

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: PIGEON PEA LEAF HAY FOR DAIRY CATTLE IN ETHIOPIA

This innovation consists of cheaper and improved feeding practices for dairy cattle in Ethiopia using a commonly available forage legume: pigeon pea leaf hay. The improved practices will increase the performance of cattle in areas where access to quality concentrate feeds can be challenging.



The Problem and Its Importance

In Ethiopia and many developing countries, a shortage of affordable quality livestock feed limits animal productivity. Low-quality feed lacks nutritive value and negatively affects animal health, growth, and milk yield. And using commercially available concentrates as supplemental feeding is often too expensive for producers, especially smallholders. Consequently, these challenges can affect producers' income and negatively impact national food and nutrition security.

The Innovation and Potential Benefits

Pigeon pea (*Cajanus cajan*) is a dual purpose legume crop that is commonly grown as animal feed and for human consumption in Ethiopia and in many other countries. The leaves (pigeon pea leaf hay), which are not consumed by humans, can be fed to livestock. It is a fast-growing and protein-rich fodder that can enhance feed rations by replacing commercial concentrate, which is often the most expensive ration ingredient. Devoting 0.1 ha to pigeon pea production can replace 800 kg of purchased concentrate without negative impacts on growing or lactating cattle productivity.

Application of the Innovation

This innovation was developed in Ethiopia, and it can be adapted for use in other countries where pigeon pea is grown. To use the innovation, extension and outreach efforts are needed to disseminate knowledge about the optimal replacement rate of pigeon pea leaf hay in dairy cattle rations. Disseminating the innovation through dairy producer associations via extension and development organizations can facilitate uptake.



Lead Institutions:
Kansas State
University and
Hawassa University



Developed In:
Ethiopia



Innovation Type:
Management
Practice



New/Adapted:
Adapted



Created For:
Women and
Men



Category:
Production Systems
Research