Deutscher Tropentag, October 11-13, 2005, Hohenheim

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

Adoption and Impact of Forage Conservation Technologies Transferred with Contrasting Extension Approaches: A Current Research Project in Honduras and Nicaragua

Christoph Reiber[1], Rainer Schultze-Kraft[1], Michael Peters[2], Volker Hoffmann[3], Axel Schmidt[4], H. Cruz[5], M. Mena[6]

[1] *University of Hohenheim, Biodiversity and Land Rehabilitation in the Tropics and Subtropics, Germany*
[2] *International Centre for Tropical Agriculture (CIAT), Tropical Grasses and Legumes Project, Colombia*
[3] *University of Hohenheim, Agricultural Communication and Extension, Germany*
[4] *CIAT, Tropical Grasses and Legumes Project, Nicaragua*
[5] *Dirección de Ciencia y Tecnología Agropecuaria (DICTA), Honduras*
[6] *Instituto Nicaraguense de Tecnología Agropecuaria (INTA), Nicaragua*

Abstract

In extended areas of Central America feed shortage during the 5–6 month dry season severely limits livestock production. Alternative strategies to increase milk and meat production include hay and silage preparation for the dry season. However, due to required high investments, adoption of forage conservation methods by small-scale farmers has been low.

A research project in Honduras and Nicaragua aims at enabling small-scale farmers to adapt forage technologies to local conditions and meet the large demand for dry season feed. Production, conservation (in form of hay and silage) and marketing of improved grasses (*Brachiaria brizantha* cv. Toledo and *Brachiaria* hybrid cv. Mulato) and forage legumes (*Vigna unguiculata*, *Lablab purpureus* and *Cratylia argentea*) are promoted for groups of small-scale farmers using two contrasting extension strategies. The first strategy promotes a single best-bet solution technology package of a conserved high quality feed (e.g. a legume-grass mixture) packed in locally available plastic bags, whereas the second strategy consists of the development of locally suitable technologies through offering different promising alternatives and explaining the technical backgrounds to farmers who can then decide which one suits them best and make adjustments according to their specific situation. It is hypothesised that greater success occurs when innovation processes are facilitated through an interactive and experimental learning process involving modification, selection and promulgation of a promising technology by the users themselves rather than focusing on the promotion of rigid packages. Adoption, costs and benefits of both the technologies and R&D and extension strategies will be evaluated leading to recommendations for agricultural research and extension. Currently, experimenting with the new forage options has started and effects on milk production and liveweight gain are measured. Once farmers have begun to adopt their locally developed solutions, the successful technologies and innovation strategies will be scaled up through multi-actor interactions.

Keywords: Central America, extension, forage conservation, innovation

Contact Address: Christoph Reiber, University of Hohenheim, Biodiversity and Land Rehabilitation in the Tropics and Subtropics
private address: Drosselweg 6, 72501 Gammertingen, e-mail: chreiber@gmx.de