JOURNAL OF ANIMAL PLANT SCIENCES

Evaluation of growth traits in captive red-winged tinamou (*Rhynchotus rufescens*) raised in different production environments

Luiz Eduardo Cruz dos Santos Correia^{*1,} Cristiane Sella Paranzini², Édina de Fátima Aguiar³, Kelry Mayara da Silva², Keylla Helena Nobre Pacifico Pereira ⁴, Fabiana Ferreira de Souza², Nabor Veiga⁵ and Josineudson Augusto II de Vasconcelos Silva³.

1 Departamento de Zootecnia, FCAV, Universidade Estadual Paulista, Via de Acesso Prof. Paulo Donato Castellane, s/n, 14884-900, Jaboticabal, São Paulo, Brazil.

2 Departamento de Reprodução Animal e Radiologia Veterinária, FMVZ, Universidade Estadual Paulista, Rua Prof. Doutor Walter Mauricio Correa, s/n, 18618-681, Botucatu, São Paulo, Brazil.

3 Departamento de Melhoramento e Nutrição Animal, FMVZ, Universidade Estadual Paulista, Rua Jose Barbosa de Barros, nº 1780, 18618-307, Botucatu, São Paulo, Brazil.

4 Departamento de Clínica Veterinária, FMVZ, Universidade Estadual Paulista, Prof. Doutor Walter Mauricio Correa, s/n, 18618-681, Botucatu, São Paulo, Brazil.

5 Departamento de Produção Animal, FMVZ, Universidade Estadual Paulista, Rua José Barbosa de Barros, nº 1780, 18618-307, Botucatu, São Paulo, Brazil.

*Corresponding author email: <u>luiz.edcsc@gmail.com</u>, Tel: +55 14 98102-4009

Key words: Nonlinear model, tinamidae, width, weight.

1 ABSTRACT

The objective of the present study was to evaluate the growth of red-winged tinamou (*Rhynchotus rufescens*) in different production environments (FCAV and FMVZ sector) in order to provide technical information for future commercial farming. The following growth traits were evaluated: birth weight, weight, breast width (BIW), and thigh width (TW) at specific ages. Eight age classes were established (28, 56, 84, 112, 140, 168, 200, and > 300 days of age), considering weights at less or more than 12 days of age per class. The SAS program was used for statistical analysis. The nonlinear Gompertz model was used to describe the growth of the animals, using the NLIN procedure. Analysis of variance of body weights in the different age classes was performed by the least square method, using the GLM procedure. The asymptotic value and lowest growth rate for weight, BrW and TW were: 758 g, 23.9 cm, 8.8 cm and 0.0197 g, 0.0164 cm and 0.021 cm, respectively, The observed means of birth weight and the eight age classes 28, 56, 84, 112, 140, 168, 200, and > 300 were 41.2 g, 1392 g, 2733 g, 4401 g, 558.7 g, 633.3 g, 6838 g, 724.7 g and 750.0 g respectively. The red-winged tinamou requires a longer time to reach mature weight than other birds, and measures should be taken to shorten this period for commercial production.