

**A COMPARISON STUDY OF PRODUCTIVE AND
GENETIC PERFORMANCE BETWEEN
SHARKASI NATIVE STRAIN AND
IMPORTED NAKED NECK
GENOTYPE CHICKEN**

By

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ABSTRACT

Abdelmoniem Mohamed Abdelmoniem Hanafy: A Comparison Study of Productive and Genetic Performance between Sharkasi Native Strain and Imported Naked Neck Genotype Chicken. Unpublished Ph.D. Thesis, Department of Poultry Production, Faculty of Agriculture, Ain Shams University, 2017.

The comparison between Native Sharkasi and Imported Naked Neck Genotype Chicken by measuring some productive and genetic performance measurements was performed under Egyptian conditions.

a parent stock composed of two different lines (heterozygous naked neck imported from France and its normally feathered type - heterozygous Sharkasi from El-Azzab El-Takamoly project in El-Fayoum, Egypt and its normally feathered type).

Native Sharkasi and imported Naked Neck genotype chicken follow the Mendelian law and the native Sharkasi have an incompletely dominant gene like the imported naked neck genotype and not a mutant in the native normal feathered breed in Egypt.

With respect to the productive performance, Gene action of productive performance (egg & meat production) for every genotype differ according to strain because it's quantitative traits controlling with many genes.

Concerning morphology study, it could be speculated that there is a little difference between heterozygous native Sharkasi and heterozygous imported naked neck in the area naked skin percentage.

According to histology observations, there are significant differences between native and imported birds in epidermal

thickness, fat cell diameter and smooth muscles thickness. While subcutaneous fat thickness showed nonsignificant difference between them.

AFLP analysis proved that only one marker is associated with absence of the neck feathers in both native Sharkasi and Imported Naked Neck Genotype Chicken.

In conclusion, the imported Naked Neck genotype may be in most cases the same of native Sharkasi. Then, we could utilize the Native Strain as a dependent line in development programs under prevailing environmental conditions of Egypt.

Key words: Sharkasi, Naked neck, AFLP, Productive, Morphology and Histology.

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LIST OF ABBREVIATION

ABBREVIATION	Mean
"B"	(blue; FAM).
"f"	correction factor
"G".	(green; HEX)
"O"	(Orange; LIZ = Die standard)
"Y"	(Yellow; NED = CY3).
%	Percentage
°C	The degree Celsius
μl	Micro liter
AFLP	Amplified fragment length polymorphism
Alb. Wt.	Albumen Weight
ANN	Artificial Neural Networks Primer
ATP	Adenosine Triphosphate
BMP	Bone Morphogenesis Protein
bp	base pair
BSA	Bovine Serum Albumen
cM	centimorgan
cm	centimeter
cm ²	Square centimeter
cm ³	Cubic centimeter
DDT	dichloro-diphenyl-trichloroethane