Impact of ATMA on Knowledge and Attitude towards sugarcane production technology in Sitapur district of Uttar Pradesh.

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Abstract: *Sugarcane is the most important cash crop. India rank first both in respect of area and total production among the sugarcane growing countries of the world. Even if, there is enormous opportunity of making further progress in relation to increase the sugarcane production by way of adoption of modern technology in sugarcane production. Hence, this study was undertaken to analyze the Knowledge and Attitude of farmers towards sugarcane production technologies in Ealliya block of Sitapur district (Uttar Pradesh) and found that that majority of the beneficiaries were medium level of knowledge whereas non beneficiaries were low level of knowledge but in case of Attitude beneficiaries were categorized high level of attitude and majority of the non beneficiaries were categorized comparatively low level of attitude.*

Key Words: *Knowledge, Attitude, Sugarcane, Technology*

1. INTRODUCTION:

Sugarcane (Sacchram officinarum) species is widely cultivated in India because of high sucrose content. Sugarcane is a tall perennial plant growing erect even up to 5 or 6 meters and produces multiple stems. The plant is composed of four principal parts, root system, stalk, leaves and inflorescence. The main product of sugarcane is sucrose, which accumulates in the stalk internodes. Sucrose, extracted and purified in specialized mill factories, is used as raw material in human food industries or is fermented to produce ethanol. Ethanol is produced on a large scale by the Brazilian sugarcane industry. Sugar is the major produce of sugarcane. The domestic demand of sugar is rotating around 22-23 million tonnes annually, where as the production of sugar in India during last 5 years is rotating around 24.3 to 26.3 Million ton. Maharashtra is the largest producer of sugar contributes about 34% of sugar in the country followed by Uttar Pradesh. Broadly there are two distinct agro-climatic regions of sugarcane cultivation in India, viz., tropical and subtropical. However, five agro-climatic zones have been identified mainly for the purpose of varietal development. They are (i) North Western Zone (ii) North Central Zone (iii) North Eastern Zone (iv) Peninsular Zone (v) Coastal Zone. Tropical region Shared about 45% and 55% of the total sugarcane area and production in the country, respectively along with the average productivity of 77 t/ha (2011-12). Sub-tropical region accounted for about 55% and 45% of total area and production of sugarcane with an average productivity about 63 t/ha (2011-12)

2. LITERATURE REVIEW:

Arya *et al.* (2012) found that age had shown negative and significant correlation with knowledge about communication material and education was positively and significantly associated with knowledge about communication material of change agent.

Borban (2007) reported in their study of training needs as perceived by the farmers of Krishi Vigyan Kendra Betul district of Madhya Pradesh that the majority of the farmers had medium attitude towards improved agricultural technology category.

Hanumanaikar *et al.* (2009) reported that majority (60.83 per cent) of the respondents had medium level of knowledge followed by 25.85 per cent and 13.33 per cent of the respondents had high and low level knowledge respectively.

Patel (2013) found that in case of knowledge level of respondents about soybean cultivation practices recommended by ATMA project, that 46.25 per cent of respondents had medium level of knowledge about cultivation practices of the soybean to the soybean demonstration beneficiaries under ATMA followed by low level 33.75 per cent and high level 20.00 per cent respectively.

Raghavendra (2010) reported that about 40 per cent of participant farmers had medium level of socio-economic status, followed by low (36.67%) and high (23.33%). But, 60.00 percent of non-participant farmers had low level of socio-economic status, followed by medium (28.33%) and high (11.67), respectively.

Singh *et al.* (2014) revealed that majority of the respondents (71.34 per cent) were found to have fair and good knowledge of improved wheat production technology. The average knowledge of such farmers was 39.67 per cent (fair). About 48.33 per cent of farmers were found to have high level of knowledge (good and very good).

Mandavkar *et al.* (2013) found that majority of the respondents (69.20 per cent) constituted the medium knowledge index. Low and High knowledge index was constituted by 16.80 per cent and 14.00 per cent respondents, respectively.

3. RESEARCH METHODOLOGY:

The present study conducted in Sitapur District of U.P. which was purposively selected because majority of district area are covered by the project. The district comprises 19 blocks out of which Ealliya block is selected purposively because the maximum area of the block covered by ATMA project.The sample are comprised of 110 respondents from 10 villages which were selected randomly.Ex-post facto research design is used in the study.The pre structured interviews used to collect the data related to knowledge and attitude of sugarcane production.The information collected was scored , tabulated, computed and analyzed to have necessary interpretation.

4. RESULTS & DISCUSSION:

The results obtained from present study as relevant discussion have been presented below

Socio-economic status of the beneficiaries and non beneficiaries.

		Beneficiaries		**Non beneficiaries**	
Sr.No.	SOCIO-ECONOMIC STATUS	Frequency	Percentage	Frequency	Percentage
1	Low (11-16)	11	20.00	24	43.64
2	Medium (17-22)	29	52.73	21	38.18
3	High (23-28)	15	27.27	10	18.18
4	Total	55	100.00	55	100.00

The socio-economic status of the beneficiaries and non-beneficiaries are given in Table. 1.9 The data pertain that the majority of the beneficiaries 52.73 per cent were found to have medium socio-economic status followed by 27.27 per cent of the beneficiaries were categories high socio- economic status and only 20.00 per cent beneficiaries found to have low socio-economic status and only 20.00 per cent beneficiaries found to have low socio-economic status. Whereas43.64 per cent of the non-beneficiaries were found to be low socio-economic status, followed by 38.18 per cent non-beneficiaries were categorized medium socio-economic status and 18.18 per cent of the non-beneficiaries were found to have high socio economic status .Similar finding is also reported by **Raghavendra(2010)**

Distribution of beneficiaries and non beneficiaries knowledge towards sugarcane production technology by ATMA programme.

		Beneficiaries		**Non beneficiaries**		
Sr. No.	Knowledge	Frequency	Percentage	Knowledge	Frequency	Percentage
1	Low(23-33)	09	16.36	Low(23-33)	26	47.27
2	Medium(34-44)	29	52.73	Medium(34-44)	21	38.18
3	High(44-55)	17	30.91	High(44-55)	08	14.55
4	Total	55	100.00	Total	55	100.00

The data in table shows that majority of the beneficiaries (52.73%) were medium level of knowledge followed by (30.91%) beneficiaries were high level of knowledge and (16.36%) were low level of knowledge respectively. Whereas (47.27%) non beneficiaries were low level of knowledge followed by (38.18%) non beneficiaries were medium level of knowledge and (14.55%) were high level of knowledge respectively. Similar finding is also reported by **Singh *et al* (2014)**

Distribution of beneficiaries and non beneficiaries according to their overall level of attitude.

		Beneficiaries		**Non beneficiaries**		
Sr. No.	ATTITUDE	Frequency	Percentage	ATTITUDE	Frequency	Percentage
1	Low(18-21)	08	14.55	Low(13-17)	29	52.73
2	Medium(22-25)	21	38.18	Medium(18-22)	17	30.91
3	High(26-29)	26	47.27	High(23-27)	09	16.36
4	Total	55	100.00	Total	55	100.00

The data in table shows that (47.27%) beneficiaries were categorized in the high level of attitude followed by (38.18%) beneficiaries were categorized in the medium level of attitude and (14.55%) were categorized in the low

level of attitude respectively. Whereas majority of the non beneficiaries (52.73%) were categorized in the low level of attitude followed by (30.91%) non beneficiaries were categorized in the medium level of attitude and (16.36%) were categorized in the high level of attitude respectively. Similar finding is also reported by **Borban (2007)**

Relationship between socio-economic characteristics and knowledge level ofsugarcane production technologies of beneficiaries and non-beneficiaries.

Sl.No.	Characteristics	"r" value(beneficiaries)	"r" value(non-beneficiaries)
1.	Age	-0.199*	-0.183*
2.	Education	0.195*	0.165*
3.	Land holding	0.022NS	0.017NS
4.	Annual income	0.015NS	0.008NS
5.	Mass media	0.193*	0.157*
6.	Innovativeness	0.264*	0.162*

* = Significant at p = 0.005 **NS Non significant**

It is clearly seen from the table that education ,mass media and innovativeness were found positively and sigtnificantly correlated with the knowledge of respondents whereas age ,land holding and annual income were found non significantly correlated with knowledge of sugarcane production tachnology. Similar finding was also reported by **Arya *et al* 2012**.

5. CONCLUSION:

It is concluded that the majority of the beneficiaries have medium to high level Knowledge and high to medium level attitude towards sugarcane production practices respectively but non beneficiaries have comparatively low to medium level knowledge and attitude of sugarcane production practices. Education ,mass media and innovativeness were found positively and sigtnificantly correlated with the knowledge of respondents whereas age ,land holding and annual income were found non significantly correlated with knowledge of sugarcane production tachnology

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