



## TRANSFER OF TECHNOLOGY THROUGH CROP CAFETERIA AMONG FARMING COMMUNITIES OF DISTRICT BALRAMPUR, (U.P.)

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### ABSTRACT

*Crop Cafeteria plays an important role of facilitator in the process of technology transfer among farming communities. It provides practical experiences based on principle of 'Seeing believes' and face to face views along with KVK's technocrat for disseminating technical know-how to the farmers, rural youths and extension functionaries. Krishi Vigyan Kendra has been plane to evaluate and popularize the HY's of Wheat, Barley, Mustard and Lentil with recommended production technology among farming communities through crop cafeteria. Seven varieties of wheat i.e. PBW-550, RR-21, UP-2003, HD-2733, PBW-154, PBW-373 and WH-711, four varieties of Barley viz. NDB-1173, NDB-1, NDB-2 and NDB-3, seven varieties of Mustard viz. Kranti, NDR-8501, NDYS-2018, NDYS-7, NDRE-4, NDYS-2 and NDYS-8 and four varieties of lentil NDL-1, DPL-62, IPL-404 and KLS-218 were sown in crop Cafeteria at the instructional farm of the K.V.K. Balrampur during rabi season 2013-14. Data were recorded on yield characters revealed that the maximum yield of wheat was obtained from HD2737 (48.50 q/ha) followed by PBW 550 (77.25 q/ha), PBW-154 (45.78 q/ha) WH-711 (44.16 q/ha), U.P. 2003 (43.35 q/ha), PBW 373 (42.50 q/ha) and RR-21 (40.25 q/ha). Result indicated among four varieties of Barley higher yield was recorded in cultivar, NDB-1173 and minimum yield was recorded in cultivar NDB-3. Similarly maximum yield were recorded in mustard variety NDR 8501 (18.25 q/ha) and Lentil cultivar NDL-1(19.75q/ha). The minimum average yield gap and maximum average percentage increase yield was found in mustard crop which was 8.40 q/ha and 51.09 % followed by Lentil, Barley and Wheat. However the demonstration of high yielding varieties of different crops with latest production technology in crop Cafeteria were found very effective in changing attitude, skills and knowledge of farming communities of district.*

**Keywords:** Crop Cafeteria, Yield Gap, Productivity, Technology, Longitude

No use of improve varieties, improper seed rate and method of sowing, use of untreated seed imbalanced use of fertilizers, plant protection measures and weed management practices is the many reasons for low productivity of crop in agriculture. There are several methods like training, front line demonstration, on farm trials, crop cafeteria, Kisan Mela & Kisan Gosthi, Radio & TV talk, use of print media in agriculture for transfer of technology. Cafeteria plays an important role of facilitator in the process of technology transfer among farming communities. It provides practical experiences based on the principle of 'seeing believes' and face to face views along with KVK's technocrats for disseminating technical knowhow to the farmers, rural youths and extension functionaries. The average productivity of different crop in district Balrampur is very less because lack of knowledge of improved package and practices.

Keeping the above point in view, Krishi Vigyan Kendra Balrampur has been planned to evaluate and popularize the high yielding varieties of Wheat, Barley, Mustard and lentil with recommended production technology among farming communities through crop cafeteria.

### MATERIALS AND METHODS

District Balrampur falls under North Eastern plain zone of Uttar Pradesh. The district lies between 27.42 North latitude and 82.32 East longitudes. The district is characterized by warm and humid climate from June to September while dry and cool weather from October to March, April to June is characterized by hot winds. The mean maximum and minimum temperature was 44.3°C and 4.5°C respectively. The average annual rainfall received in the district is 1100 mm during study period. The soils of experimental field were clay loam in texture with 7.4 pH. The available nitrogen and phosphorus was found in low & potassium in medium. However, the soil was also deficient in zinc and iron.

Present study was carried out at the instructional form of Krishi Vigyan Kendra Balrampur U.P. during 2013-14 with seven varieties of Wheat i.e. PBW-550, RR-21, UP-2003, HD-2733, PBW-154, PBW-373 and WH-711, four varieties of Lentil viz, NDL-1, DPL-62, TPL 406, and KLS-218, four varieties of barley NDB-1173, NDB-1, NDB-2 and NDB-3 and seven varieties of Mustard viz. NDR-8501,

Kranti, NDYS-2018, NDYS-7, NDRE-4, NDYS-2 and NDYS-8. The necessary step for selection of site & layout etc were followed as suggested by Singh *et al.* (2013). The traditional practices were maintained in case of local checks. The data of output viz. average yield of cafeteria plot as well as local plots of districts provided by state agriculture department were collected and finally average yield and yield gap of different crops varieties were worked out. Percent yield increase was also worked out in comparison to average productivity of district Balrampur as following formulae:

$$\text{Percentage increase in yield in different crops} = \frac{\text{Av. yield of different varieties of different crops in cafeteria plots.} - \text{Average productivity of different crops of district during the study period}}{\text{Av. yield of different varieties of different crops in cafeteria plots.}} \times 100$$

$$\text{Yield gap} = \text{Av. yield of different varieties of various crops in cafeteria plots} - \text{Average productivity of different crops of district during the study period}$$

## RESULTS AND DISCUSSION

The result presented in Table-1 revealed that the maximum yield of wheat was obtained from HD 2733 (48.50q/ha) followed by PBW 550 (47.25 q/ha), PBW-154 (45.78 q/ha), WH-711 (44.16q/ha), UP-2003 (43.35 q/ha), PBW-373 (42.50 q/ha) and RR-21 (40.25 q/ha), respectively. In case of barley the maximum yield was found in NDB 1173 and minimum yield was recorded in cultivar NDB-3. Similarly, maximum yields were recorded in mustard variety NDR-8501 (18.25 q/ha) and Lentil cultivar NDL-1 (19.75 q/ha), the result in confirming with the findings of Singh *et al.* (2013) The total average yield of different varieties of various crops was ranged between 16.44 q/ha - 44.54 q/ha which was maximum in wheat and minimum in mustard crop.

The result clearly indicated in table-2 that minimum average yield gap and maximum average increasing yield percentage was found in mustard crop which was 8.40 q/ha and 51.09% followed by Lentil, Barley and wheat. The table also indicated that where average yield gap is more average increase yield in percentage is less and vice-versa.

The result of average yield and average percentage increase yield, which was emphasizes the

need to disseminate the improved technologies by educating the farmers of district through crop cafeteria as well as various extension strategies. Similar findings reported by Ahmad *et al.* (2013), Diwedi *et al.* (2013) and Katare *et al.* (2011).

**Table-1: Average production (q/ha) of different varieties of crops cafeteria plots**

S. No.	Name of crops	Name of varieties	Avg. yield (q/ha)	Total avg. yield of different varieties (q/ha)
1	Wheat	HD-2733	48.50	44.54
		PBW-550	47.25	
		PBW-154	45.78	
		WH 711	44.16	
		UP 2003	43.35	
		PBW 373	42.50	
2	Barley	RR 21	40.25	37.69
		NDB 1173	39.35	
		NDB - 1	38.83	
		NDB - 2	36.84	
3	Mustard	NDB - 3	35.75	16.44
		NDR - 8501	18.25	
		Kranti	18.15	
		NDYS - 8	16.75	
		NDYS - 2	16.25	
		NDYS-2018	15.50	
		NDRE-4	15.36	
NDYS-7	14.85			
4	Lentil	NDL - 1	19.75	16.56
		DPL - 62	16.52	
		IPL - 406	14.35	
		KLS - 218	15.65	

**Table-2: Average yield gap & percentage increase of different varieties of various crops**

S. No.	Name of crops	Av. yield gap (g/ha)	Avg. increase (%)
1	Wheat	16.15	36.25
2	Barley	12.14	32.89
3	Mustard	08.40	51.09
4	Lentil	08.68	52.41

## CONCLUSION

On the basis of findings of the present study, it can be concluded that demonstration of high yielding varieties of different crops with latest production technologies in crop cafeteria were found very effective in changing attitude, skills and knowledge of farming communities. Therefore, extension agencies in the district need to provide proper technical support to



the farmers through different educational and extension methods for better crop production in the district.

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