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Knowledge of Farmers towards Hathei Chilli Production Practices in Sirarakhong Village of Ukhrul District, Manipur

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

A study is conducted in Sirarakhong Village, Ukhrul district, Manipur. A total of one hundred twenty respondents were selected for the study. The primary information were collected through pre-tested interview schedule. The finding shows that 46.67 per cent of the respondents were having medium category of knowledge towards improved Hathei Chilli production practices. Age, education, occupation, land holding, farming experience, innovativeness, and economic motivation were found positively correlated with their knowledge category of the respondents.

Keywords: *Knowledge; production practices; hathei chilli.*

1. INTRODUCTION

The Hathei chilli also known as Sirarakhong chilli, is one of the best chilli variety in the world. This unique variety of chilli is only found in Sirarakhong village of Ukhrul District, Manipur.

Hathei chilli was recently awarded GI (Geographical Indication) Tag (2021).

Hathei chilli also known as Hathei, is an indigenous chilli variety only found in a remote Tangkhul inhabited village nestled in Mahadev hills of Manipur's Ukhrul district. Being hot the

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sound produced “ha” and “thei” which means fruit in Tangkhul dialect, the plant came to be known as Hathei. Since then, this particular chilli has been grown in this village for many years. The main source of income for the villagers is the cultivation of this chilli. The cultivation of Hathei chilli is done by about 200 households with a total population of 1243. The village produces approximately 5000 kilograms of Hathei chilli per year. Every six months every household harvests around 100-300 kilograms of chilli. Due to hilly terrain and poor road conditions, farmers were unable to bring large quantity of chilli to Imphal for marketing. It is mostly sold in bulk and marketed in Ukhrul.

The findings of the study are expected to help in the development of strategies for addressing farmers knowledge behaviour in order to maximize it, as well as addressing the constraints faced by the farmers in adopting the recommended practices for Hathei chilli production practices.

2. RESEARCH METHODOLOGY

Descriptive research design was used for this study. The research was carried out purposively in Lungchong Maiphei block of Ukhrul District, Manipur. Sirarakhong village was purposively chosen because it is the only place where Hathei Chilli grows and grown. As a sample for the study, one hundred and twenty respondents were chosen randomly.

3. OBJECTIVE OF THE STUDY

- To study the socio-economic profile of the respondents.
- To determine the knowledge of the respondents towards Hathei chilli production.

4. METHOD USED FOR DATA COLLECTION

For the primary data collection, personal interview and a pre-tested interview schedule was used. And secondary data was obtained from books, journals, research paper etc. The collected data were classified, tabulated and analyzed in light of the objective.

5. DATA STATISTICAL ANALYSIS

The data was converted to 3 point score (Likert Scale) and tabulated. The evaluation of the data and the relationship between the independent

and dependent variables was done using Mean, Frequency, Percentage and Correlation.

6. RESULTS AND DISCUSSIONS

Table 1 shows that 41.66 per cent of the respondents are of old age group (above 55 years). It is observed that 27.50 per cent of the respondents belongs to junior high school category. It reveals that 37.50% of the respondents are engaged in agriculture + labour. It shows that majority of the respondents (80.00%) of the respondents had housing pattern as hut. It is observed that majority (55.83%) of the respondents had 1 to 2 acres of land holding, similarly it is observed that majority (64.17%) of the respondents had above 15 years of farming experience. It is stated that 48.33 per cent of the respondents had annual income of 50,001 to 1,00,000 rupees. It is found that majority (53.33%) of the respondents belongs has medium category of mass media exposure. It shows that (68.33%) of the respondents belongs has medium category of innovativeness. It is observed that majority (75.83%) of the respondents has high category risk orientation, (82.50%) of the respondents has high category economic motivation. Similar result is also reported by Tomar et al., [1].

The above table 2 shows that majority (70.00 %) of the respondents fully knows the suitable soil type for Hathei chilli, 20.00 per cent of the respondents partially knows the suitable soil type and 9.17 per cent have not known for suitable soil type. It revealed that majority (87.50%) of the respondent fully knows about seed treatment, 9.17 per cent of the respondent does not know about seed treatment and 3.33 per cent of the respondents partially knows about seed treatment. It revealed that majority (95.00%) of the respondents fully knows the sowing time, 3.33 per cent of the respondent partially knows the sowing time of Hathei chilli, followed by 1.67 per cent of the respondent have not known level. It stated that majority (88.33%) of the respondent fully knows about sowing depth, 8.33 per cent of the respondents partially knows about sowing depth and 3.33 per cent of the respondents does not know about sowing depth of Hathei chilli. It revealed that 49.17 per cent of the respondents does not know the common insect of Hathei chilli, 28.33 per cent of the respondents have partially known knowledge and 20.83 per cent of the respondents fully knows the common insect of Hathei chilli.

Table 1. Socio-economic characteristics distribution of the respondents

Category	Frequency	Percentage
Age		
Young (Below 35 Years)	27	22.50
Middle (36-55 Years)	43	35.83
Old (Above 55)	50	41.67
Education		
Illiterate	11	9.17
Can read and write	17	14.17
Primary School	21	17.50
Junior High School	33	27.50
Intermediate	22	18.33
Graduate and Above	16	13.33
Occupation		
Agriculture only	25	20.83
Agriculture + Labour	45	37.50
Agriculture + Business	37	30.83
Agriculture + Service	13	10.83
Housing Pattern		
Hut	96	80.00
Semi cemented	16	13.33
Cemented	8	6.67
Land Holding		
Up to 1 acre	21	17.50
1 to 2 acres	67	55.83
Above 2 acre	32	26.67
Farming Experience		
Up to 5 years	11	9.16
5-10 years	9	7.50
10-15 years	23	19.17
Above 15 years	77	64.17
Annual Income		
Up to 50,000	20	16.67
50,001 to 1,00,000	58	48.33
Above 1,00,000	42	35.00
Mass Media Exposure		
Low (5-7)	38	31.67
Medium (8-10)	64	53.33
High (11-13)	18	15.00
Innovativeness		
Low (15-18)	27	22.50
Medium (19-23)	82	68.33
High (24-27)	11	9.17
Risk Orientation		
Low (7-9)	4	3.34
Medium (10-12)	25	20.83
High (13-15)	91	75.83
Economic Motivation		
Low (10-12)	4	3.33
Medium (13-15)	17	14.17
High (16-18)	99	82.50

Table 2. Knowledge of respondents towards Hathei chilli production practices

Sl. No.	Statements	Evaluations		
		Full Known F (%)	Partially Known F (%)	Not Known F (%)
1.	Suitable soil	84 (70.00)	24 (20.00)	11 (9.17)
2.	Seed treatment	105 (87.50)	4 (3.33)	11 (9.17)
3.	Sowing time	114 (95.00)	4 (3.33)	2 (1.67)
4.	Sowing depth	106 (88.33)	10 (8.33)	4 (3.33)
5.	Common insect	25 (20.83)	34 (28.33)	59 (49.17)
6.	Common pest and disease	49 (40.83)	29 (24.17)	42 (35.00)
7.	Use of fungicide, insecticide or pesticides	63 (52.50)	10 (8.33)	47 (39.17)
8.	Need of chemical fertilizers	77 (64.17)	9 (7.50)	34 (28.33)
9.	Name of fertilizer	51 (42.50)	9 (7.50)	60 (50.00)
10.	Dose of fertilizer	44 (36.67)	18 (15.00)	58 (48.33)
11.	When is it used	64 (53.33)	6 (5.00)	50 (41.67)
12.	Method of application	61 (50.83)	6 (5.00)	53 (44.17)
13.	Weeding stage	113 (94.17)	5 (4.17)	2 (1.67)
14.	Advantage of Weedicide	58 (48.33)	5 (4.17)	57 (47.50)
15.	Weedicide for weed control	58 (48.33)	7 (5.83)	55 (45.83)
16.	Harvesting	118 (98.33)	0 (0.00)	2 (1.67)
17.	Expected yield	101 (84.17)	6 (5.00)	13 (10.83)
18.	Use of fumigants	0 (0.00)	0 (0.00)	120 (100.00)
19.	Which fumigants	0 (0.00)	0 (0.00)	120 (100.00)
20.	Crop rotation	101 (84.17)	10 (8.33)	8 (6.67)

F – Frequency %- Percentage

It is observed that 40.83 per cent of the respondent knows about the common pest and diseases of Hathei Chilli, 35.00 per cent of the respondents does not the common pest and diseases and 24.17 per cent of the respondents partially knows about the common pest and diseases of Hathei Chilli. It shows that (52.50%) of the respondents fully knows about use of pesticides, fungicides or insecticides, 39.17 per cent of the respondents does not know followed by 8.33 per cent of the respondents partially knows the use of pesticides, fungicides or insecticides. It is observed that majority (64.17%) of the respondent fully knows the need of fertilizers, 28.33 per cent of the respondent does not know the need of fertilizers and 7.50 per cent of the respondent partially knows the need of fertilizers. It revealed that 50.00 per cent of the respondents does not know the name of fertilizers used, 42.50 per cent of the respondents fully knows the name of the fertilizers used and 7.50 per cent of the respondents partially knows the name of the fertilizers used. It shows that 48.33 per cent of the respondents does not know the recommended dose of fertilizers, 36.67 per cent of the respondents fully knows the recommended dose of fertilizers and 15.00 per cent of the respondents partially knows the recommended

dose of fertilizers. It is observed that majority (53.33%) of the respondent fully knows when fertilizer should be used, 41.67 per cent of the respondent does not know when fertilizer are used and 5.00 per cent of the respondent partially know when fertilizers are used. It stated that majority (50.83 %) of the respondents fully knows the method of application, 44.17 per cent of the respondents does not know the method of application and 5.00 per cent of the respondent partially knows the method of application. It shows that majority (94.17%) of the respondents fully knows about weeding stage of Hathei Chilli, 4.17 per cent of the respondents partially knows the weeding stage and 1.67 per cent of the respondents does not know the weeding stage. It is observed that 48.33 per cent of the respondents fully knows the advantage of Weedicide, 47.50 per cent of the respondents does not know the advantage of Weedicide and 4.17 per cent of the respondents partially knows the advantage of Weedicide. It stated that 48.33 per cent of the respondents fully knows Weedicide as weed control agent, 45.83 per cent of the respondent does not know and 5.83 per cent of the respondents partially knows Weedicide as weed control agent. It revealed that majority (100%) of the respondent fully knows about harvesting time of Hathei chilli. It is

stated that majority (84.17%) of the respondents fully knows the expected yield of Hathei chilli, 10.83 per cent of the respondent does not know the expected yield and 5.00 per cent of the respondent partially knows the expected yield of Hathei chilli. It is observed that majority (100%) of the respondents does not know about

the use and names of fumigants. It is observed that majority (84.17%) of the respondents fully knows about crop rotation, 8.33 per cent of the respondents partially knows about crop rotation and 6.67 per cent of the respondents does not know about crop rotation.

Table 3. Overall Knowledge level of farmers towards improved Hathei chilli production practices of the respondents (N=120)

Knowledge level		
Category	Frequency	Percentage
Low (28-37)	18	15.00
Medium (38-47)	56	46.67
High (48-55)	46	38.33
Total	120	100.00

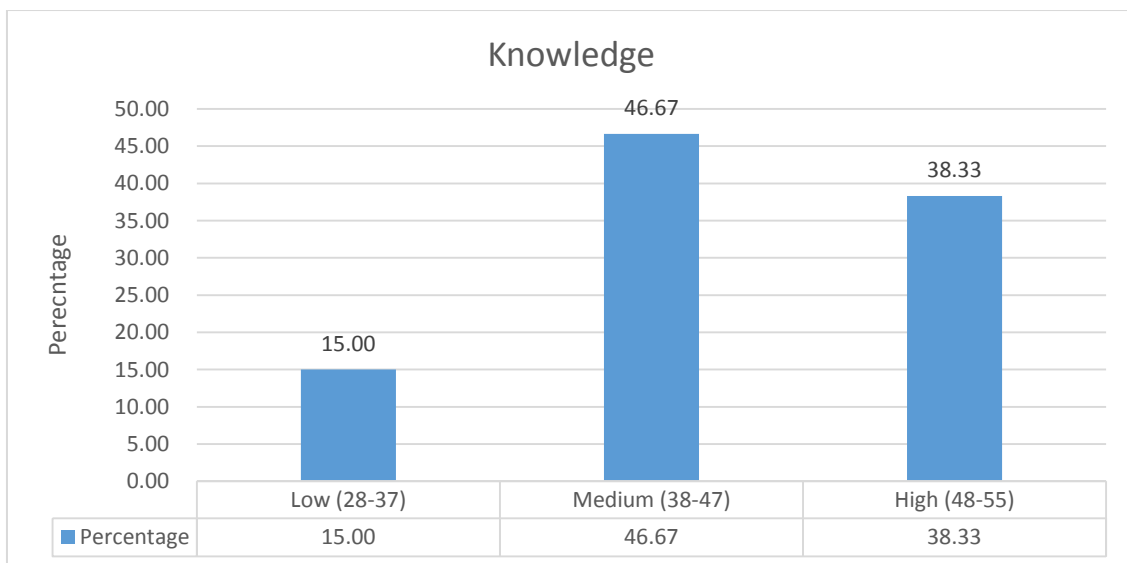


Fig. 1. Knowledge level of the respondents in percentage

Table 4. Relationship between the selected independent variables with knowledge of farmers towards improved Hathei Chilli production practices

Sl. No.	Variables	Correlation Coefficient ('r' Value)
1.	Age	0.848287296**
2.	Education	0.92129109**
3.	Occupation	0.578393894*
4.	Housing Pattern	-0.943108629NS
5.	Land Holding	0.847501749**
6.	Farming Experience	0.319685607**
7.	Annual Income	0.98454409**
8.	Mass Media Exposure	0.325754209**
9.	Innovativeness	0.534357579**
10.	Risk Orientation	0.479736137*
11.	Economic Motivation	0.383411481**

* = Significant at 0.05 level of probability

** = Significant at 0.01 level of probability

NS = Non Significant

The above Table 4 revealed out of eleven independent variables i.e. age, education, occupation, land holding, farming experience, annual income, mass media exposure, innovativeness, risk orientation and economic motivation are positively and significantly correlated with the knowledge of farmers towards improved Hathei chilli production practices whereas the independent variable i.e. housing pattern of the respondents is availed negatively and non-significantly correlated with knowledge of farmers towards improved Hathei chilli production practices. Similar findings is also reported by Naik et al. [3].

7. CONCLUSION

It was concluded that the socio-economic profile of the respondent, 41.67 per cent of the respondents are of old age (above 55 years) [4]. 27.50 per cent has attain junior high school in their education. 37.50 per cent are engage in agriculture+labour as their occupation. Majority of the respondents live in Hut, has above 15 years of farming experience, with land holding of 1 to 2 acres category and an annual income of 50,001 to 1lakh category. Most of respondents had medium category of overall knowledge towards improved Hathei Chilli production practices. The factors influencing the knowledge of farmers towards improved Hathei Chilli production practices were age [5,6], education, land holding, farming experience, annual income, mass media exposure, innovativeness, risk orientation and economic motivation which were directly co-related with knowledge towards improved Hathei Chilli production practices. Farmers should be trained for better productivity, timely availability of organic fertilizers and proper education on plant protection measures should be ensured the Department of Agriculture.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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