



University of Kentucky
UKnowledge

International Grassland Congress Proceedings

XXI International Grassland Congress / VIII
International Rangeland Congress

The Perception of Management Needs in Bolivian Rural Communities

Andrea Pardini
University of Florence-Piazzale Cascine, Italy

L. Angeli
University of Florence-Piazzale Cascine, Italy

F. Peduzzi
University of Florence-Piazzale Cascine, Italy

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/21/17-1/23>

The XXI International Grassland Congress / VIII International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

The perception of management needs in Bolivian rural communities

Pardini A . , Angeli L . , Peduzzi F .

University of Florence-Piazzale Cascine , 18-50144 Firenze (I) andrea.pardini@unifi.it

Key words : grazing technique , Social Analysis System , pasture conservation

Introduction Pastures and rangelands are the largest part of Latin American agricultural land , but they are unfortunately sown after forest destruction that causes negative environmental impact . The rapid and excessive change of vegetation enhances sensibility to environmental factors and contributes to social disequilibrium and economical instability (FAO , 2006) . Crop diversification and association , including association of pasture and trees , are considered useful methods to sustain productivity and to conserve biological diversity . The management of complex vegetation is expensive , moreover results are visible only after several years , the slow changes reduce the perception of improvements in the rural (Pardini et al . , 2006) . A research has been done in Santa Cruz de la Sierra , area of Ciquitania , on agreement of the University of Florence and the Fundacion para la conservacion del Bosque Ciquitano in order to verify the request of improvements and the perception of the results in the farmers of the area .

Materials and methods We chose 35 farms of the area , representative of all the size typologies . The farmers were interviewed with SAS method (Social Analysis System) and the results shown on " wheel " figures following the method of Chevalier (2004) . Each wheel includes 5 rays (1 = grazing system ; 2 = forages in the dry season ; 3 = trees associated in pastures ; 4 = pasture productivity ; 5 = management of native pasture) , and the perception of technical-management level reached has 5 indexes shown on each ray (5 highest , 1 minimum) .

Results and discussion Our results on grazing techniques show that rotational grazing is the most frequent and farmers are happy with this (ray 1 , level 4) , however they consider more fencing useful to control better the movement and the effect of livestock on pasture , moreover there is need of more watering points in all sectors . There is not forage stock for the dry season and this is considered badly (2 , 1) , some standing hay can be available in farms but farmers would prefer to have good hay or silages . There are few trees in pastures and the farmers would prefer to plant more (3 , 1) but this is not done due to initial costs and to the long times necessary for returns . Pasture productivity is considered good and farmers would not consider fertilization or sowing (4 , 4) that , however , would increase costs and reduce biodiversity and make farmers dependent over imported selected seed . The management of native (naturalized) pastures is considered sufficient (5 , 3) but farmers would like to improve it with perimeter fencing to increase the rate of pasture ingestion .

Conclusions We conclude that farmers consider good the current pasture management even if this can be improved with seasonal adjustments of the animal stocking rates in better fenced sectors , that would benefit also of new watering points . Farmers consider good the current annual productivity , nonetheless there is seasonal shortage that should be faced with in-farm produced stocks . Tree planting (scattered , in rows , as windbreaks) is highly considered but this has to be supported by local authorities with free plants of 1-2 years and free shelter . More in general , the farmers of the area are oriented to introduce cheap improvements that cause little environmental impact and they would like to increase the complexity in the forage-pasture system planting trees and conserving native plants . These interventions will determine gradual improvement of the annual and seasonal pasture productivity and consequently of animal performances , probably slowly but at the same time good to conserve biodiversity .

References

- Chevalier J . , 2004 . S . A . S . Social Analysis System . http://www.sas-pm.com/guidelines/guideline_principles.htm . 15 March 2004 .
- Pardini A . , Peduzzi F . , Staglianò N . , Pinzi S . , Angeli L . , Argenti G . , 2006 . Influence of tree density on the botanical composition of pastures in Santa Cruz , Bolivia . Proc . IV Latin American Agroforestry congress . Cuba , Oct . 2006 , published on CD (ISBN 959 16 0478 5) .