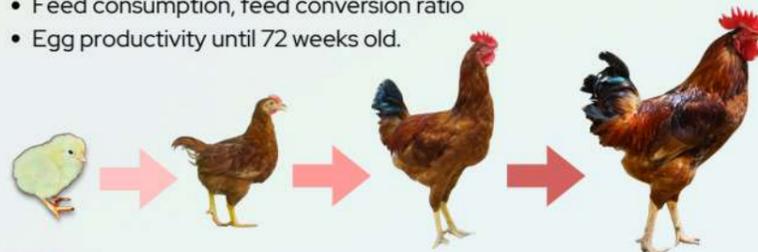
- Study areas: Hoa Binh, Quang Binh and Ha Nam province, Vietnam
- Study material: Sasso and Tetra chickens
- Three Vietnamese local chicken breeds: Lac Thuy, Lac Son and Mong for comparison
- 5 households/breed/ province
- 50 chicken of imported breed and 50 Vietnamese local chicken/household

On-station testing

Two imported breeds was kept under control condition
0-20 weeks: 100 chicks/pen x 4 replicates
21-72 weeks: 160 hen/breed will be kept in the individual cage

Data collection

- Survival rate (%)
- Body weight at 8 weeks, 20 weeks old, 5% of egg production, 38 weeks and 70 weeks
- Feed consumption, feed conversion ratio
- Egg productivity until 72 weeks old.



RESULTS

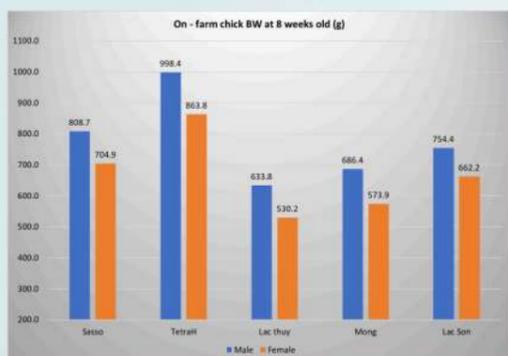


Figure 1: On-farm bodyweight of chick at 8 weeks old

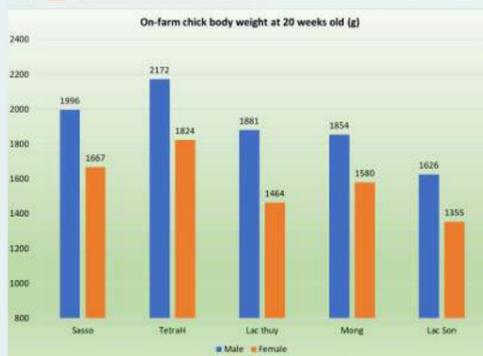


Figure 2: On-farm bodyweight of chick at 20 weeks old

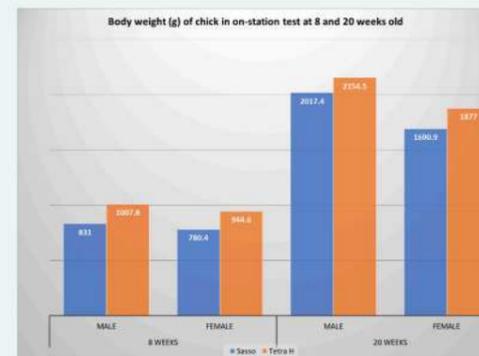


Figure 3: On-station bodyweight of chick at 8 and 20 weeks old



Mong Chicken



Lac Thuy Chicken



Lac Son Chicken



Sasso red Chicken



Tetra H Chicken

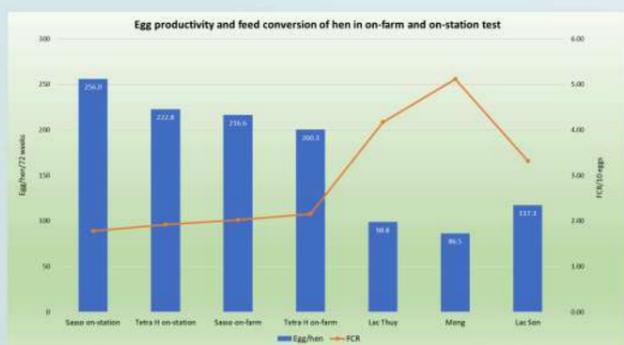


Figure 4: On-farm and on-station testing - Egg productivity (egg/pen/72 weeks) and feed conversion (kg feed/10 egg cumulative)

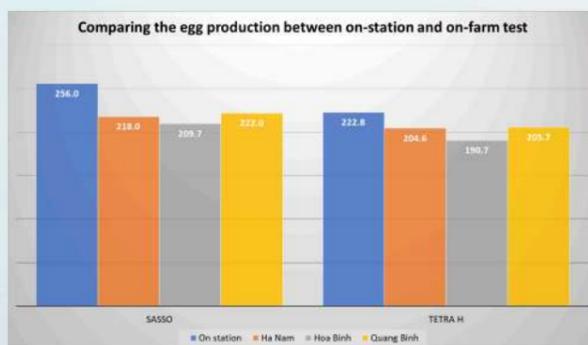


Figure 5: Comparing the egg productivity of Sasso and Tetra H in different experimental sites

CONCLUSION

Both imported breeds had significant higher performance than the local breeds, especially for the reproductive performance. In on-farm testing, each local hen produced from 86.49 to 117.32 eggs and consumed 3.32-5.12 kg feed for 10 eggs while Sasso and Tetra H hen produced 209.72-222 eggs and 190.71-205.67 egg and use feed more efficiency (1.87 - 2.21kg/10 eggs) .

Sasso and Tetra H was a potential chicken dual-purpose breed with good adaptability, high growth and reproductive performance, which can be used as an improved breed to increase productivity for smallholder chicken farms in Vietnam

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- Quang Binh Breeding Centre, Quang Binh Province
- 30 households participated the on-farm comparative testing in Ha Nam, Hoa Binh and Quang Binh provinces

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