Success Story

Title: Yield enhancement through adoption of HYV rapeseed-mustard in rice-fallows

Farmers Profile

Name: Reameikip Aimol

Gender: Female

Age: 47 years

Contact No.: 8974817906

Address: Unapal, Chandel

1. Challenges

Majority of the fields in the Chandel district are situated across the hilly slopes with shallow and gravely soils. Shifting cultivation (Jhum) is one of the predominant agricultures practiced by the people. Utilization and improvement of soil resources is of paramount importance for enhancing crop production. The population growth in this region is rapid and food demands are speedily increasing but large chunk of the area is under fallow after the rice crop. Oilseed cultivation in Chandel district faces several constrains, such as water scarcity during post-monsoon season, lack of irrigation facilities, short time lag after rice harvest for seed sowing, lack of soil test-based fertilizer recommendations and high incidence of pests and diseases in late sown crops. As a result, only monocropping of rice is practiced and the farmers leave their land fallow. It was realized that rice-fallow cropping system may be substituted by introducing oilseed crops along with other possible measures with the hope that rapeseed-mustard will not only provide additional yield coupled with better land use efficiency but also will help the resource poor of the tribal farmers of the region in improving the livelihood and nutritional security

2. Initiative

For enhancing the production and productivity of oilseeds and to increase the cropping intensity of the district, Krishi Vigyan Kendra, Chandel, after observing the suitability of the conditions and situations, has intervened to popularize the scientific cultivation and production

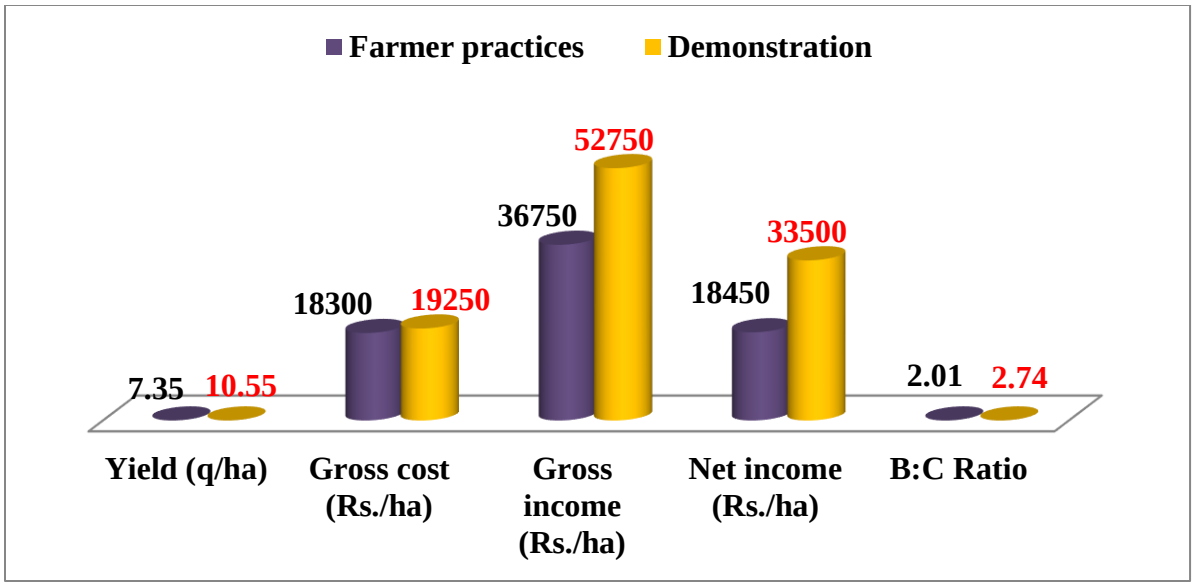
technology of rapeseed-mustard var. NRCHB-101 which is a high yielding variety and has distributed the seeds under Cluster Frontline Demonstration on Oilseeds, sponsored by National Food Security Mission in rice fallow areas. The Rapeseed –mustard var. NRCHB-101 is a long duration (130-150 days) variety. The plant height may range from 1-1.5 m depending upon the soil type and fertility status. Pod (siliqua) is medium oppressed type with 150-200 pods/plant and 15-25 seeds per pod. It is a bold seeded type with a potential yield of 16-17 q/ha.

3. Key result/insight/interesting fact

Growing the second crop in rice–fallows is a great challenge as post-rainy season often confront a series of abiotic and biotic stresses, fast depletion of the soil-moisture after rice harvest, lack of irrigation facilities, poor access to extra uncertainty in rainfall event, poor soil structure and problems of stray cattle, are some of the major constraints in cultivation of winter crops in rice–fallows. Taking all these challenges in hand, Mrs. Reameikip Aimol, age 47 years of Unapal village, Chandel cultivated the rapeseed-mustard var. NRCHB-101in an area of 1.00 ha of land after harvesting of rice crop with full package of practices transferred by the KVK staffs through training, demonstrations, and method demonstrations. Instead of leaving the land fallow after rice she could produce 10.55 q/ha of mustard seeds and earned the net profit of Rs.33500/ha with the benefit cost ratio of 2.74.

4. Impact

The present success story in the field of Mrs. Reameikip Aimol indicates that rapeseed-mustard is a climate resilient crop which can be grown without irrigation in the residual soil moisture. By growing in rice fallow areas, the farmers could increase the productivity, increased the cropping intensity and earned an additional income with less effort and the soil is also protected from erosion due to the retention of surface residues and reduces organic matter depletion. From her success, surrounding farmers learned that rice fallow offers a great opportunity to maximize the area of oilseeds with adoption of advanced agro-techniques. A farmer is very much satisfied with the technology and also to the KVK Chandel.



5. Lessons Learned

Abiotic and biotic stresses in rice–fallows are a great challenge and from these challenges, she learned to manage and improve or even transformed the efficacy of efforts. Mrs. Reameikip Aimol overcomes all the challenges by attending the training programme to update the latest technology and by taking support from KVK Chandel. To take up the second crop in rice fallows she would grow short duration rice and sow the second crop early as soil-moisture conservation and mitigation of abiotic stresses is the key to successful trapping of rice fallows and time management will play a great role in successful crop production.

Fig: Performance of Rapeseed-mustard in Mrs. Reameikip Aimol's Field