Milking Crops for all their Worth

Demand for milk and meat is increasing in South Asia, and this increases the demand for animal feeds. For poor households, crop residues are the main source of animal fodder, since they cannot afford to buy in feed. Sales of residues for fodder also provide a useful source of additional cash income.

Sorghum and groundnuts provide most of the crop residues for animal feed. However, these crops are susceptible to diseases that are likely to affect the quantity and nutritive value of the residues, as well as grain yield. Ultimately this reduces milk production.

A CPP-funded project is complementing other work to improve the quality of fodder, coordinated by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), a CGIAR (Consultative Group for International Agricultural Research) centre based in India.

The project conducted a participatory socio-economic study to assess farmer perceptions, their awareness, and the relative importance and impact of plant diseases in farmer livelihood systems. Village case studies were carried out in four villages in the state of Andhra Pradesh on the Deccan Plateau using participatory rural appraisal (PRA) techniques.

PRA with male and female farmers

The results from PRAs suggest that sorghum and groundnut crop residues constitute a major source of fodder, and particularly provide 'feed security' to the ruminants during summer, when few alternatives are available to farmers in dryland areas.

Farmers believe that diseases reduce the quality of crop residues, which leads to feed refusals and poor health in ruminants. The effects on the quality of crop residues are most serious in groundnut, with farmers reporting losses of up to 50% in foliage and fodder yield. In sorghum, the perceived losses are 10–30%, but the low prices offered by traders for diseased fodder reduce the earnings of the poor from fodder sales.

The poor depend on the sale of sorghum fodder as a source of cash

Commercial markets exist for fodder transactions of sorghum stover, but no such markets are reported for groundnut residues. The poor are the link to the sorghum fodder market. Therefore, validation of fodder-related technologies through the poor is necessary to increase cash incomes from fodder sales.

Genetic improvement of feed-quality of crop residues, without compromising on essential yield traits, is critical for farmer acceptance of new sorghum and groundnut varieties. Research on inexpensive and easy-to-use pest and disease management options is necessary to improve the quantity and quality of residues of both sorghum and groundnut.

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