

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: TECHNOLOGY PACKAGE FOR PREVENTION & CONTROL OF MASTITIS IN DAIRY ANIMALS

The innovation is a package of best practices to prevent and control mastitis or livestock udder inflammation, which reduces milk production, producer incomes, and food safety. The package consists of good husbandry practices, including mastitis detection and prevention techniques such as the California Mastitis and milk conductivity tests, and post milking teat dipping and dry cow therapy, respectively.



INNOVATION QUICK FACTS

Lead Implementing Institution: Heifer International Nepal



Category: Livestock Management



Applied in: Nepal



Innovation Type: Technology



New/Adapted: Adapted



Created for: Women & Men



Nutrition Linkage: Food Safety

THE PROBLEM & ITS IMPORTANCE

Various studies on small and large farms in different parts of Nepal show that the prevalence of mastitis ranges from 14% to 60% in dairy animals (cattle and buffaloes). The resulting economic loss of US \$70/month/animal arises from a reduction in milk production (1.56 liters/day), unsuitability of milk for consumption due to contamination (blood or flakes), treatment expenses, extra labor required, and animal replacement costs in severe cases. There is a higher incidence (78%) of sub-clinical versus clinical mastitis due to poor husbandry and inadequate use of mastitis prevention technologies.

POTENTIAL BENEFITS

Adopting the package of best practices will reduce or prevent economic loss due to mastitis and result in higher yields of higher quality, safer milk. Qualitative and quantitative data from farmer surveys show that the innovation reduced sub-clinical mastitis prevalence from 55% at baseline to 28% at endline in dairy cows and from 78% to 18% in buffaloes within six months. The innovation increased awareness and adoption of good husbandry practices by farmers resulting in no reports of clinical mastitis since project inception.

APPLICATION OF THE INNOVATION

The mastitis reduction technology package can be tailored to different production settings and geographies. The prevention and control measures are simple, easily adoptable, and economically rewarding for dairy producers and cooperatives. Adopting the package would require about US \$15 per dairy animal when targeting 10,000 dairy animals. Costs for cooperatives (about US \$2,000) are needed mainly to establish milk testing and information feedback systems. Farmers will also need to purchase some small items such as povidone iodine and antibiotics, as needed. Once these inputs are secured, use of the innovation can be financially self-sustainable. Producers can use increased income through sales of higher quality milk to procure supplies needed to implement the best practices.

Feed the Future Innovation Lab for Livestock Systems | University of Florida

P.O. Box 110910 | Gainesville, Florida | Livestock-lab@ufl.edu | Website: <http://livestocklab.ifas.ufl.edu/>

Photo credit: Heifer International Nepal