

Deutscher Tropentag, October 11-13, 2005, Hohenheim

"The Global Food & Product Chain— Dynamics, Innovations, Conflicts, Strategies"

## Characterisation of the Smallholders Livestock Production Systems of the South Region of Río Negro, Patagonia, Argentina

SEBASTIAN VILLAGRA<sup>1,2</sup>, CLEMENS WOLLNY<sup>1</sup>, CELSO G. GIRAUDO<sup>2</sup>, GILLERMO SIFFREDI<sup>2</sup>

<sup>1</sup>Georg-August-University Göttingen, Animal Breeding and Husbandry in the Tropics and Subtropics, Germany

<sup>2</sup>Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina

## Abstract

Aiming to identify key factors for rural development in the South Region of Río Negro, Patagonia, Argentina, smallholder livestock production systems affected by the international wool price crisis were characterised: sheep (S), sheep-goat (SG), sheep-cattle (SC) and sheep-goat-cattle (SGC), kept in three ecological areas: Monte (M), Central Plateau (CP) and Hills and Plateaus (HP). Households were significantly larger (p < 0.05) in SG, SC and SGC (3.5) than in S (1.7). Educational levels and demographics were similar between systems (p > 0.05). Household heads were on average 52 years old and 18% were illiterate, 69% attended elementary school and 14% attended secondary school. Sheep were dominant in all systems, with an average number per flock of 452 (SD 391) without significant differences among systems (p > 0.05). Goat flock and cattle herd sizes were 160 (SD 134) and 30 (SD 32), respectively. Horses were present in all systems with an average herd size of 18 (SD 12). Fenced perimeter was 82% on average, with a mean of 1.6 paddocks per farm. Farms located in the ecological area M kept significantly more sheep, goats, cattle and horses than in CP and HP (p < 0.05). Consequently, the number of Sheep Livestock Units (SLU) in farms located in M (660) was around 40% higher than the number of SLU in farms located in CP (375) and HP (360). Farms in M (4192 ha) were significantly bigger (p < 0.05) than farms located in HP (2156 ha) and CP (2155 ha), but stocking rate among the ecological areas was similar (3.8 ha/SLU) (p > 0.05). Farms in M fenced almost all the perimeter (98%), significantly more (p < 0.05) than the farms located in CP (79%) and HP (72%). The average number of fenced paddocks was not significant different across ecological areas. Summarising, farmers have low literacy, in diversified systems households are larger and sheep are still important in diversified systems; and farms located in the ecological area M are more resource endowed. Therefore, promotion of diversification and improvement of productivity, particularly in farms located in CP and HP, should be the priority for development.

Keywords: Diversification, ecological areas, Patagonia, sheep farms, smallholders systems

**Contact Address:** Sebastian Villagra, Georg-August-University Göttingen, Animal Breeding and Husbandry in the Tropics and Subtropics, Kellnerweg 6, 37077 Göttingen, Germany, e-mail: sebastianvillagra@hotmail.com