

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: SYNERGISTIC USE OF FEED, TECHNICAL TRAINING AND GENETICS

Improving feed, dairy management and cross breeding are all important technologies for improving dairy productivity. As part of the EQUIP FEED project, the synergistic application of these inputs and the improvements to livestock productivity were examined. The impacts of synergistic interventions can be large; a preliminary analysis of results showed that synergetic application of feed improvement and training has resulted in an increase of milk yield by more than 20% as compared to the control group.



Lead Institution:
International Livestock
Research Institute



Developed In:
Ethiopia



Innovation Type:
Technology



New/Adapted:
Adapted



Created For:
Women and
Men



Nutrition Linkage:
Improved
Productivity

The Problem and Its Importance

Livestock productivity in developing countries is limited by various and complex biophysical, policy, market and cultural constraints. Improvement of livestock productivity, therefore, requires a multi-pronged approach that solves multiple problems simultaneously. In Ethiopian context, limited supply of quality feed, limited adoption of livestock improvement technologies coupled with limited genetic potential of local breeds are important problems. A project that synergistically applies improvement in feed, knowledge through training and improved livestock genetics has been implemented across four regional states in Ethiopia, working with 96 farms and covering close to 200 dairy cows.

The Innovation and Potential Benefits

This innovation is a result of a study that involved farm animals owned by trained and untrained farmers. The trained groups received training in good dairy management practices that ranged from feeds and feeding, importance of water, milk handling, animal welfare, and farm hygiene to disease control, whereas farmers from the other three replicate untrained groups were not offered the training and they were treated as controls. The trained groups were further divided into those who practiced improved feeding and those that followed traditional feeding. Besides the training and feeding interventions, DNA samples of the experimental animals were analyzed to see if training and feed improvements had different impacts according to the breed of cows. A preliminary analysis of results showed that synergetic application of feed improvement and training has resulted in an increase of milk yield by more than 20% as compared to the control group. This suggests a net benefit in milk production for farms on treatment 3 (synergistic approach) of as much as 26.6% relative to the control and training only groups. Moreover, cows with high proportions of Holstein tend to produce more milk than indigenous cows; hence, crossbreeding should be a technology to consider.

Application of the Innovation

This innovation targets smallholders as end users, but it will need support from other actors including extension agents, feed producers, and researchers. Smallholder farmers will need technical training in dairy management, and feeding as well as knowledge of and access to animal health services.

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