Journal of Applied Biosciences 187: 19813 - 19822
ISSN 1997-5902

Breeding practice and productivity of domestic pigeon (*Columba livia domestica*) in the urban area of Abeche city.

NIDEOU Dassidi[1], Madjina TELLAH[1], LENG Tchang[2], DJASRANGUE Sandjibaye[1], MOPATÉ Logténé Youssouf[3]

1 Institut National Supérieur des Sciences et Techniques d'Abéché (INSTA), Département des Sciences et Techniques d'Élevage BP: 130 Abéché, Tchad

2 Université de N'Djaména, Branche Alexandrie, Faculté de Médecine Vétérinaire et Agronomie, BP: 1117 N'Djaména, Tchad. Laboratoire de Zootechnie et des Productions Animales de l'IRED.

3 Institut de Recherche en Élevage pour le Développement (IRED), BP: 433 N'Djaména, Tchad. Laboratoire de Zootechnie et des Productions Animales de l'IRED

Corresponding Author: nideoudass@gmail.com

Submission 7th July 2023. Published online at https://www.m.elewa.org/Journals/ on 31st August 2023. **https://doi.org/10.35759/JABs.188.3**

ABSTRACT

Objective: In this study, the aim was to evaluate the productivity of domestic pigeon (*Columba livia domestica*) farming in Abeche city to improve family poultry farming practices.

Methodology and Results: A total, 99 households participated were included in this study. The data collected focused on the breeder's profile, age at onset of egg-laying, number of eggs laid, laying frequency, hatching rate, incubation period, weaning of squabs, breeding management and constraints. Data were analysed using XL-STAT software (version 6.1.9). This study revealed that men (77.78%) with a mean age of 35.43±0.45 years predominantly practice poultry farming. The breeders were mostly married (84.85%), with the majority being schooled (81.82% secondary), and with a working experience of 6.24±0.75 years in pigeon farming. The breeding objective was consumption and sale. Health monitoring of 70.41% is ensured through both vaccination and preventive treatment (70.41%) and secondly only preventive treatment (22.45%). The age at onset of egg laying is 5.01±0.21 months. The squab lays 1.75±0.12 eggs per clutch with a frequency of 7.56±0.27 clutches per year. A total egg laid per hen pigeon per year was 14.01±1.03. The hatching rate is 87.50% after 17-19 days of incubation. Parasitosis (52.50%), coccidiosis (35.39%) and lack of technical support, feeding, and disease management were considered the main limiting factors for domestic pigeons' productivity in Abeche city.

Conclusion and application of results: Pigeon farming was practiced mostly by men who have secondary level of education. The main constraints of pigeon breeding were Diseases, predator problem, theft and lack of technical support. Technical support, including training in farming practices and biosafety measures, as well as the availability of necessary inputs, will be crucial for enhancing pigeon productivity. Furthermore, conducting techno-economic investigations will help determine the economic advantages of this farming Practice for farmers.

Keywords: Practice, productivity, domestic pigeons, Abeche city, Chad.