Chapter-V

SUCCESS STORIES

IMPACT OF FODDER BANK IN HAMIRPUR DISTRICTS OF BUNDELKHAND REGION

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Situation analysis/problem statements: - India inhabits 15% of world's livestock population on 2% geographical area with 5.23% cultivated fodder area. The fodder production in the country is not sufficient to meet the requirements also the forages offered are mostly of poor quality. Feeding accounts 60-70% of total cost of milk production. Feeding based on green fodder is found comparatively more cost effective therefore, green fodder production must be encouraged. Hamirpur district of bundelkhand region is a part of Chitrakoot Dham division of Uttar Pradesh State, which lies between Lattitude 25.7913^{0}N and Longitude 80.0088^{0}E. Two major rivers namely Yamuna and Betawa meet here. On the bank of river Betawa lays the "coarse sand" which is exported to many parts of the Uttar Pradesh. The farming community of this region is facing scarcity of fodder to their live stocks, which leads major constraints in increasing live stock production up to the mark. This situation also promotes "ANNA PRATHA" in region, which became a serious threat to agriculture production system. In "ANNA PRATHA" farmers open their cattles (especially cow) free for grazing. Due to these situations, farmers cultivate only Rabi season crop after managing the "ANNA ANIMALS" at community level. Keeping above facts in mind our team has been planned to develop fodder bank in adopted village under NICRA (National Innovations on Climate Resilient Agriculture) project of Krishi Vigyan Kendra, Hamirpur (Uttar Pradesh).

Plan, Implementation and Support: - The team of Krishi Vigyan Kendra, Hamirpur, Uttar Pradesh has been conducted baseline survey in adopted village and was found that farmers did not practice the cultivation of fodder in scientific manner. This leads scarcity of green fodder that was identified as great constraints in increasing the production of live stocks. In NICRA project, there is a provision to establish fodder bank to meet out the situations identified. To implement our plan, we have been selected 23 farmers with about 09.2 ha of land during cropping season of Kharif, however in cropping season of Rabi 32 farmers were selected with 12.8 ha of land under fodder production. The selected farmers were facilitated to cultivate improved varieties of fodders in participatory mode during cropping season of Kharif and Rabi and they were also trained to store the surplus amount of fodder as hey. Hey fodder was utilized as well as sold as per requirement during shortage of forage to live stocks. Details of fodder crops and their varieties are mentioned as below:-

Cropping season	Crop	Variety	No. of farmers	Area (ha)
Kharif, 2019-20	Maize	African tall	05	2.0
	Sorghum	MP-Chari	18	7.2
Rabi, 2019-20	Barseem	Wardan	16	6.4
	Oat	JHO-822	16	6.4

Sowing: - The crops were sown in first fortnight of July during Kharif whereas, first fortnight of October during Rabi. The seeds of barseem were mixed with mustard in ration of 1:1 before sowing for better yield performance.

Nutrient management: - The specific nutrients to the fodder crops were provided on the basis of soil test recommendations. Total amount of phosphorus (P_2O_5) and potassium (K_2O) were

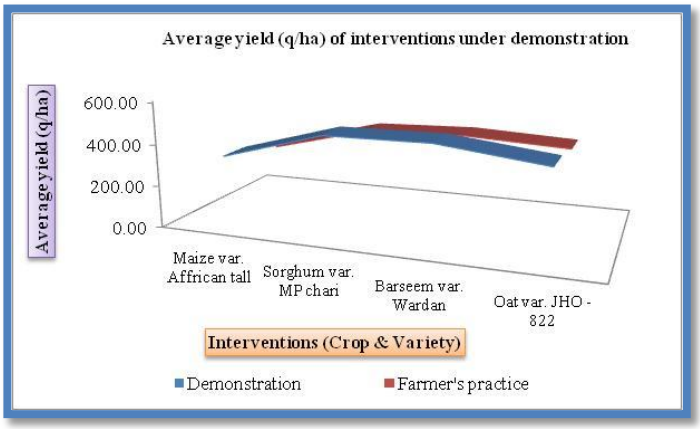
applied as basal dose at the time sowing however; nitrogenous fertilizer (N) was applied in several split doses recommended for particular crops.

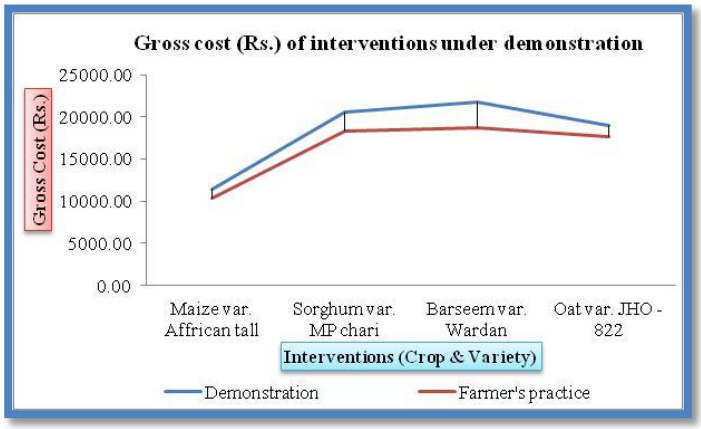
Water management: - Need based irrigation was provided to get better yield of fodder crops. During Kharif season, only one or two irrigation was given in dry spell however, in cropping season of Rabi, frequent irrigation was provided at weekly interval.

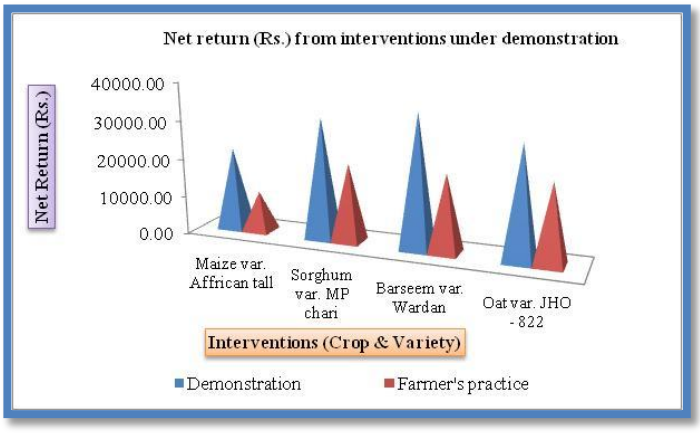
Output:-

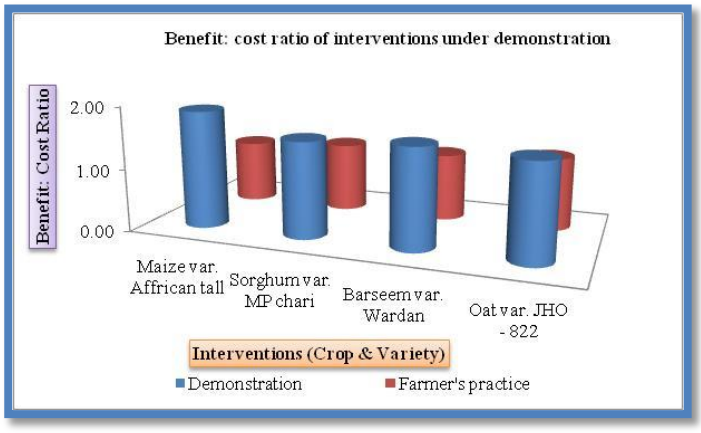
- ✓ About 20 – 25% increase in yield of green fodder over farmers practice was recorded during cropping season of Kharif however, in cropping of Rabi, it was found from 09.0 – 17.7% increase.
- ✓ Cost of cultivation in Kharif cropping season was accounted from Rs. 11454.0 - 20629.0 whereas, during Rabi, its range was observed from Rs. 19010.0 – 21767.0.
- ✓ Gross return from fodder production during the year was ranged from Rs. 33057.4 - 56539.3 only.
- ✓ Net return from intervention of fodder production was found Rs. 21603.0 – 31654.1 during Kharif while, in cropping season of Rabi, it was accounted Rs. 29230.3 – 34771.5 only.
- ✓ The benefit: cost ratio of these interventions ranged from 1.54 – 1.89 however in farmer's practice it varied from 1.02 – 1.17 only.

Outcome: - Team Krishi Vigyan Kendra, Hamirpur, Uttar Pradesh and a group of farmers assess









the performance of interventions jointly and found that about 45 – 56 % increase in yield of fodder crops over farmer's practice. The assessment team was also analyzed the economic prospects of technology demonstrated and were revealed that improved varieties of fodder crops gave comparatively higher return and benefit: cost ratio.

Impact:- The farmers engaged in this programme were earn about Rs. 2500 – 4500 addition income from surplus fodder during scarcity and was gotten comparatively more yield from their live stocks. Introduced varieties of fodder crops (maize, sorghum, barseem and oat) were appreciated by the farmers and they showed their keen interest to incorporate these varieties in next year planning.

Training of farmers

Distribution technological input

Crop view (Barseem var. - Wardan)

Crop view (Maize var. – Affrican tall)

Field day to assess outcome of intervention

Storage of surplus fodder as hey

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