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Goat Production and Distribution Pattern in the Derived Savannah Area of Oyo State, Nigeria

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Abstract

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

A multi-stage sampling technique was used to elicit information from two hundred and twenty five purposively selected respondents from Egbeda, Oluyole, Ona-ara, Akinyele, Ido, and Ibarapa East LGA's. The herd sizes were classified less than 8 (smallholders), 9–25 (medium), 26–50 (large), and above 50 (commercial).

The goat production systems were mapped with the Participatory Rural Approach method. The Global Positioning Systems (GPS) of the farmers' distribution and average goat 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 goat were collected and analysed for chemical compositions: Crude Protein (CP), Neutral Detergent Fibre (NDF) and 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 average goat herd size (TLU) for Egbeda, Ibarapa East, Ona ara, Akinyele, and Oluyole was 37, 25, 8, 7, 5 and 4, respectively. The majority (45 %) of farmers were smallholders. The FR CP (%) ranged from 5.81 ± 0.26 (cassava leaf) to 24.91 ± 0.91 (*Amaranthus spinosus*), NDF (%) ranged from 22.38 ± 4.43 (*Amaranthus spinosus*) to 67.96 ± 2.58 (*Althemanthe dedentata*) while ME ranged from 7.88 ± 0.24 (*Althemanthe dedentata*) to 10.68 ± 0.18 (cassava leaf).

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

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

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