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"Competition for Resources in a Changing World: New Drive for Rural Development"

## Modalities of Farmer-led Research with Multipurpose Forages

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## Abstract

The agricultural R & D community still struggles to find a set of coherent technologies and approaches to help households in fragile environments with high risks and poor infrastructure to withstand setbacks and make use of opportunities as a result of changing circumstances. A promising technology is multipurpose forages providing income, food, fodder, shade and soil fertility. They can improve the environmental and socio-economic sustainability of smallholder production systems. A novel approach researching farmer-led experiments with multipurpose forages was evaluated in the hillsides of Honduras, where 200 farmers in 12 communities defined their research objectives and conducted experiments with different forage species. The experiments were farmer-designed and monitored and evaluated jointly by farmers and researchers. Around half of the participating farmers were women.

The variety of forages together with the chosen approach inspired farmers to different research modalities. Of the 169 implemented experiments, the farmers opted to carry out 50% by individual farmers on individual fields, 25% on a semi-collective basis in which at least part of the work – planting, weeding – is done as a group. Another 25% chose a collective approach where all activities were carried out together on fields allocated to the group. The share of individual trials increased with each subsequent research period - increased experience seemed to lead to more individuality. Farmers at higher altitudes tended to conduct experiments more collectively than at lower altitudes. Collective experiments were more likely to be formal than individual ones and showed higher scores, as did female managed experiments. Farmers obtained knowledge and experience with research processes and new forages, which were primarily regarded as a promising opportunity to increase food security. Contacts with research and development organisations as well as interactions with fellow-farmers and other communities were regarded as highly beneficial. Empowerment and self-esteem of women increased. Fringe benefits appeared to be an important incentive to participate in trials. Farmers turned out to be able to assess forage based technologies when given the possibility to experiment freely. In most cases it was sufficient to provide adequate information and to ensure a systematic follow-up.

**Keywords:** Farmer participatory research, food security, Honduras, multipurpose forages, research modalities

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