

Tropentag, September 9-11, 2020, virtual conference

"Food and nutrition security and its resilience to global crises"

## Sheep Population and Distribution Pattern in the Derived Savannah of Oyo State, Nigeria

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## Abstract

The location, population, and distribution pattern of sheep for efficient policy formulation for improvement are challenges to the livestock industry. There is a great disconnect between the sheep farmers' needs and policy framework towards ameliorating these production constraints. The study tries to investigate the population and distribution pattern of sheep in Oyo state, Nigeria.

A multi-stage sampling technique was used to elicit information from purposively selected 225 respondents in the study area. The sheep production systems were mapped with the Participatory Rural Approach method. The Global Positioning Systems (GPS) of the farmers' distribution and average sheep herd size (Total Livestock Unit, TLU) were recorded. The GPS data were transferred into the ARC-GIS software and processed with the ARC-GIS model 10.0. Samples of the selected feed resources (FR) fed to sheep were collected and analysed for chemical compositions (Crude Protein (CP), Neutral Detergent Fibre (NDF), ME (MJ/Kg DM) with Near Infra-red reflectance spectroscopy (NIRS); a mixed feed global calibration Model using the software package WIN ISI. Data analysed using descriptive statistics.

The study locations considered were Egbeda, Oluyole, Ona-ara, Akinyele, Ido, and Ibarapa East LGA's. The average sheep herd size (TLU) for Egbeda, Ibarapa East, Ona ara, Akinyele, and Oluyole was 37, 25, 8, 7, 5 and 4, respectively. The herd sizes were classified less than 8 (smallholders), 9–25 (medium), 26–50 (large), and above 50 (commercial). The majority (45%) of farmers were smallholders. The FR CP (%) ranged from  $5.81\pm0.26$  (cassava leaf) to  $24.91\pm0.91$  (A. spinosus), NDF (%) ranged from  $22.38\pm4.43$  (*Amaranthus spinosus*) to  $67.96 \pm 2.58$  (*Althemanthe dedentata*) while ME ranged from  $7.88\pm0.24$  (*A. dedentata*) to  $10.68\pm0.18$  (cassava leaf).

The smallholders' sheep farmers were evenly distributed across rural areas due to the availability of abundant feed resources. Most feed resources available were below sheep protein requirement level, hence supplementation necessary for productivity. The bio-informatics can provide relevant information for sheep production for policy framework and intervention strategies.

Keywords: Bio-informatics, ecological zone, feed resources, interventions, policy, production systems

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