

Beneficios y costos de la rehabilitación de pasturas degradadas en Honduras

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Summary

The impact of pasture degradation on animal productivity in six regions of Honduras was assessed, and pasture rehabilitation costs were estimated. The study, carried out in March 2004, involved the interviewing of 25 livestock producers and eight extension agents. The milk and beef production of cows grazing pastures with different levels of degradation was calculated, as well as the losses in income also attributable to the process of degradation. The proportion of pastures found at each level of degradation was determined for each of the six administrative regions of Honduras, and the different strategies to rehabilitate degraded pastures were identified and their cost calculated. A 4-level degradation gradient was defined, level 1 being non-apparent degradation and level 4, severe degradation. Based on personal and descriptive information provided by the interviewees, regressions were generated that better explained the loss in animal productivity at each level of pasture degradation. According to producers, 29% of the area under pastures in Honduras ranked as level 1 of degradation, whereas extension agents ranked 19% of the pastures as level 1. Similarly, livestock producers considered that 27% of the pastures were level 4 of degradation, while extension agents estimated that 31% ranked as level 4. According to producer estimates, each year Honduras ceases to produce 284,106 MT of fluid milk and animal live weight gains equivalent to 48,271 MT of beef due exclusively to the loss of productivity of pasture in level 4 of degradation, which is equivalent to 48% of the country's annual milk production and 37% of its beef production. In economic terms, losses in milk production totaled US\$63 million per year and those of beef production, US\$48 million. The cost of rehabilitating pastures of level 4 degradation in Honduras was estimated at US\$57.1 million, according to producers, and at US\$83.6 million, according to extension agents. These figures represented, respectively, 51% of the US\$111.2 million in annual income for sale of milk and beef that were not received and 52% of the US\$159.8 million in lower annual income per concept of lower sale of milk and beef. Livestock producers indicated that the average useful life of improved pastures was approximately 10 years, ranging from 9 years for *B. humidicola* and *Digitaria swazilandensis* to 12 years for star grass (*Cynodon nlemfuensis*). Extension agents, on the other hand, considered that grasses have a useful life of 8.4 years, ranging from 6 years for *D. swazilandensis* to 12 years for *B. brizantha* cv. Marandú. According to study results, the annual rate of degradation of pastures in Honduras varied from 10% to 12%. To eliminate pasture areas

of level 4 of degradation nationwide, it would be necessary to make a one-time investment of US\$57 million. However, the annual profit in increased milk and beef production would amount to 156,000 liters milk per day and 26,500 kg liveweight that amount to an additional income of US\$22.2 million per year. This should serve as both economic and production incentive for the private and public sectors to jointly develop and execute an action plan that allows paddocks in advanced state of degradation to be recovered.