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Area of work: Ruminant nutrition

Organs weight of sheep in crop-livestock system in the Caatinga biome

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Livestock in semi-arid regions has experienced a gradual increase over the years, encouraged by the search for breeding systems that increase productivity and, consequently, optimize pasture utilization. Thus, the implementation of crop-livestock systems in the Caatinga biome has become important. Thus, the objective of present work was to evaluate the organs weight of sheep in crop-livestock system in the Caatinga biome. The experimental period was carried out over two subsequent years (2022 and 2023). The experiment was conducted at the Federal Rural University of Pernambuco, Serra Talhada Academic Unit, in a thinned Caatinga site composed of Mororó tree (*Bauhinia cheilantha* Steud Bong) and enriched with Buffel grass (*Cenchrus ciliaris* L.) and Urochloa grass (*Urochloa mosambicensis* Salm-Dyck). The treatments were three crop-livestock systems implanted in the Caatinga, comprised of the sheep livestock integrated with (i) bean crop, (ii) maize crop, and (iii) herb-cotton crop. The control treatment was composed of sole Caatinga rangeland. Twenty non-castrated male lambs (Santa Inês × Dorper crossbreed) aged six months old were used in the study, and they had an initial average weight of 24.64 ± 2.95 kg. The experimental design utilized was a completely randomized design with four crop-livestock systems and five animals per treatment were utilized. All variables were subjected to the analysis of variance followed by the Tukey test at a significance level of $P < 0.05$, using the GLM procedure of Statistical Analysis Systems. At the end of the experiment, the sheep were slaughtered (after a solid-food deprivation period of 16 h). Pre-slaughter procedures complied with good animal welfare practices and the slaughter was carried out conforming the Regulation of Industrial and Sanitary Inspection of Animal Products. The integrated crop-livestock system did not significantly affect the organs weight of sheep ($P > 0.05$). The skin, lung, heart, spleen, and liver showed average values of 1.758, 0.262, 0.144, 0.036, 0.391, and 0.079 kg, respectively. The crop-livestock integration system in the Caatinga is recommended because it does not alter the organs weight of sheep.

Keywords: lamb; native rangelands; non-carcass components; small ruminants; semi-arid;

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