



A STUDY ON THE CULTIVATORS' LEVEL OF SATISFACTION ON PROBLEMS IN PEPPER MARKETING IN IDUKKI DISTRICT OF KERALA

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Abstract

The high altitudes of Kerala are famous for their variety of spices. Pepper is one of the most important spices produced there. Pepper is the "king of spices". It is one of the most exotic and expensive spices; Indian pepper has a history as old as human civilization. South India and Sri Lanka are considered the origin of this spice. Pepper is often called saffron and vanilla as the third most expensive spice in the world. India offers all the favorable conditions of Pepper. The differentiated cultivation methods make Indian Pepper unique in the international market. There are different varieties and varieties of pepper. Pepper is one of the few agricultural products in India with a strong export orientation. In the light of the above and importance of rural economic development this study aims to learn about farmers' level of satisfaction in marketing of pepper.

Key Words: Cultivators' Opinion, Krishibhavans, Level Of Satisfaction, Marginal Cultivators And Spice Board.

Introduction

In India, Kerala is the main producer of black pepper. In Kerala, the living conditions of many small and medium-sized farming households are linked to fluctuations in pepper prices. Exports of black pepper from Kerala had a golden age until 1999. Attractive pepper prices until 1999-2000 brought great prosperity to Kerala farmers. In the last decade, however, the Pepper industry in Kerala has fundamentally changed. After 2000, black pepper prices began to drop significantly and black pepper cultivation in Kerala became unprofitable and unattractive. Cardamom growers also experience reduced profit margins due to price pressure. Black pepper and cardamom plantations, once considered a sign of economic prosperity, are no longer so.

One of the Kerala pepper belts, which was once the place of peppers in Idukki District, shows a dark image today. Unable to meet both goals and liquidate agricultural debts, many Kerala pepper producers, particularly those in Idukki District, committed suicide. Many pepper producers have begun to neglect pepper vines and limit additional investment in black pepper cultivation. On a global scale, Kerala pepper competes fiercely with other major producing countries. India's dominant position in the global pepper supply has declined and shrank to a lower level, losing our great legacy in the pepper and cardamom trade. Then, the marketing of pepper in Kerala faces a crisis; or more precisely, there is a pepper crisis.

Since the marketing of pepper is an important source of income for the country and a source of employment for a large part of the rural masses and Kerala plays a major role in the cultivation of black pepper, it is necessary to study the level of satisfaction of pepper cultivators' on Problems in pepper marketing in Idukki district in Kerala.

Review of Literature

Hena M (2016) concluded in her study that, if India able to increase the productivity by following mono-culture practice, using high yielding vines and proper fertilizer use etc, India would avail high quality pepper and need not depend on other countries and export could also be boosted. At the same time, our nation should concentrate on the quality aspect of pepper too as it the quality which determines the future of pepper products in the international market.

Pathak (2009) stated that the contribution of agriculture to a country's growth is the growth of products in the same sector and that agricultural development allows other sectors to develop through the goods produced in the national and international market.

Gandhi (2006) concluded that Indian studies have shown that improved market structures increase the volume of transactions in the market. Similarly, improved transportation infrastructure leads to a change in the crop model and agricultural productivity. In the emerging scenario, the main concern must shift from food security to productivity and diversification.

Scope of the Study

The study relates to the level of satisfaction on cultivators' opinion on the problems of marketing of pepper in Idukki District and covers the entire district. In this study the following variables are analysed namely Satisfaction of the Pepper marketing in Idukki District, Assistance from the Krishibhavans, Measures taken by the Spices Board for the promotion, Factor wise



opinion regarding the satisfaction of the pepper marketing and Satisfaction of the pepper marketing with respect to selected demographic variables. Interview schedule has been prepared and administered among the farmers who are involved in pepper cultivation and marketing. The study has good scope for pepper cultivation and marketing.

Methodology

The main objective of the study is to analyse the Cultivators' opinion on level of satisfaction in Pepper Marketing in Idukki District of Kerala. A sample of 662 respondents from all the four Taluks of Idukki district of Kerala was selected by applying Proportionate Stratified Random Sampling Technique. Data were collected by Interview Schedule, interpreted and presented in the following lines.

The opinion about Satisfaction of the pepper marketing in Idukki District observed over the factors of "Assistance from the 'Krishibhavans', Measures taken by the Spices Board for the promotion, Measures taken by the Government of Kerala for the promotion".

Null Hypothesis: There is no significant difference between the mean scores regarding satisfaction of the pepper marketing with respect to the selected demographic variables.

Opinion about Satisfaction of the Pepper Marketing In Idukki District

The Table No.1 describes the opinion about Satisfaction of the Pepper marketing in Idukki District observed over the factors of "Assistance from the 'Krishibhavans', Measures taken by the Spices Board for the promotion and Measures taken by the Government of Kerala for the promotion".

Table 1: Opinion about Satisfaction of the Pepper Marketing In Idukki District

Factors	Not satisfied		No opinion		Satisfied		Total
	N	%	N	%	N	%	
Assistance from the 'Krishibhavans'	54	8	201	30	407	61	662
Measures taken by the Spices Board for the promotion	56	8	204	31	402	61	662
Measures taken by the Government of Kerala for the promotion	49	7	208	31	405	61	662

Source: Computed data N: No. of Respondents

It is clear from the Table 1 that regarding the factor 'Assistance from the 'Krishibhavans'' 8% of the respondents are Not satisfied, 30% of the respondents have No opinion, 61% of the respondents are satisfied. For the factor 'Measures taken by the Spices Board for the promotion' 8% of the respondents are Not satisfied, 31% of the respondents are No opinion, 61% of the respondents are Satisfied. For the factor of 'Measures taken by the Government of Kerala for the promotion' 7% of the respondents are Not satisfied, 31% of the respondents have No opinion, 61% of the respondents are Satisfied.

Hence majority of the respondents are satisfied with the factor of "Assistance from the 'Krishibhavans', Measures taken by the Spices Board for the promotion, Measures taken by the Government of Kerala for the promotion".

Opinion Regarding the Assistance from the 'Krishibhavans'

The satisfaction regarding the assistance from 'Krishibhavans' was analyzed with respect to the selected demographic variables and the results are shown in Table 2.

Table 2: Opinion regarding the Assistance from the 'Krishibhavans'

Demographic variables		Assistance from the 'Krishibhavans'						Total
		Not satisfied		No opinion		Satisfied		
		N	%	N	%	N	%	
Taluk	Devikulam	6	7	27	33	48	59	81
	Udumbanchola	32	9	98	26	246	65	376



	Thodupuzha	13	8	49	32	91	59	153
	Peerumade	3	6	27	52	22	42	52
Nature of Cultivators	Main Cultivators	35	6	154	26	400	68	589
	Marginal Cultivators	19	26	47	64	7	10	73
Age in years	Up to 30	9	7	41	30	85	63	135
	31 - 40	17	10	61	34	100	56	178
	41 - 50	16	7	53	24	148	68	217
	Above 50	12	9	46	35	74	56	132
Education	Below SSLC	2	2	25	30	55	67	82
	SSLC	9	5	51	30	111	65	171
	PDC	13	8	59	35	95	57	167
	Degree	12	11	29	27	68	62	109
	Above Degree	18	14	37	28	78	59	133
Experience in spices cultivation	Below 5 years	13	9	50	34	84	57	147
	5 to 10 years	10	5	61	33	115	62	186
	10 to 20 years	14	7	51	26	131	67	196
	Above 20 years	17	13	39	29	77	58	133
Annual family income	Below Rs.250000	20	18	50	44	43	38	113
	Rs.250000 to Rs.500000	26	13	115	60	52	27	193
	Rs.500000 to Rs.1000,000	8	3	21	9	208	88	237
	Above Rs.10,00,000			15	13	104	87	119
Number of earning members in the family	One	24	18	61	47	45	35	130
	Two	19	11	100	57	55	32	174
	Three	9	4	23	11	185	85	217
	4 & above	2	1	17	12	122	87	141
Total area under spices cultivation	1 to 5 acres	20	13	55	35	84	53	159
	5 to 10 acres	23	7	122	35	204	58	349
	Above 10 acres	11	7	24	16	119	77	154
Total		54	8	201	30	407	61	662

Source: Computed data N: No. of Respondents

The Table 2 shows that 8% of the respondents are not satisfied, 30% of the respondents have No opinion, 61% of the respondents are satisfied. Thus, it can be interpreted that the highest percentage of the respondents are satisfied with the assistance from the 'Krishibhavans'.

In order to find the association between the Opinion regarding the Assistance from the 'Krishibhavans' and the Demographic variables of the respondent, chi-square test was used and result of the test is shown in Table 3.



Table 3: Assistance from the ‘Krishibhavans’ - Chi square Test

Demographic variables	Value	df	p value	Sig.
Taluk	15.35	6	0.018	Significant
Nature of Cultivators	99.33	2	0.001	Highly Significant
Age	8.47	6	0.205	Not Significant
Education	14.54	8	0.069	Not Significant
Experience in spices cultivation	9.50	6	0.147	Not Significant
Annual family income	232.71	6	0.001	Highly Significant
Number of earning members in the family	202.86	6	0.001	Highly Significant
Total area under spices cultivation	28.20	4	0.001	Highly Significant

It is noted from the Table 3 that the p value is less than 0.05 for Taluk, Nature of Cultivators, Annual family income, Number of earning members in the family, Total area under spices cultivation the results are No significant at 5 % level. From the analysis it is concluded that there is significant association was found between the opinion regarding the Assistance from the ‘Krishibhavans’ and these demographic variables of the respondent.

Opinion Regarding the Measures Taken By the Spices Board for the Promotion

The opinion regarding the measures taken by the Spices Board for the promotion with respect to the demographic variables was analyzed and result is shown in Table 4.

Table 4: Measures taken by the Spices Board for the promotion

Demographic variables		Measures taken by the Spices Board for the promotion						Total
		Not satisfied		No opinion		Satisfied		
		N	%	N	%	N	%	
Taluk	Devikulam	11	14	26	32	44	54	81
	Udumbanchola	23	6	109	29	244	65	376
	Thodupuzha	18	12	46	30	89	58	153
	Pee rumade	4	8	23	44	25	48	52
Nature of Cultivators	Main Cultivators	34	6	158	27	397	67	589
	Marginal Cultivators	22	30	46	63	5	7	73
Age in years	Up to 30	7	5	46	34	82	61	135
	31 - 40	12	7	67	38	99	56	178
	41 - 50	28	13	53	24	136	63	217
	Above 50	9	7	38	29	85	64	132
Education	Below SSLC	5	6	24	29	53	65	82
	SSLC	9	5	47	27	115	67	171
	PDC	21	13	56	34	90	54	167
	Degree	9	8	31	28	69	63	109
	Above Degree	12	9	46	35	75	56	133
Experience in spices	Below 5 years	13	9	56	38	78	53	147



cultivation	5 to 10 years	14	8	67	36	105	56	186
	10 to 20 years	17	9	44	22	135	69	196
	Above 20 years	12	9	37	28	84	63	133
Annual family income	Below Rs.250000	18	16	50	44	45	40	113
	Rs.250000 to Rs.500000	28	15	111	58	54	28	193
	Rs.500000 to Rs.1000,000	6	3	31	13	200	84	237
	Above Rs.10,00,000	4	3	12	10	103	87	119
Number of earning members in the family	One	18	14	66	51	46	35	130
	Two	26	15	91	52	57	33	174
	Three	10	5	31	14	176	81	217
	4 & above	2	1	16	11	123	87	141
Total area under spices cultivation	1 to 5 acres	18	11	54	34	87	55	159
	5 to 10 acres	28	8	119	34	202	58	349
	Above 10 acres	10	6	31	20	113	73	154
Total		56	8	204	31	402	61	662

Source: Computed data N: No. of Respondents

The Table 4 shows that 8% of the respondents are not satisfied, 31% of the respondents have no opinion, 61% of the respondents are satisfied. Thus, it can interpret that highest percentage of the respondents are satisfied.

In order to find the association between the Opinion regarding the Measures taken by the Spices Board for the promotion and the Demographic variables of the respondent chi-square test was used and result of the test is shown in Table.5.

Table 5: Measures Taken By The Spices Board For The Promotion

Demographic variables	Value	df	p value	Sig.
Taluk	13.63	6	0.034	Significant
Nature of Cultivators	112.40	2	0.001	Highly Significant
Age	15.22	6	0.019	Significant
Education	11.12	8	0.195	Not Significant
Experience in spices cultivation	13.54	6	0.035	Significant
Annual family income	198.48	6	0.001	Highly Significant
Number of earning members in the family	171.93	6	0.001	Highly Significant
Total area under spices cultivation	15.23	4	0.004	Highly Significant

From the analysis it is concluded that there is significant association was found between the opinion regarding the measures taken by the Spices Board for the promotion and these demographic variables of the respondent.

It is noted from the Table 5 that the p value is less than 0.05 for Taluk, Nature of Cultivators, Age, Experience in spices cultivation, Annual family income, Number of earning members in the family, Total area under spices cultivation the results are No significant at 5 % level.



Measures Taken By the Government of Kerala for the Promotion

The Measures taken by the Government of Kerala for the promotion with respect to the demographic variables was analyzed and result is shown in Table 6.

Table 6 : Measures Taken By The Government of Kerala For The Promotion

Demographic variables		Measures taken by the Government of Kerala for the promotion						Total
		Not satisfied		No opinion		Satisfied		
		N	%	N	%	N	%	
Taluk	Devikulam	8	10	26	32	47	58	81
	Udumbanchola	25	7	108	29	243	65	376
	Thodupuzha	13	8	48	31	92	60	153
	Peerumade	3	6	26	50	23	44	52
Nature of Cultivators	Main Cultivators	31	5	156	26	402	68	589
	Marginal Cultivators	18	25	52	71	3	4	73
Age in years	Up to 30	6	4	47	35	82	61	135
	31 - 40	19	11	58	33	101	57	178
	41 - 50	17	8	57	26	143	66	217
	Above 50	7	5	46	35	79	60	132
Education	Below SSLC	4	5	26	32	52	63	82
	SSLC	6	4	55	32	110	64	171
	PDC	17	10	55	33	95	57	167
	Degree	10	9	31	28	68	62	109
	Above Degree	12	9	41	31	80	60	133
Experience in spices cultivation	Below 5 years	8	5	58	39	81	55	147
	5 to 10 years	12	6	67	36	107	58	186
	10 to 20 years	15	8	48	24	133	68	196
	Above 20 years	14	11	35	26	84	63	133
Annual family income	Below Rs.250000	16	14	51	45	46	41	113
	Rs.250000 to Rs.500000	25	13	116	60	52	27	193
	Rs.500000 to Rs.1000,000	7	3	25	11	205	86	237
	Above Rs.10,00,000	1	1	16	13	102	86	119
Number of earning members in the family	One	20	15	63	48	47	36	130
	Two	16	9	104	60	54	31	174
	Three	13	6	20	9	184	85	217
	4 & above			21	15	120	85	141
Total area under spices cultivation	1 to 5 acres	17	11	58	36	84	53	159
	5 to 10 acres	20	6	130	37	199	57	349
	Above 10 acres	12	8	20	13	122	79	154
Total		49	7	208	31	405	61	662

Source: Computed data N: No. of Respondents



The Table 6 shows that 7% of the respondents are not satisfied, 31% of the respondents have no opinion, 61% of the respondents are satisfied. Thus, it can interpret that highest percentage of the respondents are satisfied.

In order to find the association between the Opinion regarding the Measures taken by the Government of Kerala for the promotion and the Demographic variables of the respondent chi-square test was used and result of the test is shown in Table.7.

Table 7: Measures Taken By the Government of Kerala for the Promotion - Chi Square Test

Demographic variables	Value	df	p value	Sig.
Taluk	11.32	6	0.079	Not Significant
Nature of Cultivators	118.08	2	0.001	Highly Significant
Age	9.32	6	0.157	Not Significant
Education	8.26	8	0.409	Not Significant
Experience in spices cultivation	13.94	6	0.030	Significant
Annual family income	211.92	6	0.001	Highly Significant
Number of earning members in the family	197.92	6	0.001	Highly Significant
Total area under spices cultivation	36.39	4	0.001	Highly Significant

From the analysis it is concluded that there is significant association was found between the opinion regarding the Measures taken by the Government of Kerala for the promotion and these demographic variables of the respondent. It is noted from the Table 7 that the p value is less than 0.05 for Nature of Cultivators, Experience in spices cultivation, Annual family income, Number of earning members in the family, Total area under spices cultivation the results are No significant at 5 % level.

Test for Mean Score Analysis Towards Satisfaction of The Pepper Marketing (Average Score Analysis)

The significant difference between the mean scores regarding the Satisfaction of the Pepper marketing using the inferential statistics of Analysis of variance (ANOVA) and the Normal test after verifying the normality assumption by Q-Q Plot technique. The test for mean score analysis of the Analysis of Variance (ANOVA) test procedure is used to compares mean scores of more than two groups. The Table displays the descriptive statistics of the sample size, mean, standard deviation and Mean %. The Table also shows that the F & Z statistics, calculated as the ratio of the variances. The column p value shows the probability value from the F & normal distribution respectively. Once we have determined that differences exist among the means, post hoc range tests can determine which means differ. Duncan's tests identified the homogeneous subsets of means that are not different from each other and the results were also given in the Table by showing the homogeneity subsets as a, b, c within which the groups fall in.

Factor Wise Opinion Regarding the Satisfaction of the Pepper Marketing

An attempt has been made to study the opinion of satisfaction of the Pepper marketing. After converting the qualitative information of the opinion into a quantitative one the average score were obtained from the respondents on various factors like 'Assistance from the 'Krishibhavans', Measures taken by the Spice Board for the promotion, Measures taken by the Government of Kerala for the promotion, Overall satisfaction' and obtained results are and presented in Table 8.

Table 8: Factor Wise Opinion Regarding the Satisfaction of the Pepper Marketing

Factor	N	Min	Max	Mean	SD	Mean %
Assistance from the 'Krishibhavans'	662	0	2	1.53	0.64	76.66
Measures taken by the Pepper Board for the promotion	662	0	2	1.52	0.65	76.13
Measures taken by the Government of Kerala for the promotion	662	0	2	1.54	0.63	76.89
Overall satisfaction	662	0	6	4.59	1.64	76.56

Source: Computed data N: No. of Respondents



Factor wise distribution of mean, Standard Deviation and mean percentage of Satisfaction of the Pepper marketing shows that among 4 factors, the highest mean % score (1.54 ± 0.63) which is 76.89% is obtained for the factor “Measures taken by the Government of Kerala for the promotion” whereas, the lowest mean % score (1.52 ± 0.65) which is 76.13% was obtained for ‘Measures taken by the Spices Board for the promotion’. The mean score on ‘Assistance from the ‘Krishibhavans’ was (1.53 ± 0.64) which is 76.66%, the mean score on ‘Overall satisfaction’ was (4.59 ± 1.64) which is 76.56%.

Average Score Analysis Regarding Satisfaction of The Pepper Marketing With Respect To Selected Demographic Variables Such As Talk Wise And Nature of Cultivators Wise.

Null Hypothesis: There is no significant difference between the mean scores regarding Satisfaction of the Pepper marketing with respect to the selected demographic variables.

Taluk Wise Opinion Regarding the Satisfaction of the Pepper Marketing

To study the effect of Taluk, the distributions of satisfaction of the Pepper marketing according to Taluk the opinion regarding the respondents regarding the Satisfaction of the Pepper marketing are shown in the following Table 9.

Table 9: Taluk Wise Opinion Regarding the Satisfaction of the Pepper Marketing

Factors	Taluk								ANOVA	P value
	Devikulam		Udumbanchola		Thodupuzha		Peerumade			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Assistance from the 'Krishibhavans'	1.52	0.63	1.57	0.65	1.51	0.65	1.37	0.60	1.66	0.174
Measures taken by the Spice Board for the promotion	1.41	0.72	1.59	0.60	1.46	0.70	1.40	0.63	3.15	0.024*
Measures taken by the Government of Kerala for the promotion	1.48	0.67	1.58	0.61	1.52	0.65	1.38	0.60	1.86	0.135
Overall satisfaction	4.41	1.83	4.74	1.58	4.49	1.69	4.15	1.47	2.79	0.040*

* Significant at 5 %; ** Significant at 1 %

It could be noted from the Table 9 that the Opinion regarding ‘Assistance from the ‘Krishibhavans’ shows with respect to the Taluk of Devikulam the mean score was (1.52 ± 0.63), with respect to the Taluk of Udumbanchola the mean score was (1.57 ± 0.65), with respect to the Taluk of Thodupuzha the mean score was (1.51 ± 0.65) and with respect to the Taluk of Peerumade the mean score was (1.37 ± 0.60).

The opinion about ‘Measures taken by the Pepper Board for the promotion’ shows with respect to the Taluk of Devikulam the mean score was (1.41 ± 0.72), with respect to the Taluk of Udumbanchola the mean score was (1.59 ± 0.60), with respect to the Taluk of Thodupuzha the mean score was (1.46 ± 0.70) and with respect to the Taluk of Peerumade the mean score was (1.40 ± 0.63).

The opinion about ‘Measures taken by the Government of Kerala for the promotion’ shows with respect to the Taluk of Devikulam the mean score was (1.48 ± 0.67), with respect to the Taluk of Udumbanchola the mean score was (1.58 ± 0.61), with respect to the Taluk of Thodupuzha the mean score was (1.52 ± 0.65) and with respect to the Taluk of Peerumade the mean score was (1.38 ± 0.60).

The opinion about ‘Overall satisfaction’ shows with respect to the Taluk of Devikulam the mean score was (4.41 ± 1.83), with respect to the Taluk of Udumbanchola the mean score was (4.74 ± 1.58), with respect to the Taluk of Thodupuzha the mean score was (4.49 ± 1.69) and with respect to the Taluk of Peerumade the mean score was (4.15 ± 1.47).



Thus, it is inferred from the above analysis that the maximum satisfaction regarding Assistance from the 'Krishibhavans' was found among Taluk of Udumbanchola, about Measures taken by Spice Board for the promotion it was found among Udumbanchola, about Measures taken by the Government of Kerala for the promotion it was found among Udumbanchola, about Overall satisfaction it was found among Udumbanchola.

Further to test the significant difference between the mean score among the respondents with respect Taluk the ANOVA test is used and the result is also shown in Table 9. Since the p value is greater than 0.05 regarding Assistance from the 'Krishibhavans', Measures taken by the Pepper Board for the promotion, Measures taken by the Government of Kerala for the promotion, Overall satisfaction and hence there is no significant difference in the mean scores was found with respect to Taluk regarding these factors.

Nature of Cultivators wise Opinion about the Satisfaction of the Pepper Marketing

To study the effect of Nature of Cultivators, the distributions of Satisfaction of the Pepper marketing according to Nature of Cultivators the opinion about the Satisfaction of the Pepper marketing are shown in the following Table 10.

Table 10: Nature of Cultivators wise opinion about the Satisfaction of the Pepper marketing

Factors	Nature of Cultivators	N	Mean	SD	Z	p value
Assistance from the 'Krishibhavans'	Main Cultivators	589	1.62	0.60	10.64	0.001**
	Marginal Cultivators	73	0.84	0.58		
Measures taken by the Pepper Board for the promotion	Main Cultivators	589	1.62	0.59	11.58	0.001**
	Marginal Cultivators	73	0.77	0.57		
Measures taken by the Government of Kerala for the promotion	Main Cultivators	589	1.63	0.58	11.73	0.001**
	Marginal Cultivators	73	0.79	0.50		
Overall satisfaction	Main Cultivators	589	4.87	1.46	13.79	0.001**
	Marginal Cultivators	73	2.40	1.30		

* Significant at 5 %; ** Significant at 1 %

N: No. of Respondents

It could be noted from the Table 10 that the opinion about 'Assistance from the 'Krishibhavans'' shows among respondents of Main Cultivators the mean score was (1.62 ± 0.60) and among the respondents from Marginal Cultivators the mean score was (0.84 ± 0.58) .

The opinion about 'Measures taken by the Spice Board for the promotion' shows among respondents of Main Cultivators the mean score was (1.62 ± 0.59) and among the respondents from Marginal Cultivators the mean score was (0.77 ± 0.57) . The opinion about 'Measures taken by the Government of Kerala for the promotion' shows among respondents of Main Cultivators the mean score was (1.63 ± 0.58) and among the respondents from Marginal Cultivators the mean score was (0.79 ± 0.50) .

The opinion about 'Overall satisfaction' shows among respondents of Main Cultivators the mean score was (4.87 ± 1.46) and among the respondents from Marginal Cultivators the mean score was (2.40 ± 1.30) .

Thus, it is inferred from the above analysis that the opinion about Assistance from the 'Krishibhavans' was found maximum among the Main Cultivators, about Measures taken by the Spice Board for the promotion it was found among Main Cultivators, about Measures taken by the Government of Kerala for the promotion it was found among Main Cultivators, about Overall satisfaction it was found among Main Cultivators.



Further to test the significant difference between the mean score among the respondents with respect Nature of Cultivators the Z test is used and the result is also shown in Table 10. Since the p value is less than 0.01 regarding Production/Cultivation Problem, Measures taken by the Spice Board for the promotion, Measures taken by the Government of Kerala for the promotion, Overall satisfaction and hence there is highly significant difference in the mean scores was found with respect to Nature of Cultivators regarding these factors.

Findings

Majority of the cultivators are Satisfied with the factor of “Assistance from the ‘Krishibhavans’, Measures taken by the Pepper Board for the promotion, Measures taken by the Government of Kerala for the promotion”. There is significant association was found between the opinion regarding the Assistance from the ‘Krishibhavans’ and these demographic variables of the respondent and hence it can be interpreted that the highest percentage of the respondents are Satisfied regarding the assistance from the ‘Krishibhavans’. There is significant association was found between the opinion regarding the Measures taken by the Spice Board for the promotion and these demographic variables of the respondent and thus, it can interpreted highest percentage of the respondents are Satisfied regarding the Measures taken by the Spice Board. There is significant association was found between the opinion regarding the Measures taken by the Government of Kerala for the promotion and these demographic variables of the respondent. Therefore, it can be interpreted as the highest percentage of respondents is satisfied with the measures that the government of Kerala has adopted for promotion. There is no significant difference in the mean scores was found with respect to Taluk towards the maximum satisfaction regarding Assistance from the ‘Krishibhavans’. The opinion about Assistance from the ‘Krishibhavans’, Measures taken by the Spice Board, about Measures taken by the Government of Kerala for the promotion about overall satisfaction it was found maximum among the Main Cultivators.

Suggestions

It is necessary to create a single agency with the necessary experts and infrastructure to monitor and supervise research and development of pepper for export. The Council of Spices must continue to focus on the intelligence of the international market for the development of marketing strategies. Allotments of funds must be made to carry out studies, surveys and timely contacts with agents / contacts in producing countries. Subsidies and financial support for the promotion of the individual business market may have to be eliminated in due course. The support can be extended as a function of time. A new initiative should be considered and then formed a consultative committee of global pepper producers for exchange of views and for the formation of an international pepper community. This will bring producers together, as in the case of the international pepper community. Market promotion exercises, such as participation in international food fairs, trade missions, cooking demonstrations, cookbooks, should therefore be considered important and should continue.

References

1. Consultative Conferences on APMC Model Rules - January 18, 2008, New Delhi, Speech of Dr. P. K. Mishra, Secretary to Government of India, Department of Agriculture and Cooperation.
2. Dwivedy, N., “Challenges Faaced by the Agriculture Sector in Developing Countries with special reference to India”, International Journal of Rural Studies, 2011, 18(2), pp.2–7.
4. Gandhi, V. P., “Rappoteur’s Report on Rural Infrastructure and Growth”, Indian Journal of Agricultural Economics, 2006, Vol. 61(3), pp. 582- 600
5. Hena. M, “Export Marketing of Pepper: Opportunities and Constraints”, Asia Pacific Journal of Research, 2016, Vol: I. Iss. XXXVIII, PP.119 -123.
6. Nair N.J, “Kerala Agriculture Faces Crises”, The Hindu, June 17, 2013.
7. Niti Ayog, “Report of the Taskforce on Agricultural Development in Kerala”, 2015.
8. Pathak, N., “Contribution of Agriculture to the Development of Indian Economy”, The Journal of Indian Management and Strategy, 2009, Vol. 14(1), pp. 52-57.
9. Prakash, Farm Crisis in Idukki, 2006.
10. Senthil Kumar P and Vadivel V, "Prospects of pepper in India", Spice India, May 2000
11. Sharma G.C. and Bajaj B.K," Pepper Agricultural Technology Information Centre, Indian Institute of Spices Research, Calicut, Kerala, October 2001.
12. Sharma, Y.R, “Can we regain our past glory in black pepper”, Spice India, July, 2006.
13. Srinivasan, G, “Multilateralism at cross roads”, The Hindu Business Line, 19th December, 2006.
14. Tamil Selvan, M, Ravindran T.C and Sivakumaran K, "Marketing of Spices in India, Spice India", December 1999.
15. Thomas K.G, Elizabeth and Peter K.V, "A brief review of Development of Spices in India during post Independent Era, Spice India, Nov. 1998.
16. <http://agmarknet.nic.in/amrscheme/amr1.htm>.