

An Analysis of Dissemination of Livestock Feed Technology: The Case of Bihar in Eastern India

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Interviewing Farmer

Photo credit: Dhiraj Singh

Introduction

- ❖ Dairy farming in Bihar is a major source of income for small and marginal farmers.
- ❖ There are constraints to effective transformation of dairy production from a subsistence-oriented to a profitable commercial venture.
- ❖ High cost of commercial feed along with low quality of available feed hinders animal productivity and limits economic returns from dairy production.
- ❖ ILRI's laboratory analysis indicates quality limitations especially in metabolizable energy and digestibility of available feed resources.
- ❖ To increase availability of quality feed, ILRI has formulated a balanced concentrate feed based on locally available ingredients/resources in 2011-12.
- ❖ With support from the Cereal Systems Initiative for South Asia (CSISA) project and in collaboration with national partners, a series of training and demonstration activities was implemented to disseminate this feed technology in CSISA-Bihar hub sites.
- ❖ This study presents the results from the analysis of data on adoption and dissemination of this feed technology.

Materials and methods

- ❖ Two stage sampling method (stratified and random) was followed to select the 360 farm households in two blocks of Smastipur, Bihar
- ❖ Out of 360 surveyed households, 159 participated in training or trials while the others did not.
- ❖ Data were collected using structured questionnaires and processed using SurveyBe software.
- ❖ Descriptive statistical analysis was used to analyze the survey data.

Results

The results indicate that the rate of adoption of ILRI-CSISA feed technology is low

Adoption of ILRI-CSISA promoted feed and sources

Indicators	Participants	Non-participants
Number	160	200
Number of farmers Knows about ILRI-CSISA promoted feed	160	55
Number of farmers continuing	30	11
Sources of information of ILRI-CSISA feed by non-participants		
Heard from neighbours		53
Heard from relatives		3
Heard from local services		0
Heard from ILRI-CSISA field guy		10
Heard from SHG		2

Dissemination of ILRI-CSISA feed to other farmers

Technologies	Within Village	Outside Village	Total
Nutritional requirements	213	109	322
Chopping straw	25	17	42
Feeding wheat bhusa	72	28	100
Feeding maize stover	10	5	15
About ILRI-CSISA feed	846	460	1306
How to preparing ILRI-CSISA feed	704	456	1160

Reasons of adoption/non-adoption of ILRI-CSISA feed

Reasons for adopting ILRI-CSISA feed	% farmers	Reason for not adopting ILRI-CSISA feed	% farmers
Low cost technology	27	High cost technology	60
Easy to follow	39	Difficult to prepare	51
Can prepared local available resource	83	Resources not available locally	27
Increase milk yield	93	No change in milk yield	21
Improved animal health	98	No change in animal health	17
Low labour requirement	29	High requirement of labour	44

Farmer's knowledge before and after intervention

Topics	Participants		Non-participants	
	Before Intervention	After Intervention	Before Intervention	After Intervention
breeding	Average	Improved	Poor	Improved
feed management	Average	No change	Average	No change
nutrition needs for cattle	Average	No change	Average	Improved
maize Stover feeding	Average	No change	Average	No change
wheat straw feeding	Average	No change	Average	No change
detect quality of dry fodder	Average	No change	Average	No change
growing green fodder	Average	Improved	Poor	Improved
feeding oil cakes	Average	Improved	Average	No change
feeding balanced feed	Average	Improved	Average	Improved
preparing balanced feed	Poor	Improved	Poor	Improved
feeding mineral mixture	Poor	Improved	Poor	Improved
how to increase milk yield	Average	Improved	Poor	Improved
deworming/vaccination	Average	Improved	Poor	Improved
treat common diseases	Average	No change	Poor	No change

Conclusion

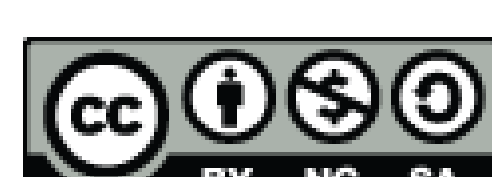
- ❖ 20% of farmers who have participated in training are using the ILRI-CSISA promoted feed compared to 6% of the non-participants.
- ❖ Among non-participant sample farmers, 28% have heard about ILRI-CSISA promoted feed.
- ❖ Neighbors are main source of information about the technology among farmers who did not participate in training, followed by CSISA project field staff.
- ❖ Participant farmers have shared the information on how to prepare the ILRI-CSISA promoted feed to more than 1200 farmers.
- ❖ Knowledge of most of farmers on concentrate feed has improved after the training.
- ❖ Improving awareness of this feed technology through training and demonstration activities will facilitate increased adoption among dairy farmers in Bihar.



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