

AN OVERVIEW OF FARMER FIRST PROGRAMME OF NDRI, KARNAL

Article Id: AL202040

ParashuramKambale^{1*} and Gopal Sankhala¹¹ Dairy Extension Division, ICAR-National Dairy Research Institute, Karnal, Haryana-
132001, IndiaEmail: parsu1kal@gmail.com

The Indian agriculture and dairying has witnessed a quantum jump in production through various extension approaches by the Government of India and Indian Council of Agricultural Research (ICAR). These approaches brought lot of success in terms of raising production & productivity and addressing issues of the farmers but in these approaches technology was considered as an important factor than the farmers, farmer was considered as a recipient of the technology outputs. Due to changed agricultural situation there is a need of new approaches for project development involving innovation and technology development involving innovation and technology development with the strong partnership of the farmers for developing location specific , demand driven and farmer friendly technological options. So ICAR comes with new programme called the farmer FIRST (Farm, Innovations, Resources, Science Technology) in October,2016.

Farmer FIRST Programme of NDRI, Karnal

Under the farmer FIRST programme of ICAR, National Dairy Research Institute, Karnal undertaken the project entitled “Capacity Building of Resource Poor Farmers in Paddy-Wheat cum Dairy Production System through Farmer FIRST Programme under Irrigated Agro-Eco Region of Haryana”. This project was implemented in the following villages of Karnal district namely Samora, Churni, KamalpurRoarn, NaglaRoarn and Garhigujaran.

Technological interventions under the Project

Initial interaction and discussion with farmers helps in identifying their needs, problems and accordingly the following interventions were implemented under this project from 2016-18.

SI NO	Category	Interventions	No. of Households covered
1	Crop based Interventions	Integrated Pest Management (IPM) in Paddy	150
2		Effective weed control measures in wheat in Wheat for Higher productivity and income under paddy- wheat production system	100
3		Integrated Nutrient Management in Wheat	148
4		Introduction of Dhaincha crop in summer to improve soil health & for fodder availability	25
5		Round the year Green fodder production (Napier grass with seasonal fodder crops)	183
6	Dairy based Interventions	Balanced feeding technology for higher milk production in dairy cows/buffaloes	58
7		Minerals and Vitamin supplementation in cows and buffaloes	392
8		Bypass fat supplementation	57
9		Mastitis control programme using CMT & AST as effective diagnostic procedures	143
10		Control of Ecto& Endo-parasitic infestation among dairy animals	117
11		Theliariosis control programme in cross-breed cows	220
12		Estrus Synchronization in dairy animals	114
13		Ovulation Synchronization in dairy animals	132
14	Advisory based	Development of SMS portal for the farmers	Full coverage
15	Horticultural based	Vegetable based cropping systems	67
16		Introduction of fruit cultivation as nutritional gardens	82
17	Enterprise based	Milk processing unit for self-employment	1 unit

(Source: Annual report (2018) on farmer FIRST programme of NDRI)

Results of the technological interventions

SI NO	Category	Interventions	Results
1	Crop based Interventions	Integrated Pest Management (IPM) in Paddy	Healthier crop yield upto 23-24 q/acre at farmers field
2		Effective weed control measures in wheat in Wheat for Higher productivity and income under paddy-wheat production system	Weed free crop with average yield of 24-26 q/acre at farmers field
3		Integrated Nutrient Management in Wheat	Use of all possible sources on nutrient management resulted in higher productivity
4		Introduction of Dhaincha crop in summer to improve soil health & for fodder availability	Dhaincha crop provided leguminous fodder @160q/ha. incorporation of dhaincha into soil has reduced the pH& EC and increased organic carbon
5		Round the year Green fodder production (Napier grass with seasonal fodder crops)	Increased green fodder supply throughout the year & increased area under fodder crops
6	Dairy based Interventions	Balanced feeding technology for higher milk production in dairy cows/buffaloes	Along with increase in milk yield Fat & SNF content in the milk has also been increased
7		Minerals and Vitamin supplementation in cows and buffaloes	Increase in milk yield & reproductive parameters of the animals were also favorably improved
8		Bypass fat supplementation	Average increase in milk yield 1-1.5 litres. Improvement in body condition score. Increase in fat & SNF was noticed
9		Mastitis control programme using CMT & AST as effective diagnostic procedures	Farmers awareness regarding control of mastitis was observed
10		Control of Ecto& Endo-parasitic infestation among dairy animals	Reduced infestation of ecto/endo parasites and also increase in milk yield & animal performance was observed
11		Theliariosis control programme in cross-breed cows	The vaccinated animals were observed fully protective.
12		Estrus Synchronization in dairy animals	Overall success rate was observed as 76% and proved to be set tool to tackle the existing infertility problems in dairy animals
13		Ovulation Synchronization in dairy animals	Observed success rate was 78%
14	Advisory based	Development of SMS portal for the farmers	Helping in organizing & disseminating technological and other related information
15	Horticultural based	Vegetable based cropping systems	Additional income from vegetable cultivation
16		Introduction of fruit cultivation as nutritional gardens	Good growth of plants
17	Enterprise based	Milk processing unit for self-employment	Group of 15 persons were given training at NDRI. One entrepreneur is successfully running dairy unit in the Samora village as VIREN DAIRY.

(Source: Annual report (2018) on farmer FIRST programme of NDRI)

Apart from these study conducted by Begum, M (2018) on Assessment of Interventions implemented under Farmer FIRST Programme of NDRI show the following results

- The overall extent of knowledge in Ecto-parasite control was 86.25 percent followed by cultivation of Maize round the fodder production (86.00 %).
- The percent of knowledge gain was highest in case of Mineral mixture about 85.00 percent followed by Theilariosis vaccine about 83.50 percent.
- The benefit/cost ratio was calculated 1.63:1 in case of DSR, IPM in paddy was 2.12:1 and for fodder maize was 1.63:1.
- The economic performance of dairy intervention was observed in terms of increase in milk yield, improvement in health and reduced risk of disease occurrence.
- The major feedback about the crop implemented interventions were very poor germination percentage in DSR technology, reduced risk of pest attack due to use of IPM in paddy and Dhaincha improved the soil health.

Activities under this project



FFP project team Field Visits



Training to farmers



Treatment to animals

(Source: NDRI FFP web portal)

Conclusion

The programme is running successfully with good responses from the farmers. Farmers were benefited from the different interventions under this programme. The major feedback about the crop implemented intervention was reduced risk of pest attack due to IPM and Dhaincha improved the soil health. The major feedback about the dairy implemented intervention was increase in milk yield, increase in reproductive efficiency and improvement in health. The economic performance of most of the selected interventions helped to increase the income of respondents

References

- Anonymous Report (2013) Project Framework on Farmer FIRST Division of Agriculture Extension, ICAR, New Delhi
- Annual Report (2018) on farmer first programme of NDRI, Karnal
- Begum, M. (2016). Assessment of Interventions implemented under Farmer FIRST Programme of NDRI. National Dairy Research Institute, Karnal, Haryana