Knowledge of the Respondents towards Black Pepper Production Technology in Idukki District of Kerala, India

Abstract

A study entitled "Knowledge of respondents towards Black pepper production technology in Idukki District of kerala, India" was carried out to study the knowledge level of Pepper growers. A structured interview schedule was developed to complete the study and 120 Black pepper growers were taken from 5 villages of the selected block of the District purposively. The knowledge level of the respondents clearly visible that majority 49.17 per cent of the black pepper growers had medium level of knowledge on black pepper production technology, 28.33 per cent and 22.50 percent of the black pepper growers had low and high level of knowledge on black pepper production technology respectively . It can be concluded that knowledge level of majority of respondents was medium.

Keywords: Knowledge, Black Pepper, Black Pepper production technology

1. Introduction:

"The Black pepper is the one of the most ancient and traditional spice crops of India which has been produced and traded worldwide. India reigned supreme till 1990's in the production and export of pepper, however, now it stands second in production and export. Black pepper is cultivated mostly by small and marginal holders and their livelihood has crucial bearing on this crop. Idukki and Wayanad are two major pepper producer districts in Kerala".(**Scaria 2019**)

"Black pepper (Piper nigrum L.) is a flowering vine in the family piperaceae, cultivated for its fruit, known as a peppercorn, which is usually dried and used as a spice and seasoning. Pepper is one of the important cash crop of india, which is mainly exported to the USA,UK, Italy,Canada and Germany"(**Rana 2012)**

"Black Pepper, called as "Black Gold " and the King of spices has been an important agricultural commodity in india since pre- historic period".(**Eliyas 2019).** "Richness of the culture and the fragrance of the spices were the major sources of glory of the ancient India. It is undoubtable that, for every country in the world, agriculture is an indispensable sector that accelerates economic growth and development" (**Ntabakirabose 2022). "**It is really amazing to see that India could maintain her supremacy in the production and trade of spices even the Vedic ages dating back to 6000 B.C, to the modem era of the third millennium. India was the leading producer in the world

until 1999 with 76000 metric tons of pepper but its production declined to 51000Mtin 2010 and ranked fourth in the world" (**FAO 2010**). Several studies were done to find out the cause of the fall in pepper production. A study of (**Hema 2007**) found that "the lower production was due to pepper crisis during 2003-04".

Pepper is one of the oldest and best-known spices in the world. India has always reigned supreme in the production and export of this most exotic and sought-after spice. Indian pepper had a profound influence on the European economy of the middle ages. Many western countries owned their prosperity to this spice, which fetched them a very high price. Easily the finest in quality anywhere, Indian pepper is grown in the monsoon forests along the Malabar Coast in South India. Here, a combination of natural advantages and organic techniques produces bigger, better shaped, more aromatic and flavourful berries. Two of the most celebrated trade varieties of Indian black pepper are 'Malabar Garbled' and "Tellichery Extra Bold'.

In India, kerala is the spice garden (**Rejula 2018)** Kerala is the largest producer of Black pepper, accounting over 50 per cent of India's total output followed by Karnataka and Tamil Nadu.

2. Methodology:

The study was undertaken to assess the knowledge of the respondents towards black pepper production technology. The Study was conducted in Idukki district of Kerala, one of the most important districts in terms of area and production of black pepper. From the district Idukki was selected purposively on the basis of highest area under black pepper crop. A pooled list of all black pepper growers was prepared for all selected villages. A sample of 120 black pepper growers is selected for the research work. A descriptive research design will be followed for the study. The present study was mainly based on primary data. The required primary data were collected from selected farmers for the agricultural year 2022-23. The requisite secondary data were collected from various published records of government offices, books, block development offices, reports, related website and other related sources. The knowledge of the respondents towards black pepper production technology through personal interview of black pepper growers, a pre structured interview schedule will be used as a tool for data collection. for achieving the stated objective, the analytical tools such as tables, charts and graphs simple ranking, percentage method were used.

3. Results and Discussion:

The study was undertaken to assess the knowledge of the respondents towards black pepper production technology.

3.1 Knowledge of the respondents towards black pepper production technology

Table 1: Knowledge of the respondents on black pepper production technology

S. No.	Statement	Response					
		Fully correct		Partially correct		Not correct	
		f	%	*f*	%	*f*	%
1.	**Field preparation**	36	30	53	44.17	31	25.83
2.	**Variety used- (local varieties , research station varieties)**	43	35.83	40	33.33	37	30.83
3.	**Selection of mother plant-Age (5-12yrs) ,Max num of spikes per unit area, Long spikes Close setting of berries**	14	11.67	64	53.33	42	35.00
4.	**Planting time: may– June**	39	32.50	62	51.67	19	15.83
6.	**Fertilizers(ha) 1.NPKS/ha:120:50:50:150g/ vine/year 2.FYM- 5-10kg mixed with top soil**	50	41.67	60	50.00	10	8.33
7.	**Irrigation: 1.Till march & holding there after. Radius 75 cm**	32	26.67	65	54.17	23	19.17
8.	**Pest of black pepper (pollu beetle , black pepper mussel scale, burrowing nematode Control measures- pollubeetle – cypermethrin 0.01% Scale – Azadiractin 5000ppm15days interval.**	21	17.50	74	61.67	25	20.83
9.	**Weed control**	28	23.33	66	55.00	26	21.66

10.	**Diseases: 1. Foot Rot 2. Quick wilt 3. Anthracnose**	37	30.83	52	43.33	31	25.83
11.	**Harvesting- older berries are hand plucked ,The berries need to be plucked before fully ripen**	36	30.00	58	48.33	26	21.67
12.	**Yield: 0.39 tonnes/ha**	54	45.00	35	29.17	31	25.83
13.	**Soil: Well drained soil,Grows well in red laterite soil**	38	31.67	50	41.67	32	26.67
14.	**Chemical weed control: 1. Pre-emergence 2. Post emergence**	29	24.17	71	59.17	20	16.67
15.	**Soil :1. PH .5.5 to 6.5**	41	34.16	73	60.83	6	5.00

It can be reported that regarding field preparation, 30.00 percent, 44.17 percent and 25.83 per cent of respondents reported fully correct, partially correct and not correct response respectively. Regarding variety, 35.83 percent, 33.33 percent and 30.83 percent of respondents reported fully correct, partially correct and not correct response respectively. Regarding selection of mother plant ,11.67 per cent, 53.33 percent and 35.00 per cent of respondents reported fully correct, partially correct and not correct response respectively. Regarding planting time, 32.50 per cent, 51.67 per cent and 15.83 per cent of respondents reported fully correct, partially correct and not correct response respectively.

Meanwhile, regarding fertilizers 41.67 per cent, 50.00 per cent and 8.33 per cent of respondents reported fully correct, partially correct and not correct response respectively. Similar finding was reported by **Afrad (2020**). Regarding irrigation, 26.67 percent, 54.17 percent and 19.17 percent of respondents reported fully correct, partially correct and not correct response respectively. Regarding pest of black pepper, 17.50 per cent, 61.67 per cent and 20.83 per cent of respondents reported fully correct, partially correct and not correct response respectively. Regarding weed control, 23.33 percent, 55.00 percent and 21.67 percent of respondents reported fully correct, partially correct and not correct response respectively. Regarding diseases, 30.83 per cent, 43.33 percent and 25.83 per cent of respondents reported fully correct, partially correct and not correct response respectively.

Similarly, regarding harvesting, 30.00 per cent, 48.33 per cent and 21.67 per cent of respondents reported fully correct, partially correct and not correct response respectively. Regarding

yield, 45.00 percent, 29.17 percent and 25.83 percent of respondents reported fully correct, partially correct and not correct response respectively. Regarding soil, 31.67 percent, 41.67 per cent and 26.67 per cent of respondents reported fully correct, partially correct and not correct response respectively. Regarding chemical weed control, 24.17 per cent, 59.17 percent and 16.67 per cent of respondents reported fully correct, partially correct and not correct response respectively. Regarding soil pH, 34.16 per cent, 60.83 per cent and 5.00 per cent of respondents reported fully correct, partially correct and not correct response respectively.

Table 2: Distribution of respondents according to their overall knowledge level

S.No.	Category	Number	Percentage
1.	Low level knowledge	34	28.33
2.	Medium level knowledge	59	49.17
3.	High level knowledge	27	22.50
	Total	**120**	**100.00**

"It was clearly visible that majority 49.17 per cent of the black pepper growers had medium level of knowledge on black pepper production technology, 28.33 per cent and 22.50 percent of the black pepper growers had low and high level of knowledge on black pepper production technology respectively". [**Ngadong (2017)]**

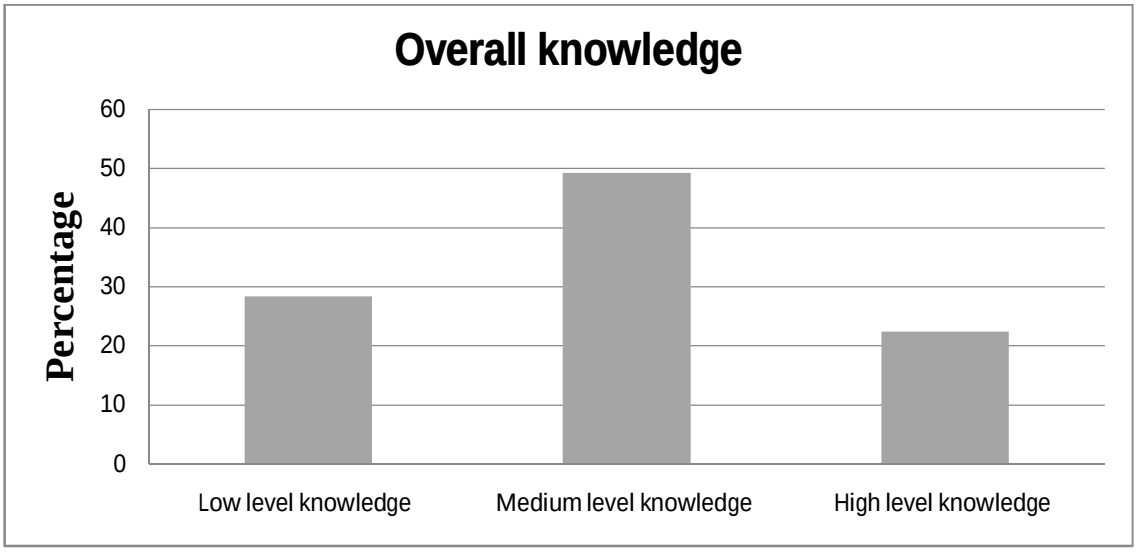

Fig. 1 Distribution of respondents based on their overall knowledge level.

Conclusion

It was conclude that majority 49.17 per cent of the black pepper growers had medium level of knowledge on black pepper production technology, 28.33 per cent and 22.50 percent of the black pepper growers had low and high level of knowledge on black pepper production technology respectively . knowledge level of majority of respondents was medium . Government should formulate appropriate extension strategy to increase the knowledge and adoption behaviour of growers towards pepper production technology.

Consent

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

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