FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: LOCAL LANGUAGE-BASED RATION FORMULATION SOFTWARE

This innovation consists of a ration formulation software program with an Amharic interface for users in Ethiopia and a French interface for users in Burkina Faso. This innovation also integrates local feed database information as well as the nutrient requirement formulas developed for local livestock breeds. The ration formulation software can help farmers use local feed resources to formulate a ration that both fulfills the nutrient requirements of different animals and also is least cost, thereby improving farm productivity and profitability.

Lead Institution: University of California, Davis

Developed In: Ethiopia & Burkina Faso

Innovation Type: Technology

New/Adapted: Adapted

Created For: Women and Men

Nutrition Linkage: Improved Productivity

The Problem and Its Importance

Ration formulation software programs are important tools for formulating least cost and most nutritious rations based on available feed resources. Most available software use English as the language interface, along with feed types and nutrient requirements based on Western livestock production systems, which are very different to the requirements of local or crossbred livestock breeds. However, these programs are not accessible to farmers, researchers and other stakeholders who use Amharic or French as their working language. In addition, the results of such software may not be applicable to the local context if the types of feeds recommended are costly or unavailable, or if the nutrient requirement formulas are inaccurate for local animal breeds.

The Innovation and Potential Benefits

This innovation will make it easier for technicians to formulate proper and low-cost rations based on locally available feed resources. Such rations will improve animal productivity among both smallholder and commercial livestock producers who need resources in Amharic or French and depend upon locally available feeds and animal breeds. This in turn will save the cost of production incurred due to feed wastage caused by over feeding and underfeeding.

Application of the Innovation

This innovation will be of importance to livestock production technicians who assist smallholder and commercial producers with the formulation of balanced rations. This innovation is also important for local feed processors, as it helps them formulate commercial concentrates specifically suited for local breeds. To implement this innovation, targeted end users will need to be aware that this resource exists and be trained in how to use the tool.

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