

Knowledge and attitude of adopters and non adopters towards organic farming practices in coffee cultivation of Dindigul district in Tamil Nadu

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Abstract: Coffee is one of the world's most popular beverages. It is traditionally grown in the Western Ghats spread over Karnataka, Kerala and Tamil Nadu. The comparative survey study on knowledge and attitude of coffee growers towards organic farming practices was carried out in Dindigul district of Tamil Nadu covering one block and eight purposively selected villages and 80+40 randomly selected adopters and non adopters to determine the knowledge and attitude of the respondents. The findings of the study revealed that the 48.75 per cent of adopters had medium level of knowledge on organic farming practices of coffee while 50.00 per cent of non-adopters had the low level of knowledge. Regarding to attitude level 55 per cent of adopters had high level of favourable attitude and 47.5 per cent of non-adopters had low unfavourable attitude mean while majority of non-adopters 52.5percent had medium and high level of favourable attitude towards organic farming practices of coffee. The chi-square value reflects that there were significant association between adopters and non-adopters.

Key words: Coffee, Knowledge, Attitude, Organic farming practices.

1. INTRODUCTION:

Coffee is one of the world's most popular beverages. Some claim it is the most widely consumed liquid in the world aside from water. Coffee is more than a beverage, however. It is a memory, anticipation, a lifetime of consoling moments of modest pleasure woven into our lives. In India, coffee is traditionally grown in the Western Ghats spread over Karnataka, Kerala and Tamil Nadu. Indian coffee has a unique historic flavour too. India is the only country that grows all of its coffee under shade. Robusta which is highly preferred for its good blending quality, Arabica Coffee from India is also well received in the international market. India's coffee growing regions have diverse climatic conditions, which are well suited for cultivation of different varieties of coffee. Some regions with high elevations are ideally suited for growing Arabica of mild quality while those with warm humid conditions are best suited for Robusta. Coffee production in India stood at 348,000 metric tons (MT) in 2015-16. Robusta variety accounted for 244,500 MT (70.3 per cent) of this production, while Arabica accounted for 103,500 MT (29.7 per cent). The post-blossom estimate for 2016-17 is 320,000 MT (100,000 MT of Arabica and 220,000 MT of Robusta) India has emerged as the seventh largest coffee producer globally; after Brazil, Vietnam, Columbia, Indonesia, Ethiopia and Honduras. In Tamil Nadu, the final production of 2016-17 is placed at 16,335 MT which is a marginal decline of 225 MT (-1.36%) over the post monsoon estimate (16,560 MT) of 2016-17.

2. MATERIALS AND METHODS:

The present investigation was carried out in one block and eight purposively selected villages of Dindigul district, Tamil Nadu. The data was collected with the structured interview schedule from randomly selected 120 farmers who were 80 adopters and 40 non adopters. The level of knowledge and attitude of the adopters and non adopters were classified into three categories viz, low, medium and high on the basis of mean +S.D. Chi-square analysis were used to study the knowledge and attitude of organic farming practices of coffee.

3. RESULT:

Distribution of Knowledge: The questions were asked to the adopters and non-adopters to determine the level of knowledge about the organic farming practices of coffee growers. The distribution of adopters and non-adopters according to their level of knowledge are reported in table 1 & 2. Table 1 and 2 revealed that knowledge of adopters and non-adopters of organic farming practices of coffee cultivation. Most of the adopters have the high level of knowledge as compared to non-adopters, 83.75 per cent of adopters had full knowledge about FYM followed by 53.75 per cent of adopters had full knowledge about green manure application. For non-adopters 42.50 per cent had full knowledge about FYM followed by 17.50 per cent had full knowledge about green manure application.

Table: 1 Distribution of knowledge of adopters on organic farming practices of coffee cultivation.

S.NO	STATEMENTS	FC	PC	NC
1	Recommended coffee variety	49(61.20)	19(23.70)	12(15.00)
2	Suitable soil	64(80.00)	16(20.00)	0 (0.00)
3	Suitable month	52(65.00)	17(21.20)	11(13.70)
4	Type of seed	64(80.00)	16(20.00)	0 (0.00)
5	Seed rate	58(72.50)	9(11.25)	13(16.20)
6	Compost for nursery bed	49(61.20)	9(11.25)	22(27.50)
7	Spacing	51(63.70)	12(15.00)	17(21.20)
8	Green manure	43(53.75)	13(16.25)	24(30.00)
9	FYM	67(83.75)	13(16.25)	0 (0.00)
10	Important pest and diseases	60(75.00)	8(10.00)	12(15.00)
11	Cultural practices	61(76.20)	7(8.75.00)	13(16.20)
12	Biological pest management	48(60.00)	17(21.20)	15(18.70)
13	Yield	74 (92.50)	6(7.50)	0(0.00)
14	Post harvest management	54(67.50)	11(13.70)	15(18.70)

Table 2: Distribution of knowledge of non-adopters about organic farming practices of coffee

S.NO	STATEMENTS	FC	PC	NC
1	Recommended coffee variety	12(30.00)	8(20.00)	20(50.00)
2	Suitable soil	14(35.00)	12(30.00)	14(35.00)
3	Suitable month	13(32.50)	12(30.00)	15(37.50)
4	Type of seed	16(40.00)	9(22.50)	15(37.50)
5	Seed rate	11(27.50)	14(35.00)	15(37.50)
6	Compost for nursery bed	11(27.50)	14(35.00)	15(37.50)
7	Spacing	9(22.50)	13(32.50)	18(45.00)
8	Green manure	7(17.50)	13(32.50)	20(50.00)
9	FYM	17(42.50)	12(30.00)	11(27.50)
10	Important pest and diseases	15(37.50)	12(30.00)	13(32.50)
11	Cultural practices	12(30.00)	13(32.50)	15(37.50)
12	Biological pest management	8(20.00)	15(37.50)	17(42.50)
13	Yield	17(42.50)	9 (22.50)	14(35.00)
14	Post harvest management	13(32.50)	12(30.00)	15(37.50)

FC-Fully correct, PC-partially correct, NC- non correct

Level of knowledge:

Table: 3 Level of knowledge of adopters and non-adopter

Level of knowledge	Category of respondents			
	Adopters		Non-adopters	
	Frequency	Percentage	Frequency	Percentage
Low (mean-0.425 SD)	9	11.25	20	50.00
Middle (mean ± 0.425 SD)	39	48.75	17	42.50
High (mean + 0.425 SD)	32	40.00	3	7.50
Total	80	100.00	40	100.00

Table 3 revealed that the overall knowledge of adopters and non-adopters of organic farming practices of coffee, 48.75 per cent of adopters had medium level of knowledge followed by 11.25 per cent and 40.00 per cent had low and high level of knowledge and 42.5 per cent had medium level of knowledge followed by 50 per cent and 7.5 per cent of non-adopters had low and high level of knowledge.

Distribution of Attitude: The statements were asked to the adopters and non-adopters to determine the level of attitude about the organic farming practices of coffee growers. The distribution of adopters and non-adopters according to their level of attitude are reported in table 4 & 5. The results in the table 4 and 5 revealed that the attitude of adopters and non-adopters of organic farming practices, the adopters had more favourable attitude towards the organic farming practices compare to non-adopters.

Table: 4 Distribution of attitude levels of adopters about organic farming practices of coffee

SL.No	Statements	SA	A	UD	DA	SDA
1	Organic farming practices preserve the biodiversity.	48 (60.00)	19 (23.75)	13 (16.25)	0 (00.00)	0 (00.00)
2	Organic farming practices extend the rural employments.	46 (57.5)	20 (25.00)	11 (13.75)	3 (3.75)	0 (00.00)
3	Organic farming practices prevent the rural migration.	49 (61.25)	17 (21.25)	13 (16.25)	3 (3.75)	0 (00.00)
4	Organic farming practices provide household nutrition.	53 (66.25)	19 (23.75)	8 (10.00)	0 (00.00)	0 (00.00)
5	Local food security not sustained under organic farming practices.	0 (00.00)	0 (00.00)	7 (8.75)	19 (23.75)	54 (67.5)
6	An organic farming practice does not overcome the pollution.	0 (00.00)	0 (00.00)	5 (6.25)	19 (23.75)	56 (70.00)
7	Intervention of technologies is not easy in organic farming practices.	2 (2.50)	4 (5.00)	8 (10.00)	15 (18.75)	51 (63.75)
8	Quality of product is not in organic farming practices.	0 (00.00)	0 (00.00)	8 (10.00)	14 (17.50)	58 (72.5)

Table: 5 Distribution of attitude level of non-adopters about organic farming practices of coffee

SL.No	Statements	SA	A	UD	DA	SDA
1	Organic farming practices preserve the biodiversity.	0 (0.00)	0 (00.00)	9 (22.50)	12 (30.00)	19 (47.50)
2	Organic farming practices extend the rural employments.	0 (0.00)	0 (00.00)	5 (12.50)	15 (37.5)	20 (50.00)
3	Organic farming practices prevent the rural migration.	0 (0.00)	2 (5.00)	6 (15.00)	10 (25.00)	17 (42.50)
4	Organic farming practices provide household nutrition.	2 (5.00)	3 (7.50)	8 (20.00)	10 (25.00)	17 (42.50)
9	Local food security not sustained under organic farming practices.	19 (47.50)	13 (32.50)	8 (20.00)	0 (00.00)	0 (00.00)
10	An organic farming practice does not overcome the pollution.	12 (30.00)	14 (35.00)	8 (20.00)	4 (10.00)	2 (5.00)
11	Intervention of technologies is not easy in organic farming practices.	21 (52.50)	13 (32.50)	6 (15.00)	0 (00.00)	0 (00.00)
12	Quality of product is not in organic farming practices.	14 (35.00)	12 (30.00)	8 (20.00)	4 (10.00)	2 (5.00)

SA-Strongly agree, A- Agree, UD- Under decision, SDA- Strongly disagree, DA-Disagree

Level of attitude:

Table 6 revealed that overall attitude of adopters and non-adopters, 55 per cent of adopters had medium level of favourable attitude followed by 12.5 and 32.5 per cent adopters had low and high level of favourable attitude towards organic farming practices of coffee and 47.5 per cent of non -adopters had low level of favourable attitude followed by 52.5 per cent of non-adopters had medium and high level of favourable attitude towards organic farming practices of coffee.

Table: 6 Level of attitude of adopters and non adopters

Level of Attitude	Category of respondents			
	Adopters		Non adopters	
	Frequency	Percentage	Frequency	Percentage
Low (mean-0.425 SD)	10	12.50	19	47.50
Middle (mean ± 0.425 SD)	26	32.50	17	42.50
High (mean + 0.425 SD)	44	55.00	4	10.00
Total	80	100.00	40	100.00

Table: 7 Association of knowledge and attitude levels of adopters and non-adopters

SL.NO	Category	Chi-square value	Degrees of freedom
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1	Knowledge	26.3834**	2
2	Attitude	19.5721**	2

** Significant at 0.05 level of probability

Table 7 revealed that the association of knowledge and attitude level of adopters and non-adopters of organic farming practices, the table value of χ^2 for two degrees of freedom at 5 per cent level of significant is 5.991; the calculated value of χ^2 is much higher than the tabulated value, hence there was significant association between the knowledge and attitude level of adopters and non adopters.

4. CONCLUSION:

The study revealed that the adopters had more knowledge level as compared to non-adopters, because of the fact they had higher social participation and extension contact. Regarding to attitude level 55 per cent of adopters had high level of favourable attitude and 47.5 per cent of non-adopters had low unfavourable attitude mean while majority of non-adopters 52.5 percent had medium and high level of favourable attitude towards organic farming practices of coffee. The table chi-square value shows that the significant association between the knowledge and attitude level of adopters and at the level of 0.05 per cent probability; hence the null hypothesis was not accepted. From the above results shows that the adopters had high level of knowledge had attitude, in case of non adopters 52.5 percent had medium and high level of favourable attitude, for those 52.5 per cent people have to motive by the training programmes for the further level of knowledge and attitude about organic farming practices. The main importance of organic farming practices is without depleting natural resources and environment. Organic manures improve physical, chemical and biological properties of the soil. Addition of organic manure improves structure, aeration, water holding capacity of soils.

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