



Research Article

KNOWLEDGE AND ADOPTION LEVELS OF TAPIOCA: AN ANALYSIS OF TECHNOLOGY WISE DIFFERENCES

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Abstract: Cassava, popularly known as tapioca, is grown in India for more than a century; and a staple food, consumed by 500 million people world wide. In South India tapioca is widely grown in Kerala and Tamil Nadu. To achieve the growing demands of increasing population in our country by 2000 AD, the tapioca production will have to be raised. This could be possible by adopting all the recommended cultivation practices for tapioca. A study was conducted with a sample of 120 tapioca growers at Salem district of Tamil Nadu to study the technology wise differences between the knowledge and adoption levels of tapioca growers. The analysis namely 'Z' test was used in this study. The study revealed that the following technologies viz., 'right time of harvesting', 'intercropping' and 'depth of planting' exhibited significant difference between knowledge and adoption. For all other practices studied there was no significant difference between knowledge and adoption. Further the study indicated that the tapioca farmers who know the recommendation for the 'right time of harvest', 'intercropping' and 'depth of planting' did not adopt these practices in their farm due to various constraints.

Keywords: Knowledge, Adoption, Tapioca growers, Recommended Technologies

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Introduction

In rural areas of India, when food grain supplies are not ensured it is essential to concentrate all efforts to foster new management to promote production of foods which make up a large proportion of their diet. In such a situation at least in few states tapioca emerges as a significant crop with multifaceted uses for rural house-hold food security. In India, tapioca is cultivated in an area of 0.24 million hectares producing 6.7 million tonnes with a productivity of 27.92 t/ha. [1]. In South India tapioca is widely grown in Kerala and Tamil Nadu. At present, the sago and starch industries are meeting about 80 percent demand of the tapioca food products of the country and has generated employment for over 5 lakh persons in rural areas [2]. In fact, this industry is the backbone of the rural economy in Tamil Nadu. Besides that, it is a staple food for majority of the population in southern states like Kerala and parts of Tamil Nadu. To achieve the growing demands of increasing population in our country by 2000 AD, the tapioca production will have to be raised. This could be possible by adopting all the recommended cultivation practices for tapioca. This paper was taken up to study the technology wise differences between the knowledge and adoption levels of tapioca growers in Salem district of Tamil Nadu.

Methodology

The study was conducted in Salem district of Tamil Nadu State. Attur taluk was purposively selected since it has the largest area under tapioca cultivation in Salem district. A total number of 120 tapioca farmers (40 each from marginal, small and big farmer categories) were selected based on random sampling method. Well-structured and pretested interview schedule was used to collect the data.

Findings and Discussion

Those who possess knowledge about anything are expected to have changed

behaviour. They are expected to adopt the same if they have developed a favourable attitude. Rogers M. Everetts, (1983) [3] defined adoption as the decision to make full use of an innovation as the best course of action available. The data collected for knowledge level and adoption level for the studied technologies were put to statistical analysis to know whether there existed any difference between the knowledge and adoption levels. The results are presented in [Table-1]. [Table-1] revealed that adoption level was lower than knowledge level for all the practices. Hence it was decided to know whether there existed any significant difference between knowledge and adoption for all the technologies studied. As it could be seen from [Table-1] the 'z' value was significant for right time of harvesting, intercropping and depth of planting, indicating that these three technologies exhibit difference between knowledge and adoption. For all other practices studied there was no significant difference between knowledge and adoption. The technologies of right time of harvesting and intercropping had significant difference at one percent level of probability. Depth of planting had a significant difference at 5 percent level of probability. The results, thus, indicated that farmers who know the recommendation for the right time of harvest, intercropping and depth of planting did not adopt these practices in their farm due to some constraints. As it is reported elsewhere uncertainty and high fluctuation in market price might have made the farmers as adaptors of right time of harvesting. The wrong perception by farmers that intercrop would create an unhealthy competition with main crop and result in decrease in yield of main crop would have been the possible reason for the farmers not adopting the recommended intercropping. While depth of planting recommendation is 4-6 cm. Most of the farmers planted the setts at a depth of 3 cm only. Farmers expressed that they experience difficulty at the time of harvest in pulling out tubers if the recommended depth of planting was adopted. This might be the reason for shallow depth of planting.

Table-1 Technology wise differences between the knowledge and adoption levels

SN	Particulars	Knowledge n=120		Adoption n=120		'Z' value
		Number	Percent	Number	Percent	
I	Sett selection	89	74.17	84	70.00	1.3980
II	Sett treatment					
1	Fungicides	48	40.00	44	36.67	0.1130
2	Biofertilizer	25	20.83	22	18.33	-0.1530
III	Planting					
1	Planting method	86	71.67	78	65.00	0.7500
2	Depth of planting	108	90.00	88	73.33	2.8670*
3	Sett rate	100	83.33	95	79.17	0.5610
4	Spacing	98	81.67	93	77.50	0.5360
IV	Irrigation	93	77.50	81	67.50	1.3090
V	Manures and fertilizers					
1	Quantity of FYM	109	90.83	102	85.00	1.0910
2	Basal	41	34.17	39	32.50	-0.0789
3	Top dressing	90	75.00	88	73.33	-0.0833
4	Neem blended urea	30	25.00	26	21.67	-0.0229
VI	Micronutrient application					
1	Management for iron deficiency	47	39.17	43	35.83	0.1090
VII	Intercropping	112	93.33	78	65.00	4.7770**
VIII	Pest management					
1	White fly	44	36.67	40	33.33	0.0994
2	Scale	28	23.33	21	17.50	0.1420
3	Red spider mite	16	13.33	12	10.00	-0.3200
IX	Disease management					
1	Mosaic	58	48.33	54	45.00	0.1630
2	Tuber rot	23	19.17	18	15.00	-0.0653
3	Phoma disease	43	35.83	39	32.50	0.0844
4	Cercospora leaf spot	18	15.00	11	9.17	-0.1170
X	Weed management					
1	Herbicide application	80	66.67	70	58.33	0.8850
XI	Harvesting					
1	Right time of harvesting	112	93.33	90	75.00	3.4440**

Conclusion

It could be concluded from the findings that tapioca farmers adopt the technologies that are recommended and known to them unless they experience some constraint. The study indicated that 'right time of harvesting', 'intercropping' and 'depth of planting' exhibited significant difference between knowledge and adoption level of tapioca cultivation.

Application of research: The present study was confined only to Salem district of Tamil Nadu due to limitation of time and cost of research. Hence, findings of this study could not be generalized to other districts.

Research Category: Agriculture Extension

Abbreviations: Nil

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Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.

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