A Study on the Knowledge and Adoption Level of Pineapple Growers about Improved Management Practices in Dimapur District of Nagaland

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Abstract

The present study entitled ''a study on management practices of pineapple growers in Dimapur district of Nagaland". The study was conducted in Medziphema block of Dimapur District of Nagaland. A total of 120 respondents from 6 villages were randomly selected and data were collected and analysed by using appropriate statistical tools. It was found that majority (75.83%) of the respondents belonged to the old age group, (above 51 years) , with majority (67.50%) of the respondents having educational attainment up to high-school, majority (52.50%) of the respondents belonged to high farming experience category, majority (65%) of the respondents belonged to high annual income (more than 3 Lakh), 45 per cent of the respondents had farming as their main occupation and only source of income, majority (78.33%), majority(72.50%) of the respondents had media exposure to both mobile and television, majority (56.67%) of the respondents had contact with Extension workers and agents sometimes, most (44.17) of the respondents belonged to medium level of innovativeness, majority (50%) of the respondents belonged to the medium level of overall-knowledge category and most (48.33%) of the respondents had medium level of adoption category. The correlation coefficient 'r' between the independent factors and adoption level of respondents was found to be positive in terms of age, education, land holding, farming experience, type of house, family size, media exposure, extension contact, innovativeness and level of knowledge. The 'r' value for occupation, annual income and is non-significant

Keywords: knowledge, adoption, pineapple growers, improved management practices,

Introduction

Pineapple (Ananas comosus) is one of the important fruit crops of the state of Nagaland occupying a total area of 9917 ha with a production of 147384 Mt, with the average productivity of 14.86 Mt/ha. Maximum area is covered under Dimapur district i.e. 2795 ha with average productivity of 11.59 Mt/ha contributing 4.1% of the total pineapple production in India. The state produces the world's finest quality fruits due to favourable agro-climatic conditions. The fruits weighing nearly1.2-1.7 kg with the TSS of 14-180 brix and acidity 0.9 to1.2% and total sugar 0.7 to 1.75 % depending on the stage of maturity and season. In the district Pineapples are grown in hillocks with a slope of 30-40% as beyond that soil erosion is very high during rainy season and experienced moisture scarcity during winter.

Farmers in rural Nagaland have shifted from paddy cultivation, an age-old practice, to pineapple production. In the present situation, pineapple has become one of the most important commercial crops in the State, drawing rural populations to its cultivation, thus providing a huge livelihood and employment opportunity.

The present study was an effort to bring out a clear picture of the existing situation with respective management orientation and management practices and constraints of pineapple growers. Therefore, the results of the present study was of utmost importance to planners, policy makers and extension workers to take stock of the situation and to design and popularize such a balanced policy that was to be in line with the existing needs of the pineapple growers.

Objectives of The Study

The main objective of this study is to find the knowledge and adoption level of pineapple growers about improved   management practices in Dimapur district of Nagaland. The specific objectives are:

i.   To find out the level of knowledge and adoption of pineapple growers about improved management practices of pineapple.
ii. Relationship between profile of pineapple growers and their adoption level of recommended practice of pineapple**.**

Research Methodology

For the present study both primary and secondary data were collected.

Selection of District: The present study was purposefully conducted in Dimapur district of Nagaland since maximum pineapple cultivation area in Nagaland fall under Dimapur district with 2795 ha with average productivity of 11.59 Mt/ha..

Selection of blocks: The present study was conducted in Medziphema block, a sub-division district (block no.24) of Dimapur district. Medziphema is known for its pineapples. There are several villages around this town that cultivate pineapples at a large scale, some are even called as pineapple villages for their mass cultivation.

Selection of villages: There are 21 villages in Medziphema block out of which 6 villages (28% of the total villages) most popular for pineapple cultivation were selected for the present study.

Selection of respondents: All the farmers of 6 villages from the district, who had successfully harvested at least two crops of pineapple and among them twenty respondents from each of 6 villages were randomly selected, thus total sample constituted 120 respondents.

Data Analysis

After collection of the data from the respondents, they are being analyzed accordingly. Appropriate Statistical tools have been used for analysis of data.

TABLE1: Profile of pineapple growers.

Sl.no	Variables	Intervals	Frequency	Percentage
1	Age	30-40(young)	3	2.50
		41-50(middle)	26	21.67
		51 and above (old)	91	75.83
2.	Education	Illiterate	4	3.33
		Literate	4	3.33
		Upto primary school	10	8.34
		High school	81	67.50
		Graduation	21	17.50
3.	Occupation	Farming	54	45.00
		Farming+labour	13	10.83
		Farming +business	53	44.17
4.	Farming experience	Less than 10 years	63	52.50
		10-15 years	52	43.33
		More than 15 years	5	4.17
5.	Annual income	More than 1 lakh	10	8.33
		More than 2 lakh	32	26.67
		More than 3 lakh	78	65.00
6	Size of landholding	Less than 1ha	41	34.17
		1-2 ha	45	37.50
		More than 3 ha	34	28.33
7	Type of house	Hut	3	2.50
		Semi-cemented	77	64.17
		Cemented	40	33.33

| 8 | Family size | Less than 5 members | 66 | 55.00 |
| | | More than 5 members | 54 | 45.00 |

9	Mass media exposure	Mobile+Radio/Newspaper	6	5
		Mobile+ Television	87	72.50
		Mobile+Radio/newspaper +television	7	5.83
		Mobile+Television+ Internet	20	16.67
10	Extension contact	High	16	13.33
		Medium	68	56.67
		Low	36	30.00
11	Innovativeness	Low	27	22.50
		Medium	53	44.17
		High	40	33.33
12	Knowledge	Low	20	16.67
		Medium	60	50.00
		High	40	33.33

From the above table 1, it was found that maximum number of respondents (75.83%) belonged to the age group of above 51 years, 67.50 per cent of the respondents were educated up to high school. Majority (55.00%) of the respondents only do farming as their occupation, Majority (52.50%) of the respondents have less than 10 years of farming experience, majority (65.00%) of the respondents have an annual income of above 3lakh, 37.50 per cent of the farmers have land holding of 1-2 ha, 64.17 per cent of the respondents have semi-cemented type of houses, 55.00 per cent have less than 5 members in a family, 56.67 per cent of the respondents have medium level of extension contact, 44.17 per cent of the respondents have medium level of innovativeness and 50.00 per cent of the respondents have medium level of knowledge.

Table 2: Distribution of respondents based on their level of adoption.

S.no	Statements	Partially adopted		Adopted		Not adopted		Total	
		F	%	F	%	F	%	F	%
1.	What are the recommended pineapple varieties for this area?	25	20.83	56	46.67	39	32.50	120	100.00
2.	Name the suitable soil for pineapple cultivation.	38	31.67	58	48.33	24	20.00	120	100.00
3.	Propagation method-	36	30.00	64	53.33	20	16.67	120	100.00
4.	Which type of dipping is used before planting?	31	25.83	61	50.84	28	23.33	120	100.00
5.	Suitable month for planting-	39	32.50	48	40.00	33	27.50	120	100.00
6	Planting system-	33	27.50	53	44.16	34	28.33	120	100.00
7	Depth of planting-	32	26.67	53	44.16	35	29.17	120	100.00
8	Spacing between- a. Row-row b. Plant-plant	32	26.67	66	55.00	22	18.33	120	100.00
9	Required number of plants/ha	38	31.67	54	45.00	28	23.33	120	100.00
10	Application of- a. FYM b. Nitrogen c. Phosphorous d. Potassium	24	20.00	58	48.33	38	31.67	120	100.00
11	Irrigation interval	35	29.17	49	40.83	36	30.00	120	100.00
12	Weeding method	30	25.00	45	37.50	45	37.50	120	100.00
13	Earthing interval	31	25.83	63	52.50	26	21.67	120	100.00
14	Mulching materials-	28	23.33	48	40.00	44	36.67	120	100.00
15	Growth regulators applied-	45	37.50	56	46.67	19	15.83	120	100.00
16	Name of important pest and diseases of pineapple.	18	15.00	67	55.83	35	29.17	120	100.00
17	Harvesting time	22	18.33	61	50.84	37	30.83	120	100.00
18	Harvested by	35	29.17	49	40.83	36	30.00	120	100.00

19	Yield/ha	21	17.50	66	55.00	33	27.50	120	100.00
20	Ratooning	45	37.50	45	37.50	30	25.00	120	100.00
21	Post-harvest management.	32	26.67	53	44.16	35	29.17	120	100.00
22	Preparation of value added products.	33	27.50	67	55.83	20	16.67	120	100.00

Table 3: Distribution of the respondents regarding the level of adoption;

Sr. no	Category	Frequency	Percentage
1	Low(22 - 37)	24	20.00
2	Medium (38-52)	58	48.33
3	High (53-67)	38	31.67

The data in table 4.5, inferred that (48.33%) of pineapple growers were belonged to medium level of adoption. Whereas (20.00%) and (31.67%) of the respondents belonged to low and high adoption category respectively

Table 4: Relationship between profile of pineapple growers and their adoption level of recommended practice of pineapple.

S.No	Characteristics	'r' value
1	Age	0.432*
2	Education	0.312*
3	Land holding	0.351*
4	Farming experience	0.194*
5	Occupation	0.021[NS]
6	Annual income	0.015[NS]
7	Type of house	0.142*
8	Family size	0.172*
9	Media exposure	0.140*
10	Extension contact	0.132*
11	Innovativeness	0.152*
12	Knowledge	0.172*

*= Significant   NS= Non-Significant

From the above table 4 the correlation coefficient 'r' between the independent factors and adoption level of respondents was found to be positive in terms of age, education, land holding, farming experience, type of house, family size, media exposure, extension contact, innovativeness and level of knowledge. The 'r' value for occupation, annual income and is non-significant.

Conclusion:

The objective of this paper is to find out the level of knowledge and adoption of pineapple growers about improved management practices of pineapple and also the relationship between profile of pineapple growers and their adoption level of recommended practice of pineapple**.**

Thus, from the above findings, it can be concluded that many of pineapple growers (48.33%) belonged to medium level of adoption and the relationship between the independent factors and adoption level of respondents was found to be positive in terms of age, education, land holding, farming experience, type of house, family size, media exposure, extension contact, innovativeness and level of knowledge. The 'r' value for occupation, annual income and is non-significant.

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