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Fencing and Sheltering Increases the Number of Marketable Lambs in Northern Patagonia, Argentina

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Abstract

Extensive sheep farming for wool production is the main form of agriculture in the arid and semi-arid plateaus of Patagonia, Argentina. The decrease of the world market wool price, lack of diversification and the low level of use of technology turned this system economically non-viable. Increasing the number of lambs for sale is an option to improve the economic situation. At the experimental station of INTA Bariloche, two management practices were evaluated to increase the number of marketable lambs: **1)** Closed grazing areas with electric fences during lambing season to improve the energy balance in pregnant and lactating ewes and protect the lambs against predators. **2)** Build sheds in this fenced paddocks to protect the newborn lambs. Six flocks were surveyed with a total of 1.264 sheep. On average the productive parameters observed were 53 % of lambs at marking time (three months age), 7 % of adult mortality and 20 % of lamb mortality. Fences were introduced on a smallholder farm (300 sheep). After 4 years of observations marking increased steeply to 83.3 %, the lamb mortality was reduced to 3 % and the adult mortality to 4 %. The number of saleable lambs projected from year 9 onwards was 3.8 times higher than without fences. The number of culled animals increased to 59 % and wool production decreased to 4 %. The cost-benefit ratio using 7 % interest rate was 3.28 and using 25 % interest rate was 2.36. Inside the fenced paddock, using sheds did produce significantly ($p < 0.003$) more lambs than without sheds. The additional gain can be expressed as a cost-benefit ratio, which was 1.53 and 1.14, using 7 % and 25 % of interest rate, respectively. Concluding, fencing and sheltering decrease lamb mortality and increase small farmers' net income.

Keywords: Electric fences, lamb mortality, Patagonia, sheds, sheep