

SOCIO-ECONOMIC ISSUES OF LITCHI CULTIVATION IN COORG REGION OF KARNATAKA

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Abstract: Litchi one of the important sub-tropical fruits in India. Considering the time of flowering of Litchi in Coorg region of Karnataka, there is a high market demand for these fruits. Hence, a questionnaire survey was conducted to identify the socio-economic issues in Litchi cultivation among the Litchi growers (30) from Coorg region. The socio-economic issues in Litchi cultivation, motivational factors for Litchi cultivation, training needs of Litchi growers and extension activities preferred by Litchi growers etc. were identified through this survey. The data was analyzed through descriptive statistics. This paper presents the results of the survey, which may be useful for the stakeholders of Litchi cultivation.

Keywords: Socio-economic issues, Litchi, Coorg, Karnataka.

Introduction

Litchi (*Litchi Chinesis Sonn.* Sapindaceae), a sub-tropical plant, is cultivated in India in about 84 thousand hectares with a production of 5.85 lakh MT. India ranks second in the world in Litchi production after China. Bihar, West Bengal, Uttar Pradesh, Jharkhand, Uttarakhand are the major Litchi growing states of the country. In the northern India, Litchi fruits mature in the month of May and June, whereas, litchi matures in the month of November and December in non-traditional Litchi region of the Western Ghats ^[1]. Litchi is grown as home stead trees or as isolated trees in coffee gardens in parts of Coorg and Waynad. The trees produce fruits in the month of November and December. That time Litchi fruits are not available in any part of the world. Being off season, there is a high market demand for the fruits. The Indian as well as world markets for Litchi are fast expanding, which opens up further scope of this crop in future. This necessitates to study the socio-economic issues of Litchi cultivation.

A survey was conducted with a view to identify the socio-economic issues in Litchi cultivation among the Litchi growers (30) from Coorg region at Central Horticultural Experiment Station (CHES), Chettahalli of ICAR-Indian Institute of Horticultural Research (IIHR), Bengaluru in December, 2015. This survey was conducted among the Litchi farmers,

*Received June 10, 2016 * Published Aug 2, 2016 * www.ijset.net*

when they participated in 'Awareness Programme on Off-Season Litchi cultivation in South India'. These growers represented Coorg and surrounding areas. This paper presents the results of such survey pertaining to issues involved in Litchi in Coorg region and the training needs of Litchi growers.

Materials and Methods

CHES, ICAR-IIHR organized an awareness programme on off-season Litchi Cultivation in South India on December 10, 2015 at Chettahalli, Kodagu district, Karnataka. During the programme, a large number of litchi growers from in and around Coorg region participated. The participants were sensitized about various aspects like Litchi cultivation scenario in the country, varietal choices for farmers, scope and potential of off-season litchi cultivation in Western ghats, performance of litchi cultivars in western ghats, potential of litchi cultivation in Western ghats and success stories of Litchi growers followed by field visits to demonstration plots of Litchi.

In order to assess the various socio-economic issues in Litchi cultivation and the training needs, a questionnaire was constructed and administered among the participants of the awareness programme. The questionnaire had four different parts. First part was on issues involved in litchi cultivation, which had 10 items, towards which responses were obtained against a five-point continuum namely very severe (VS), severe (S), average (A), not severe (NS) and no problem (NP) with a score of 5,4,3,2 and 1 respectively.

The second part pertains to motivational factors encouraging to grow Litchi in Coorg region, having seven items with responses obtained against a three-point continuum namely agree (A), undecided (U) and disagree (D) with a score of 3,2 and 1 respectively. Third part was on training needs involved in litchi cultivation, which had 12 items, the responses were obtained against a five-point continuum namely very important (VI), import (I), average (A), least important (LI) and no important (NI) with a score of 5,4,3,2 and 1 respectively.

Last part pertains to type of extension activities need in effective dissemination of knowledge in Litchi cultivation, which had 8 items, the responses were obtained against a two-point continuum namely yes and no with a score of 2 and 1 respectively. The response of the participants was analyzed using descriptive statistics.

Results and Discussion

The average scores of socio-economic issues of Litchi cultivation has been given in Table 1 and the overall average was 3.17. Considering the overall average, problems due to bats, birds, insect pests, irregular flowering, lack of quality planting material availability, lack of

standard package of practices, diseases were the items that had average score above the overall average. Hence, these are the issues that are to be taken care, while developing a strategy to address issues in Litchi cultivation.

Table 1. Socio-economic issues in Litchi cultivation (N= 30)

S. No.	Issues	VS	S	A	LS	NP	Score
		%	%	%	%	%	
1.	Bats	80	27	7	7	7	4.13
2.	Birds problem	65	37	13	0	7	4.10
3.	Insect pests	40	30	30	7	7	3.63
4.	Irregular flowering	25	40	20	13	10	3.40
5.	Lack of quality planting material availability	20	40	27	7	13	3.33
6.	Lack of standard package of practices	20	40	27	7	13	3.33
7.	Disease problem	20	33	23	20	10	3.20
8.	Micronutrient deficiency	20	27	10	10	40	2.63
9.	Marketing problem	10	10	10	30	43	2.07
10.	Harvesting problem	10	3	10	27	53	1.83
Overall average =3.17							

VS-Very severe; S-Severe; A-Average; LS-Lease severe; NP-No problem

A glance at Table 2 informs that profitable venture, easy management, favorable climate/ weather conditions, market demand, skilled manpower availability, comparatively less pest and disease incidence and traditional crops were the items against which the delegates recorded their motivational factors of Litchi cultivation in Coorg district (Table 2). The average score of the motivational factors of each item has been given in Table 2 and the overall average was 2.41. Considering the overall average, profitable venture, easy management, favorable climate/ weather conditions, market demand, skilled manpower availability were the items that had average score above the overall average. Hence, these are the factors are to be taken as strength in promoting the Litchi cultivation in the Coorg region.

Table 2. Motivational factors of Litchi cultivation in Coorg District (N= 30)

S. No.	Issues	A	U	D	Score
		%	%	%	
1.	Profitable venture	67	33	0	4.13
2.	Favourable climate/ weather conditions	80	0	20	4.10
3.	Market demand	60	40	0	3.63
4.	Easy management	57	43	0	3.40
5.	Skilled manpower availability	57	30	13	3.33
6.	Less pest and disease incidence	33	57	10	3.33
7.	Being a traditional crop	20	40	40	3.20
Overall average =2.41					

A-Agree; U-Undecided; D-Disagree

Propagation of Litchi plants, information about improved varieties/ superior cultivars, fruit cracking management, canopy management, pollination management, integrated nutrient management, integrated pest management, integrated disease management, guidance on exports, value addition, handling, storage and packing, fruit cracking management, rejuvenation of old orchards, pollination management and canopy management were the items against which the delegates recorded their training needs (Table 3). The average score of the training needs of each item has been given in Table 3 and the overall average was 4.02. Considering the overall average, it was found that information about new and improved varieties/ superior cultivars, integrated pest management, propagation of Litchi plants, integrated nutrient management, integrated disease management, guidance on exports and value addition were the items that had average score above the overall average. Hence, these are the topics that are to be given preference, while designing the course module on improved production practices to the growers of Coorg region.

Table 3. Training needs in Litchi (N= 30)

S.No.	Training needs	VI	I	A	LI	NI	Score
		%	%	%	%	%	
1.	Improved varieties/ superior cultivars	73	10	17	0	0	4.57
2.	Integrated pest management	53	47	0	0	0	4.53
3.	Propagation of Litchi plants	80	7	0	0	13	4.40
4.	Integrated nutrient management	40	60	0	0	0	4.40
5.	Integrated disease management	30	70	0	0	0	4.30
6.	Guidance on exports	33	47	20	0	0	4.13
7.	Value addition	30	43	27	0	0	4.03
8.	Handling, storage and packing	27	37	23	0	13	3.63
9.	Fruit cracking management	20	40	20	20	0	3.60
10.	Rejuvenation of old orchards	20	50	0	30	0	3.60
11.	Pollination management	30	30	20	10	10	3.60
12.	Canopy management	40	20	13	7	20	3.53
Overall average =4.02							

VI-Very important; I-Important; A- Average; LI-Least important

A perusal at Table 4 informs that on-campus training, off-campus training, frontline demonstrations, on-farm trails, diagnostic visits and study tours were the items against which the Litchi growers responded towards extension activities required to gain more knowledge and information on Litchi cultivation in Coorg district. The average score of the extension activities of each item has been given in Table 4 and the overall average was 1.84. Considering the overall average, that on-campus training, frontline demonstrations and off campus trainings were the items that had average score above the overall average. ^[2] Opines that systematic technology demonstration in the region can further boost the litchi production to increase the Indian fruit basket with litchi, particularly in off-season. Hence, these are the extension activities to which, prime importance is to be given in order to effectively disseminate the knowledge and information on the litchi cultivation in the Coorg area.

Table 4. Type of extension activities required (N= 30)

S.No.	Extension activities required	Yes	No	Score
		%	%	
1.	On-campus training	100	0	2.00
2.	Frontline demonstrations	100	0	2.00
3.	Off-campus training	87	13	1.87
4.	Diagnostic visits	83	17	1.83
5.	Suggestions through Whatsapp group	83	17	1.83
6.	Study tours	80	20	1.80
7.	On-farm trails	60	23	1.77
8.	Publications/literature	63	37	1.63
Overall average = 1.84				

CONCLUSION

The survey conducted among Litchi growers (30) of Coorg region of Karnataka concluded that problems due to bats, birds, insect pests, irregular flowering, lack of quality planting material availability, lack of standard package of practices, diseases were the major issues in Litchi cultivation. Profitable venture, easy management, favorable climate/ weather conditions, market demand, skilled manpower availability were the motivational factors of Litchi cultivation. On-campus training, frontline demonstrations and off campus training were the extension activities preferred by Litchi growers, whereas information about new and improved varieties/ superior cultivars, integrated pest management, propagation of Litchi plants, integrated nutrient management, integrated disease management, guidance on exports and value addition were the training needs of them.

References

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