EFFECT OF NAKED NECK GENE ON GROWTH AND OTHER PRODUCTIVE TRAITS OF CHICKEN UNDER HOT CLIMATIC CONDITIONS.

BY

AHMED GALAL EL-SAYED GAD

B. Sc. Agric. Sci. Poultry Production

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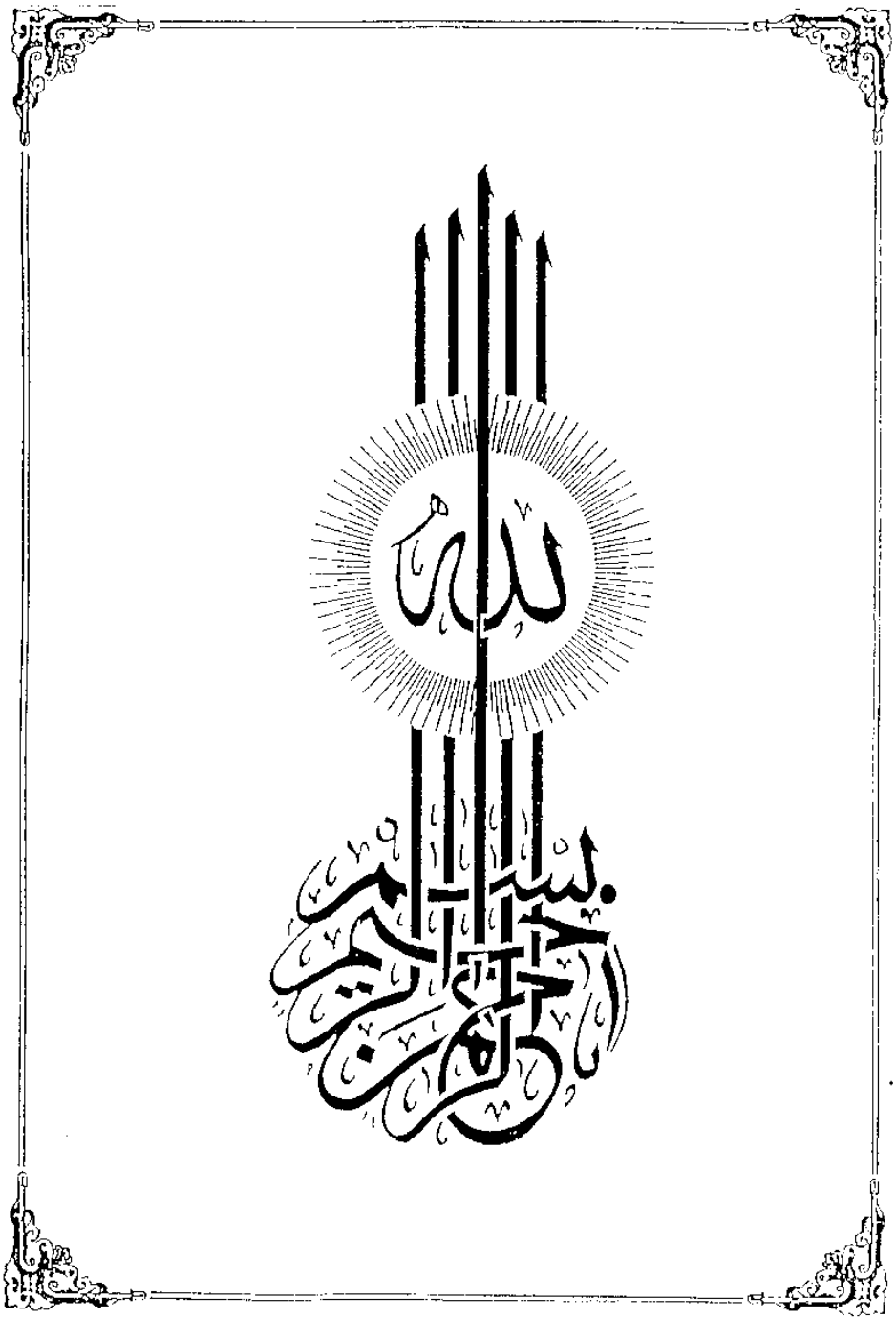

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ABSTRACT

Ahmed Galal El-Sayed. Effect of Nacked neck on growth and other productive traits of chicken under hot climatic conditions. Unpublished Master of Science, University of Ain Shams, Faculty of Agriculture, Department of Poultry Production, 1995.

The present study was carried out at Poultry Breeding Farm, Poultry Production Department, Faculty of Agriculture, Ain Shams University. The aim of this work was to study the effect of naked neck "Na" gene on growth and some productive traits under hot climatic conditions.

A total of 126 normally-feathered females (nana) from three developed strains, namely Mandara, Golden-Montazah and Gimmizah, were artificially inseminated by nine heterozygous naked neck males (Nana) (14 females/sire) to obtain two successive hatches.

The results obtained from this study indicated that the "Na" gene had a favorable effect on body weight and body measurements (keel length and body depth) during early growth period, especially in males rather than females when introduced it into these strains. These results may be due to genotype by sex interaction in some cases.

The results also showed that the "Na" gene had a favorable effect on comb and wattle lengths during early growth and at sexual maturity thus, the naked neck birds had a thermoregulative efficiency under heat stress circumstances by more radiate heat via comb, wattle and bare body surface.

The Nana birds attained sexual maturity earlier and produced more eggs number when compared with nana ones, especially in medium body weight layer (Golden-Montazah) under Egyptian environmental conditions.

The results showed that the Nana birds produced heavier eggs (46.81 g) when compared with that of nana ones (44.89 g).

The "Na" gene had a favorable effect on albumen percentage, especially in Mandara strain.

Key Words : Naked neck gene (Nana), body weight, body measurements, sexual maturity, egg production and egg quality.

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CONTENTS