



Lentil cultivation brings smile to the tribal farmers of Tripura

D. Dey¹, D. Nath¹ and P.B. Jamatia²

¹Krishi Vigyan Kendra, Divyodaya, CHEBRI (TRIPURA) INDIA
(Email: spd020@yahoo.co.in)

²Department of Agriculture, Government of Tripura, AGARTALA (TRIPURA) INDIA

Lentil, a popular pulse in the daily diet on Indian population, is a highly potential crop in the rice fallow. In Tripura, where a large part of the rice area remains fallow after *Kharif* rice, lentil has a very good potential for increasing farm income as well as cropping intensity. Being a pulse crop, it also improves soil fertility and a very good option for crop rotation. Lentil cultivation in Tripura faces several constrains, such as water scarcity during post-monsoon season, lack of irrigation facilities, short time lag after rice harvest for seed sowing and flower dropping and poor pod setting in late sown crops as a result, only mono cropping of rice is practiced and the farmers leave their land fallow.

The intervention : KVK, West Tripura in collaboration with Department of Agriculture, Government of Tripura implemented Cluster Demonstration on lentil for augmenting lentil production of tribal farmers of North Pulinpur Village of Khowai district of Tripura under National Food Security Mission (NFSM) during *Rabi*, 2014. Initially some capacity building programmes were organised on lentil cultivation technology in which skill based knowledge on the technology was imparted to the farmers. The technology was first adopted by the progressive farmer Mr. Ajit Debbarma. Along with him 2 other farmers also took up the cultivation on lentil in cluster mode. KVK provided the critical inputs like seeds, fertilizer, FYM etc. and also provided cash assistance for different intercultural operation for successful demonstration on the technology under NFSM. Demonstration was conducted in the field of these 3 tribal farmers in a cluster approach for getting better visibility of the technology taking HUL-57 as the HYV. The crop was sown in the first week of November with the adaptation of minimum tillage. All the scientific management practices were adopted in the demonstration plot starting from application of lime,

fungicide treatment (Bavistin 2g/kg of seed), seed treatment with Rhizobium (20g/kg of seed) by overnight soaking in water and Integrated Nutrient Management (INM) practices.

Thereafter, regular monitoring of the demonstration plot was made by KVK scientists along with higher officials of Department of Agriculture, Govt of Tripura and provided timely advisory services in different growth stages of the crop. Besides, spray of botanical pesticides without affecting the beneficial pests and use of foliar application of 2 per cent Urea at pre-flowering stage was demonstrated.

Impact: With the lentil cultivation;

the group of farmers got an average yield of 11q/ha which enhanced their income by getting an average net profit of Rs. 34000.00/ha with a low investment of Rs. 32000.00/ha.

Motivated by this success many farmers of North Pulinpur village have shown their interest in cultivation of lentil in the next growing season this is the major impact of this

technology demonstration programme

under NFSM. Moreover, post harvest soil data

reveals that there is a sharp increase in available nitrogen status (From 272 kg/ha to 317 kg/ha) due to the Nitrogen fixing capacity of the crop which ensures better sustainability along with better profitability.

The present success story in the farmers' field indicates that lentil is a climate resilient crop which can be grown without water in the residual soil moisture. By adopting minimum or zero tillage, the farmers could increase the productivity, reduce cost of cultivation, increase the cropping intensity and can earn an additional income with less effort. Zero tillage or minimum tillage also helps in timely sowing, conserves soil moisture which requires less water, saves tillage cost and time. It helps in soil to protect from erosion due to the retention of surface

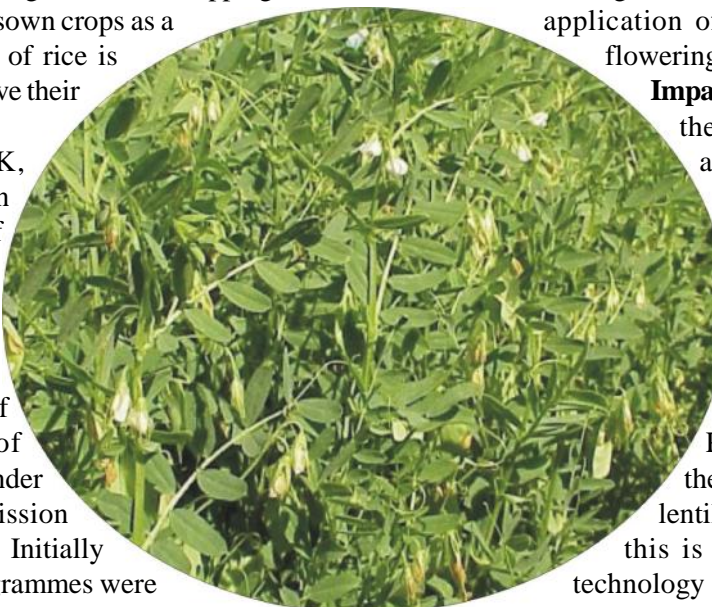




Table 1 : Economics of lentil cultivation

Crop	Variety	No. of farmers	Av. yield (q/ha)	Av. cost of cultivation (Rs.)	Av. gross income (Rs.)	Av. net return (Rs.)	Av. B:C
Lentil	HUL-57	3	11	32000.00	66000.00	34000.00	2.09

residues and reduce organic matter depletion. The improved version of lentil cultivation may be recommended to the resource poor farmers of Tripura condition in the context of climate change.

Scope of Up-scaling : The scope of minimum tillage lentil cultivation practice is very high in Tripura as because most of the lands remain fallow after cultivation of Aman paddy. Moreover, minimum tillage should be encouraged as because this practice adopt any minimum tillage operation prior to sowing with the assumption that moisture in the soil losses once the soil is open and seeds may not be able to germinate. In Tripura, *Rabi* cultivation is mostly rainfed and

dependent on the conserved moisture in the soil as there is no facility for irrigation. The best time for sowing lentil is before 15th November, however, as the fields are occupied with the paddy crop even up to November farmers are not able to sow crops in time. Moreover, if the crop are to be cultivated by tilling the soil, at least 15-20 days will be wasted for land preparation leading to soil moisture loss and delayed sowing and the seeds may not be able to germinate. So, the best optimum for a good harvest of lentil under the rainfed situation in Tripura is adaptation of minimum tillage cultivation with an improved scientific approach.

Received : 21.03.2015

Revised : 07.05.2015

Accepted : 19.05.2015



HIND INSTITUTE OF COMMERCE AND BUSINESS MANAGEMENT

Invitation

INTRODUCING THE LATEST NAMES IN RESEARCH SPECIFIED JOURNALS & MAGAZINES

Hind Institute of Commerce and Business Management of Research sector invites proposal/ consents from academicians and scientists for their incorporation in different bodies as Advisory/ Executive/Editorial Board for the forth coming issues of the Journals published by the society.

Internationally Refereed Research Journal of the H.I.C.B.M.:

RNI : UPBIL/2008/24399

ONLINE ISSN : 0976-7940

ISSN : 0974-2646

INTERNATIONAL JOURNAL OF COMMERCE AND BUSINESS MANAGEMENT

Accredited By NAAS : NAAS Score : 2.65

HEAD OFFICE : ASHRAM 418/4, SOUTH CIVIL LINES,
NUMAISH CAMP, MUZAFFARNAGAR-251 001 (U.P.) INDIA

Tale Fax : 0131-2622221, **Mobile :** 09410284909

Website : www.researchjournal.co.in

E.mail : hahs_2005@yahoo.com, hind_society@yahoo.com, hahs1624@gmail.com; researchjournal2005@gmail.com