

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: MOBILE APP-BASED FEEDING SUPPORT TOOL TO OPTIMIZE DAIRY ANIMAL PRODUCTIVITY

The innovation is a smartphone Feeding Support Tool application (app) that is used on Android smartphones for formulating least cost, nutritionally balanced rations for dairy cattle and buffalo with locally available feed ingredients. Feeding balanced rations, to meet the nutritional requirements of dairy animals in various production stages, increases milk yields and incomes of smallholder producers and decreases feed wastage and environmental pollution.



INNOVATION QUICK FACTS

Lead Implementing Institution: Heifer International Nepal



Category: Livestock Management



Applied in: Nepal



Innovation Type: Technology



New/Adapted: New



Created for: Women & Men



Nutrition Linkage: Food Safety

THE PROBLEM & ITS IMPORTANCE

The Nepal dairy sector contributes 8% to the Gross Domestic Product, but average dairy animal milk yield is only a third of that of many developing countries, mainly due to inadequate feeding. In the Terai belt of Nepal, dairy animal feeding is largely based on crop residues such as rice straw and grasses, the availability of which varies with season and land use pattern. The government of Nepal has identified dairy as one of the most promising agriculture sub-sectors due to the potential to increase yields from about 900 (current) to 3,000 liters/year.

POTENTIAL BENEFITS

An animal feeding trial with rations balanced with the app showed that using the Feeding Support Tool increased milk yield by cows and buffalo by 15% in just one month of use. Of farmers who tried the app, 94% reported an increase in milk yield and agreed that the balancing rations helps reduce costs associated with livestock feeding. The app can be used to balance rations of dairy cattle and buffalo, and it is also being adapted for goats. Use of this balancing rations through this app can result in more income generation from improved livestock and animal-source food sales.

APPLICATION OF THE INNOVATION

The free Android mobile application can be downloaded from [Google Play](#) (search “Heifer-LFST”). To apply the innovation, potential users need to be trained for one day on dairy animal feeding management, as well as on the use of the app in general. The application can be used to prepare balanced rations that will meet nutrient needs of dairy animals at various stages of production. As Android smartphones are widely available and used in Nepal, the financial requirement is limited to training users. The application can be used as part of extension services to improve the profitability and environmental stewardship of dairy production, by dairy producers and cooperatives, and/or by feed manufacturers or agro-veterinary dealers, among others.