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Knowledge of farmers towards improved Foxnut (Thangjing) cultivation practices in Bishnupur District of Manipur

¹Bharati Lairenjam and ²Dipak Kumar Bose

¹M.Sc. (Agri.), Department of Agricultural Extension Education, SHUATS, Prayagraj, Uttar Pradesh, India

²Professor, Department of Agricultural Extension and Communication, SHUATS, Prayagraj, Uttar Pradesh, India

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Corresponding Author: Bharati Lairenjam

Abstract

The study was on Adoption behaviour of farmers towards improved Foxnut (Thangjing) cultivation practices in Bishnupur District of Manipur, conducted in the session 2023-2024. A total number of 120 respondents were taken randomly from Bishnupur District under Nambol Block. The primary data was collected using pre-structured interview schedule and appropriate statistical analysis to obtain the results. The study's finding shows that 45 per cent of the respondents are of old age group and 24.16 per cent of the respondents were educated up-to graduate. It was revealed that majority (54.17%) of the respondents are engaged in farming only. It was found that majority (55%) of the respondents have 1-2 acres of land and 35 per cent of the respondents have 10-20 years of farming experience with 43.33 per cent of the respondents' annual income as 50,001 to 1,00,000 rupees. It shows that majority (58.33%) of the respondents have medium level category knowledge towards improved foxnut cultivation practices. It revealed that out of ten independent variables, i.e. age, education, occupation, farming experience, annual income, mass media exposure, risk bearing capacity, land holding, extension contact and scientific orientation positively and significantly correlated with knowledge of farmers towards improved Foxnut cultivation practices.

Keywords: Foxnut (Thangjing), knowledge, improved cultivation practices

Introduction

Foxnut (*Euryale ferox Salisb.*) is one of the major cash crops in Manipur. It is commonly known as Thangjing in Manipur. It is cultivated mainly in the valley districts of Manipur namely Bishnupur, Thoubal, Imphal East and Imphal West districts. It is an aquatic cash crop grown in perennial water bodies like ponds and lakes. In Manipur, foxnut cultivation can be a potential source of income for lower-income families. In some higher-income families, Foxnut cultivation is practised as a side-income business to earn more profit.

Farmers in the Bishnupur District of Manipur practice traditional methods of foxnut cultivation. They use a local variety "Chakhao-nambi" sometimes. They can get four to five times harvest once they cultivate. They didn't use any organic fertilizer. They had hardly used NPK. Most of the farmers rely on their livelihood in Foxnut cultivation.

Foxnut plays an important role in the treatment of various diseases and is often sold in the local market thereby providing livelihood to a large number of rural people. It is widely been used in traditional oriental medicine to cure several diseases including kidney problems, diarrhoea, etc. in Manipur.

Objectives

- To understand the socio-economic profile of the respondents.
- To understand the knowledge of the respondents towards improved foxnut cultivation practices.

Research Methodology

Descriptive research design was followed for the present study. This design was followed as it is used to describe characteristics of a population or phenomenon being studied. It is a scientific method which involves observing and describing the behaviour of the subject without influencing any way. The study was conducted at Bishnupur district of Manipur. There are 3 blocks in Bishnupur district of Manipur, out of which Nambol block was selected purposively based on maximum area under foxnut cultivation. There are 14 villages in Nambol block, out of which two villages namely Nambol Naorem and Nambol Oinam were selected for the present study on the basis of maximum area under foxnut cultivation. A total number of 120 respondents who were engaged in foxnut cultivation were selected randomly for the present study.

Results and Discussion

Socio-economic Profile of the respondents

Table 1: Profile characteristics of the respondents

Sl. No.	Variables	Intervals	Frequency	Percentage
1	Age	Young (Below 35 years)	21	17.5
		Middle (36-55 years)	45	37.5
		Old (Above 55 years)	54	45
2	Education	Illiterate	17	14.17
		Up to Primary	24	20
		High School	21	17.5
		Intermediate	22	18.33
		Graduate	29	24.17
		Post graduate	7	5.83
3	Occupation	Only Farming	65	54.17
		Farming + Business	34	28.33
		Farming + Service	13	10.83
		Farming + any other	8	6.67
4	Annual Income	Up to 50,000	42	35
		50,001-1,00,000	52	43.33
		Above 1,00,001	26	21.67
5	Land holding	Up to 1 acre	42	35
		1-2 acre	66	55
		Above 2 acre	12	10
6	Farming experience	Up to 10 years	41	34.17
		11-20 years	42	35
		Above 20 years	37	30.83
7	Extension contact	Never	45	37.5
		Sometimes	58	48.33
		Always	17	14.17
8	Mass Media Exposure	Low	22	18.33
		Medium	46	38.34
		High	52	43.33
9	Risk bearing capacity	Low	47	39.17
		Medium	66	55
		High	7	5.83
10	Scientific orientation	Low	39	32.5
		Medium	66	55
		High	15	12.5

From the above table, it was revealed that 45 per cent of the respondents are of old age group and 24.16 per cent of the respondents were educated up-to graduate. It was revealed that majority (54.17%) of the respondents are engaged in farming only. It was found that majority (55%) of the respondents have 1-2 acres of land and 35 per cent of the respondents have 10-20 years of farming experience with 43.33 per cent of the respondents' annual income as 50,001 to 100,000 rupees. It stated that 48.33 of the respondents have their contact with extension worker sometimes. It

found that 43.33 per cent of the respondents have high level towards mass media exposure. It reveals that majority (55%) of the respondents have medium level category towards risk bearing capacity and again majority (55%) of the respondents have medium level category towards scientific orientation. Similar results were also reported by Ahmad *et al.*, (2020) ^[1].

Knowledge of the respondents towards improved foxnut cultivation practices

Table 2: Knowledge level of the respondents towards improved foxnut cultivation practices

Sl. No.	Statements	Evaluations		
		Fully correct F (%)	Partially correct F (%)	Not correct F (%)
1	Water type: pond water	112 (93.34)	07 (5.83)	01 (0.83)
2	Preparation practice	110 (91.66)	08 (6.67)	02 (1.67)
3	Variety	109 (90.83)	08 (6.67)	03 (2.50)
4	Planting Techniques	108 (90.00)	08 (6.67)	04 (3.33)
5	Planting time	107 (89.17)	12 (10.00)	1 (0.83)
6	Spacing	109 (90.83)	3 (2.50)	8 (6.67)
7	Organic source	12 (10.00)	09 (7.50)	99 (82.50)
8	Fertilizer application	3 (2.50)	66 (55.00)	51 (42.50)
9	Training	113 (94.17)	6 (5.00)	01 (0.83)
10	Pruning	2 (1.67)	5 (4.17)	113 (94.16)
11	Plant protection measures	36 (30.00)	45 (37.50)	39 (32.50)

12	Thinning	09 (7.50)	12 (10.00)	99 (82.50)
13	Method of harvesting	4 (3.33)	85 (70.83)	31 (25.84)
14	Time of harvesting	117 (97.50)	02 (1.67)	1 (0.83)
15	Yield More than/about 1200-1500 kg/ha/year	65 (54.17)	4 (3.33)	51 (42.5)
	Less than 1200-1500 kg/ha/year	45 (37.5)	7 (5.83)	68 (56.67)

F= Frequency %= Percentage

Table 3: Knowledge level wise distribution of the respondents

Sl. No.	Knowledge	Frequency	Percentage
1	Low (47-49)	15	12.5
2	Medium (50-52)	70	58.33
3	High (53-55)	35	29.17
	Total	120	100.00

It found out that majority (58.33%) of the respondents have medium knowledge level towards improved foxnut cultivation followed by 29.17 per cent of the respondents have high level of knowledge and 12.5 per cent of the respondents have low level of knowledge towards improved foxnut cultivation practices. Similar results was also reported by Jana *et al.*, (2017) [2].

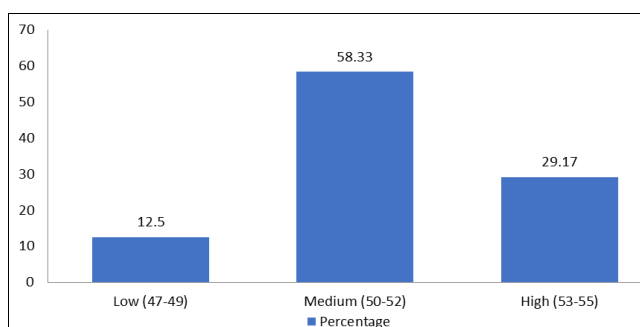


Fig 1: Distribution of respondents based on the knowledge level of foxnut cultivation

Relationship between selected independent variables with the knowledge of the respondents towards improved foxnut cultivation practices

Table 4: Relationship between selected independent variables and knowledge

Sl. No.	Variables	Correlation coefficient ('r' Value)
1	Age	0.5843*
2	Education	0.4234*
3	Occupation	0.4106*
4	Income	0.5204*
5	Land holding	0.5775*
6	Farming experience	0.3394*
7	Extension Contact	0.4543**
8	Mass Media Exposure	0.6449**
9	Risk Bearing Capacity	0.4592**
10	Scientific Orientation	0.6546**

** = Significant at 0.01 level of probability

* = Significant at 0.05 level of probability

NS = Not Significant

The data presented in table 4 stated that all the independent variables i.e. age, education, occupation, income, land holding, farming experience, extension contact, mass media exposure, risk bearing capacity and scientific orientation are positively and significantly correlated with knowledge towards improved foxnut cultivation practices.

Conclusion

It is concluded that most of the respondents are old age group (above 55 years), most of the respondents are educated up to graduate, majority of the respondents are engaged in farming only, most of the respondents' annual income was in between 50,001-100,000 rupees, majority of the respondents' land holding was in between 1-2 acre with farming of most of the respondents was up to 11-20 years. Majority of the respondents move medium level knowledge level followed by high and low level in respective to the recommended practices. The factors influencing the knowledge towards improved foxnut cultivation practices were. age, education, occupation, income, land holding, farming experience, extension contact, mass media exposure, risk bearing capacity and scientific orientation are positively and significantly correlated with knowledge towards improved foxnut cultivation practices. Farmers should be trained for better productivity, proper education on plant protection measures, and farm management practices should be ensure by Department of Agriculture.

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