



Technological Gap in Pineapple Cultivation in Dimapur District of Nagaland

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Abstract:

The study was conducted to examine the technological gap in recommended cultivation practices of pineapple in Dimapur district of Nagaland. A total of 120 respondents were personally interviewed by the researcher using a pre-tested interview schedule. The result of technological gap revealed that the highest (100%) technological gap was found in recommended practices like planting time, treatment of planting materials, manure and fertilizers, intercultural operations, growth regulators and Insect Disease Management. And the lowest was found in recommended varieties with 0% technology gap.

Keywords: Technological gap, Pineapple

Introduction:

Pineapple is an important fruit crop in India. It is herbaceous perennial, which grows to about 1-1.5 m tall. It is a good source of vitamin A and B and fairly rich in vitamin C as well. It also contains a digestive enzyme called bromelin. The cultivation of pineapple is confined to high rainfall and humid coastal regions in the peninsular India and hilly areas of NE regions of the country. It can also be grown in the interior plains with medium rainfall and supplementary protective irrigation. At present in India, pineapple is grown commercially in Assam, Meghalaya, Tripura, Mizoram, West Bengal, Kerala, Karnataka, and Goa. And a small scale in Gujarat, Maharashtra, Tamil Nadu, Andhra Pradesh, Orissa, Bihar and UP.

The state of Nagaland is known for its potential to grow various horticultural crops. Pineapple being one of them and is supported by the Government of Nagaland for its commercialization, so it is grown by many farmers. It has a total production of 83002 MT and an area of 3000 ha. Here Pineapple cultivation is done traditionally which results in low yield. In addition to this, pineapple is cultivated organically by default. Pineapple grown here is considered to be among the best in the world as they are very sweet with little or no fiber. Three varieties of pineapple are generally grown in Nagaland. These are Queen, Kew and Giant. Among these three the Kew variety which is also locally known as Giampew is grown in abundance.



Research Method:

Descriptive Research Design was used for the study as it describes the characteristics or phenomena that are being studied. The purpose of descriptive research is description of the state of affairs as it exist at present. Primary data was collected through personal interview with the help of pre-tested interview schedule. Secondary data was collected from available reports, journals etc.

Objectives of the study:

To assess the socio-economic characteristics of the respondents.

To measure the technological gap between knowledge and level of adoption by the respondents in improved cultivation practices.

Results and Discussion:

Distribution of socio-economic profile of the respondents.

Table 1. Distribution of the respondents based on their age:

Sl. No.	Age (years)	Frequency	Percentage (%)
1	<39	23	19.17
2	39-60	76	63.33
3	>60	21	17.5
	Total	120	100

From the above given table 1. it is found that 63.33 per cent of the respondents belonged to the age category 39-60 years which is followed by 19.17 per cent belonging to the age category <39 years and the remaining 17.5 per cent belonged to the age group >60 years.

Table 2. Distribution of respondents-based their Gender:

Sl. No.	Category	Frequency	Percentage (%)
1	Male	68	56.67
2	Female	52	43.33
	Total	120	100

From the above give table 2. it is found that majority (56.67 per cent) of the respondents were male and the rest 43.33 were female.



Table 3. Distribution of respondents based on their family size:

Sl. No.	Size of family	Frequency	Percentage (%)
1	Small (<4 members)	22	18.33
2	Medium (4-8 members)	84	70
3	Large (>8 members)	14	11.67
	Total	120	100

From the above given table 3. it is found that 70 per cent of the respondents had medium size family followed by 18.33 per cent of respondents having small family size and 11.67 per cent of respondents with small family size.

Table 4. distribution of respondents based on their family type:

Sl. No.	Type of family	Frequency	Percentage (%)
1	Joint	22	18.33
2	Nuclear	98	81.67
	Total	120	100

Table 4. reveals that most (81.67%) of the respondents had nuclear family while 18.33 per cent had joint family.

Table 5. distribution of respondents based on their education:

Sl. No.	Category	Frequency	Percentage (%)
1	Illiterate	33	27.51
2	Primary	10	8.33
3	Middle school	34	28.33
4	High school	24	20
5	Pre university	19	15.83
6	Graduation	0	0
	Total	120	100

From the above given table 5. we can find that majority (28.33%) of the respondents were educated up to middle school level, 27.51 per cent were illiterate, 20 per cent of them had high school level education followed by 15.83 per cent with pre university level education and 8.33 per cent of the respondents had primary level of education.



Table 6. distribution of respondents based on size of land holding:

Sl. No.	Category of farmers	Frequency	Percentage (%)
1	Marginal	56	46.67
2	Small	62	51.66
3	Medium	2	1.67
	Total	120	100

Table 6. revealed that 51.66 per cent of the respondents had small size of land holding, and 46.67 per cent of them had marginal size of land holding and very little (1.67) of them had medium size land holding.

Table 7. distribution of respondents based on their annual income:

Sl. No	Annual income of farmers	Frequency	Percentage (%)
1	<87881	19	15.83
2	87881-194990	83	69.17
3	>194990	18	15
	Total	120	100

According to above given table 4.1.7. and fig. 4.1.7. 69.17 per cent of the respondents had Rs. 87881-Rs.194990 annual income while 15.83 per cent of the respondents had annual income less than Rs 87881 and the remaining 15 per cent of the respondents were found to have more than Rs 194990 annual income.

Table 8. Distribution of respondents based on training exposure:

Sl. No.	Category	Frequency	Percentage (%)
1	Training not attended	28	23.33
2	Training attended	92	76.67
	Total	120	100

According to the above given table 8. it is found that 76 per cent of the respondents did not undergo any training, while 23.33 per cent of the respondents underwent training.



Table 9. Distribution of respondents based on their experience:

Sl. No.	Level of experience	frequency	Percentage
1	Low (<22 years)	21	17.5
2	Medium (22-43 years)	76	63.33
3	High (>43 years)	23	19.17
	Total	120	100

From the above give table 9. it is revealed that most (63.33%) of the respondents had medium level of experience while 19.17 per cent had high level of experience followed by 17.5 per cent of respondents who had low level of experience.

Table 10. Distribution of respondents based on technological gap

Sl. No.	Areas of recommended practices	Average tech. gap (%)	Rank
1	Land preparation	52.78	V
2	Varieties	0	VIII
3	Soil	71.45	IV
4	Propagation	72.29	III
5	Planting time	100	I
6	Planting material	100	1
7	Treatment of planting material	100	I
8	Spacing	43.33	VII
9	Manure	100	I
10	Mulching	78.05	II
11	Weeding	50	VI
12	Intercultural operation	100	I
13	Irrigation	50	VI
14	Growth regulator	100	I
15	Harvesting	50	VI
16	Insect & disease management	100	I



Table 10. shows that some of the recommended practices like planting time, planting material, treatment of planting material, manure & fertilizer, intercultural operation, growth regulator, and insect disease management had an average technological gap percentage of 100 per cent respectively making them rank 1st. Mulching had technological gap percentage of 78.05 per cent ranking 2nd. Propagation ranked 3rd with technological gap of 72.29 per cent. Soil ranked 4th with technological gap percentage of 71.45 per cent. Land preparation ranked 5th with technological gap of 52.78 per cent. Recommended practices like weeding, irrigation and harvesting ranked 6th with technological gap of 50 per cent while spacing ranked 7th with a technological gap of 43.33 per cent. And varieties ranked 8th with a technological gap of 0 per cent.

Conclusion:

It is therefore concluded from the study that the Majority (63.33%) of the respondents were male. The respondents mostly belonged to the age group of 30-60 years. Majority of them belonged to medium size family and had nuclear type of family. Most of them were literate with majority of them having middle school level of education. It was also observed that the respondents were mostly from the small size land holding category. Majority of the respondents fell under the medium category of annual income. With regard to training, the number of respondents who did not undergo training in the last 3 years were on the higher side. It was also found that most of the respondents had medium level of experience in pineapple cultivation. Technology gap was highest in terms of recommended practices like planting time, planting material, treatment of planting material, manure and fertilizer, intercultural operation, growth and regulator and insect disease management.

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