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Characterisation of two Goat Production Systems in the Highlands of Mexico

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Abstract

The aim of this work is to characterise goat production systems in two regions of the Mexican highlands. One study area is located in the state of Zacatecas, where the main production purpose is meat from older kids or adult animals. In the other site which is located in the state of San Luis Potosí, farmers sell young kids and produce milk. The research work focuses on the description of the local Criollo breed, the feeding management of farmers and general socioeconomic aspects. In interviews and participatory workshops, farmers gave valuable information about their production systems and the socioeconomic circumstances which they live in. Body measurements were taken from 100 female goats per region and a phenotypical description was made. In both regions the animals have nearly the same weight, height at withers, chest girth and body length at the age of two years. Older animals in Zacatecas stagnate in weight and at the age of four years goats in San Luis Potosí are 13 kg heavier; in addition, body measurements are seven to nine centimeters greater. Chemical analysis of 43 fodder plants from semiarid rangeland collected during the dry season showed poor nutrient contents. However, some legumes and composites showed reasonable feeding values, although potentially suitable fodder plants sometimes possess defense mechanisms preventing them from being eaten by goats or other animals. Goats graze the whole year on rangeland and additional stubble grazing is common during the dry season. The analysis suggests clear system differentiation: farmers in Zacatecas rely on traditional farming methods and their productive purposes are mixed, while farmers in San Luis Potosí constantly look for new options of farming (i.e. specific feeds, management technologies). Due to this differentiation, which can suggest a different adoption rate, it is likely that the recent improvement efforts in the San Luis Potosí site, could turn into a more entrepreneurial and modern system. This could act as a model for goat production improvement in other Mexican regions.

Keywords: participatory workshop, production system, socioeconomics