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“Bridging the gap between increasing knowledge and decreasing resources”

An Analysis of Dissemination of Livestock Feed Technology: The Case of Bihar an Eastern Indian State

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Abstract

Despite dairying in Bihar being a major income source for small and marginal farmers, livestock productivity is low compared to other states in northern India, mainly due to inefficient feeding practices (e.g. concentrate components are traditionally fed separately) and the limited quality of available commercial concentrates. For these, ILRI's laboratory analysis indicates quality limitations especially in regard to metabolizable energy and digestibility. In this context, a balanced compound feed has been formulated, based on locally available components and nutritionally superior to the commercial concentrates available in local markets. It consists of 37 % crushed cereal grains, 30 % cereal brans, 20 % oil cakes, 10 % pulse husks and some minerals. The technology was introduced to farmers through various training modules, group discussions and trials in 2011. Initially, 400 dairy farmers from Samastipur district (Bihar), selected for its milk production and marketing potential, were trained in the preparation of the new balanced compound feed, followed by two-month farmer trials.

To assess the adoption and the impact of the developed feed technology, relevant data were collected through a survey of 360 randomly selected households in the target area. Of these, 159 farmers had participated in trainings and trials. A binary logit model was used to determine the adoption of the technology by farmers. The results indicate that though most farmers who had participated in trainings and trials have some knowledge about ILRI's feed technology, only 60 % of these actually remember the formula or the main message. Further, only 24 % were continuing with feeding the new feed. On the other hand, 28 % of the non-trial/training farmers in the sample have knowledge on ILRI's feed with 6 % of these also feeding it. In regard to adoption determinants the results show that farmers who had received training were more likely to adopt the new technology. Participation in feed trials further increased the likelihood of remembering training messages while spill-over was hardly observed. Nevertheless, awareness of and training on balanced feeds among farmers should be further improved to increase adoption.

Keywords: Bihar, dissemination, feed technology, livestock