

**RESEARCH ARTICLE :**

# Knowledge level of beneficiary farmers of ATMQIC regarding cultivation practices of *Rabi* crop demonstrations in Jaipur district of Rajasthan

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**SUMMARY :** Agriculture Technology management Quality Improvement Center (ATMQIC) project of Rastriya Krishi Vikas Yojana was started in Shri Karan Narendra Agriculture University, Jobner to provide a 'single window' system for farmers. Keeping in view the facts the study was conducted in three selected villages of Jaipur district of Rajasthan and 120 respondent farmers were selected from these three selected villages through proportional allocation to the size of the population. The knowledge of ATMQIC beneficiary farmers was measured and found that majority of respondents (74) of ATMQIC (61.67 %) belonged to middle level of knowledge categories, followed by high (15.83 %) and low (22.50%) knowledge categories of respondents of ATMQIC about rabi crop demonstrations. The *Rabi* crop wise findings of the study indicated that majority of respondents of ATMQIC were found to have adequate knowledge regarding cultivation techniques of Barley crop followed by wheat, mustard and fenugreek crops.

**KEY WORDS:**

ATMQIC,  
Knowledge,  
Agriculture, Schemes,  
Crop demonstrations,  
Farmers, Technology

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## **BACKGROUND AND OBJECTIVES**

Agriculture is the backbone of Indian economy. Agricultural growth plays an important role in achieving certain national goals, such as reducing rural poverty, providing food and nutritional security, supplying raw materials to major industries where as central and state govt. were started a number of projects to increase agriculture production to mitigate demand of growing population. In this sector Sri Karan Narendra Agriculture

University (SKNAU) Jobner started various projects specially for infrastructure development and transfer of technology. The Agriculture Technology Management and Quality Improvement Centre (ATMQIC) project sanctioned under Rashtriya Krishi Vikas Yojana (RKVY) was one of them introduced in selected areas of SKNAU, Jobner to transfer the Agriculture technology. In addition to supporting individual farmer, farmers' groups, public and private agencies in supplying quality materials techniques/

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technologies/ knowledge etc. the information services and supplies under ATMQIC project were included *i.e.* agriculture technology of *Rabi* crops demonstration. Because crop demonstration is an important tool to transfer advance agronomical practices and innovative technology to the farmers. Under ATMQIC project *Rabi* crop demonstrations of barley, wheat, mustard and fenugeek were given to farmers to enhance their knowledge about cultivation technologies of *Rabi* crops.

## RESOURCES AND METHODS

The district Jaipur of Rajasthan was selected purposely because the ATMQIC project activities were implemented in three selected villages *viz.*, Dhani Boraj and Khejra was of Panchayat Samiti Sambhar Lake and village I Dan ka Bas of Dudu. A list of all the respondents/ farmers of three selected villages who have been benefited under ATMQIC was prepared with the help of project staff and 120 beneficiaries were selected randomly from these three selected villages through proportional allocation to the size of the population. An interview schedule was developed in accordance with the objective of the study based on expert opinion and literature reviewed which was pre-tested and applied in the field. The data given technology about demonstrations of crop barley, wheat, mustard and fenugeek were collected with the help of interview schedule. The collected data were classified, tabulated, analysed and interpreted in order to make the findings meaningful. The statistical measures such as percentage, mean, mean percent score, standard deviation etc. were used to reach at conclusion.

## OBSERVATIONS AND ANALYSIS

Under this section it was tried to find out the level of knowledge of beneficiary farmers about *Rabi* crop demonstrations conducted under ATMQIC project. The knowledge of *Rabi* crops demonstrations by the beneficiaries of ATMQIC was divided into three categories *viz.*, low, medium and high based on the mean and standard deviation. The results are presented in Table 1 and diagrammatically in Fig. 1.

### Knowledge level of beneficiary farmers about *Rabi* crop demonstrations of ATMQIC project:

The data presented in Table 1 reveal that majority

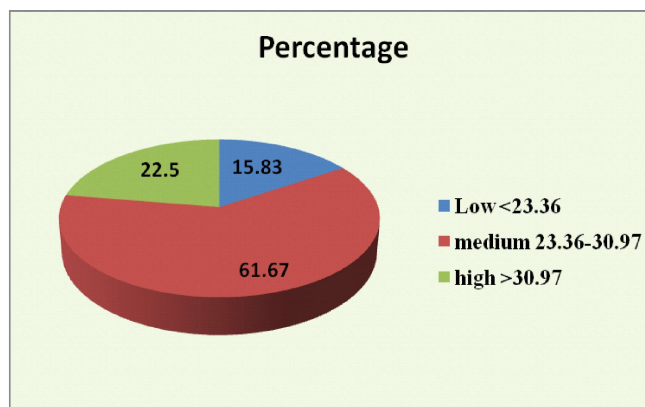


Fig. 1: Distribution of beneficiary farmers regarding knowledge level of *Rabi* crop demonstrations of ATMQIC

Table 1: Distribution of beneficiary farmers regarding knowledge level of *Rabi* crop demonstrations of ATMQIC Project (n=120)

Sr. No.	Knowledge categories	Frequency	Percentage
1.	Low (<23.36 scores)	19	15.83
2.	Medium (between 23.36-30.97 scores)	74	61.67
3.	High (>30.97 scores)	27	22.50
Total		120	100.00
Mean = 29.73, SD = 3.13			

of beneficiary farmers of ATMQIC *i.e.* 74 (61.67%) belonged to category of middle knowledge level followed by high (22.50%) and low (15.83%) category of knowledge level related to *Rabi* crop demonstrations of ATMQIC project. Therefore, it might be concluded from the findings that majority of the beneficiaries of ATMQIC were found to have medium knowledge level about *Rabi* crops demonstrations. Similar findings were also reported by Choudhary and Sharma (2012) and Dhayal and Bairathi (2017).

### Crops wise knowledge of beneficiary farmers about *Rabi* crop demonstrations of ATMQIC project:

Crop wise knowledge of ATMQIC beneficiary farmers was also worked out to get a clear picture of knowledge possessed by them. For this, mean per cent scores for each crops was calculated and ranks were awarded accordingly. The results of the same have been presented in Table 2 and diagrammatically in Fig. 2. Regarding crop wise, it was found that first rank was given to the knowledge level of Barley crop production technology (89.79 MPS) followed by knowledge level of

Wheat (85.21 MPS), mustard (84.69 MPS) and fenugreek (79.90 MPS) production technology and second, third, fourth ranks were awarded, respectively.

**Table 2 : Crop wise knowledge of beneficiaries about *Rabi* crops demonstrations of ATMQIC project (n=120)**

Sr. No.	Name of crops	MPS	Rank
1.	Barley	89.79	I
2.	Wheat	85.21	II
3.	Mustard	84.69	III
4.	Fenugreek	79.90	IV

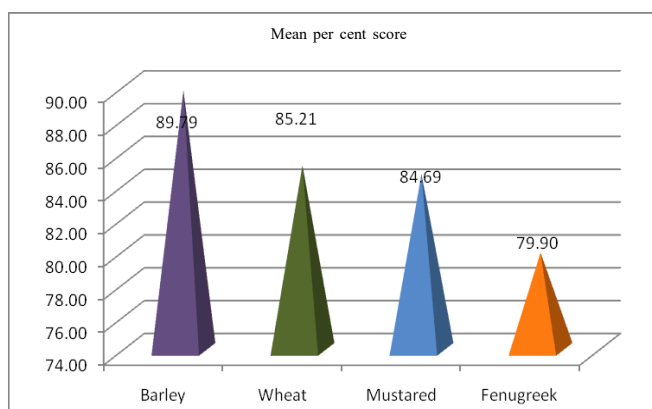


Fig. 2: Crop wise knowledge of beneficiaries about *Rabi* crops demonstrations of ATMQIC

**Knowledge of beneficiaries about recommended cultivation practices of *Rabi* crops demonstrations of ATMQIC project :**

The data given in Table 3 reveal that *Rabi* crop demonstration beneficiary respondents were given first rank to knowledge of appropriate time for crop sowing (96.67 MPS) followed by knowledge of recommended seed rate of crop (93.33 MPS), appropriate time of harvesting (91.67MPS), common insects of crops (90.00 MPS), ploughings are needed to prepare the field before sowing (89.17 MPS), expected yield of the crop (88.33 MPS), common diseases of the crop (87.50 MPS) and recommended variety of the crop (83.33 MPS) and second, third, fourth fifth, sixth, seventh, eighth ranks were awarded, respectively.

It might be concluded from the findings that majority of respondents were having knowledge level about barley cultivation practices which got the top rank and the second highest rank was assigned to knowledge about wheat crop. This might be due to the facts that barley is

**Table 3 : Knowledge of beneficiaries about recommended cultivation practices of *Rabi* crops demonstrations of ATMQIC project (n=120)**

Sr. No.	Practices	MPS	Rank
1.	Appropriate time for crop sowing	96.67	I
2.	Recommended seed rate of crop	93.33	II
3.	Appropriate time of harvesting	91.67	III
4.	Common insects of crops	90.00	IV
5.	Ploughings are needed to prepare the field before sowing	89.17	V
6.	Expected yield of the crop	88.33	VI
7.	Common diseases of the crop	87.50	VII
8.	Recommended variety of the crop	83.33	VIII

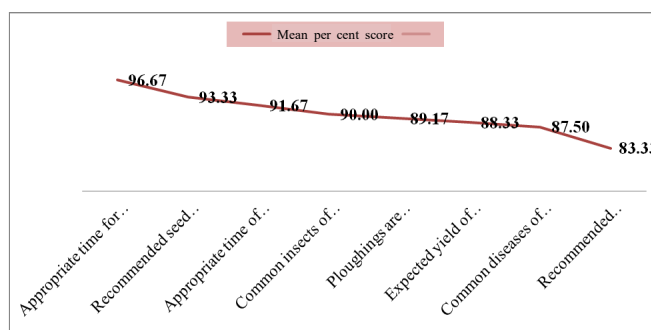


Fig. 3: Knowledge of beneficiaries about recommended cultivation practices of *Rabi* crops demonstrations of ATMQIC project

shortgrowing season crop and has good drought tolerant crop. Barley was mainly used as livestock feed and currently it is one of the grains used daily human consumption (Barley Malt) are the another reason to grow barley in these areas. Barley can easily be grown in saline area which gives maximum production in comparison to other *Rabi* crops and also fulfill basic requirement of farmers. According to cultivation practices it was concluded that the highest knowledge was found about “Appropriate time for crop sowing” and obtained the highest rank followed by “Recommended seed rate of crop”, “Appropriate time of harvesting” while the lowest knowledge was found about “Common insects of crops” and “Recommended variety of the crops” these findings were observed because *Rabi* crops production technologies generally involves the knowledge about integrated application of new technology about ploughings needed to prepare the field before sowing, recommended variety of the crop, appropriate time for crop sowing,

recommended seed rate of crop, common insects of crops, common diseases of the crop, appropriate time of harvesting, expected yield of crop etc.

These findings are in support with findings of Kumar and Kumawat (2019) and Choudhary *et al.* (2019).

### Conclusion:

It might be concluded from the so obtained results regarding knowledge level of beneficiaries about Rabi Crop demonstrations of ATMQIC project that the barley crop growers had more knowledge about major practices of barley cultivation than other rabi crops due suitability of crops with rainfed conditions and fulfilling of farmers basic requirement of feed and fodder. Other reasons to grow barley crop are this due to suitability of environment condition at growing and maturity stage in this area. This is one of the most important cereal grain crop after rice, wheat and maize. In these selected areas, this crop is cultivated as a winter crop in tropical regions and barley also play major role in industrial consumption. barley improves immunity system and beneficial in anemia patients that is another reason to grow barley in selected areas.

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### REFERENCES

**Chauhan Nikulsinh, M.** (2012). Knowledge level of farmers regarding package of practices for gram crop. *J. Krishi Vigyan*

, **1** (1): 46-48.

**Choudhary, Mahesh,** Asiwal, B. L. and Dular, R. K. (2019). Knowledge level of farmers about improved production technology of onion crops in Sikar district of Rajasthan. *J. Krishi Vigyan*, **8** (1): 191-196.

**Choudhary, P.C.** and Sharma, R. (2012). Knowledge of chilli growers about various interventions of chilli cultivation under institution village Linkage programme. *Ind. Res. J. Ext. Edu.*, **12** (2): 25-28.

**Devi Ganga, M.,** Kumar, Ch. Anil and Srinivas Kumar, D. (2017). Impact analysis of trainings and front line demonstrations in black gram (*Vigna mungo*) cultivation. *J. Krishi Vigyan*, **6** (1): 97 - 100.

**Dhayal, B.L.** and Bairathi, R. (2017). Knowledge level of farmers towards Pradhan Mantri Crop Insurance Scheme in Udaipur district of Rajasthan. *Ind. J. Ext. Edu. & R.D.*, **18** (1): 53-57.

**Jat, J. R.,** Singh, S., Lal, H. and Choudhary, L.R. (2011). Knowledge level of farmers about improved tomato production technology. *Rajasthan J. Ext. Edu.*, **19**: 139-143.

**Kumar, Mahendra** and Kumawat, S. R. (2019). Knowledge level of farmers about chickpea production technology in Nagaur district of Rajasthan. *J. Krishi Vigyan*, **8** (1): 187-190.

**Kumar, P. V.,** Khan, M. A. and Sharma, M. L. (2016). The Knowledge of tribal farmers about the recommended black gram cultivation practices and its determinants. *Int. J. Agric. Sci.*, **8** (9): 1107-1109.

**Shakya, M. S.,** Patel, M. M. and Singh, V. B. (2008). Knowledge level of chickpea growers about chickpea production technology. *Ind. J. Ext. Edu.*, **8** (2&3): 65-68.

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