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Socio-economic profile and knowledge level of medicinal plant growers

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Abstract

Medicinal plants are the important sources of medicine from the dawn of human civilization. Plants have formed the basis of sophisticated traditional medicine systems that have been in existence for thousands of years and continue to provide mankind with new remedies. These remedies are in sync with nature which is the biggest advantage. The demand for medicinal plants to meet domestic and export market is increasing every year. The cultivation of medicinal plant is highly depends on the socio-economic profiles and knowledge level of medicinal plant growers. The study was taken up in Thiruvannamalai District of Tamil Nadu. 120 respondents who cultivated both coleus and aonla were selected from eight villages of Chengam block. The data were collected by personally interviewing the respondents and analyzed statistically. The results of the study depicted that majority of the Coleus (50.83 per cent) and Aonla (57.83 per cent) growers had medium level of knowledge on recommended cultivation practices. The profile characteristics such as educational status, experience in medicinal plant cultivation, extension agency contact, scientific orientation, risk orientation and credit orientation were formed to be significant relationship with knowledge level of medicinal plant growers.

Keywords: Medicinal plant growers, profile characters, knowledge, relationship.

Introduction

India has been considered as a treasure house of valuable medicinal and aromatic plant species. It has a rich and unique collection of flora with an estimated 45,000 plant species spread over many different geographical and climatic zones. Many of these species have been used in the traditional medicine systems of Ayurveda, Unani and others (Pal and Jain, 1998)^[3]. Treatment with medicinal plant is considered very safe as there is no or minimal side effects. Humans have relied on nature for their basic needs for production of food, shelter, clothing, transportation, fertilizers, flavour, fragrance and medicines (Cragg and Newman, 2005)^[2]. Apart from the medicinal use, herbs are also used in natural dye, pest control, foods, perfume, tea and so on. Now-a-days medicinal herbs are important sources for pharmaceutical manufacturing. In China, Nepal and India, medicinal plant cultivation is an important revenue generating resource and providing income to economically marginalized and indigenous people (Singh, 2011). India ranks second position in export of medicinal plants next to China and it has one of the major exporters of crude drugs mainly to the six developed countries (USA, Germany, France, Switzerland, UK and Japan) at about 75 per cent to 80 per cent of the total exports. According to WHO, the global market for medicinal herb and herbal products is estimated to touch US \$5 trillion by 2050. It indicates the tremendous potential and demand in this sector. Tamil Nadu has great potential for development of medicinal plants as a commercially viable venture. Its rich bio-diversity and varied agro climate provide a conducive atmosphere for promotion of medicinal plants as a successful commercial venture. The important medicinal plant grown in Tamil Nadu are Senna, Periwinkle, Ashwagantha, Kanvali Kizhangu, Coleus and Tulsi. Senna, Periwinkle and Ashwagandha are grown more in Tirunelveli and Ramanathapuram districts whereas, glory lily and coleus are found in Salem, Namakkal, Madurai and Dindigul districts. Tamil Nadu has suitable agro climate conditions for cultivation of medicinal plants. The cultivation is mainly depends on the socio-economic characteristics of farmers, their knowledge and their adoption behavior. Knowledge on medicinal plant cultivation are an important pre-requisites for its adoption. Hence, a study has been taken up with the objectives to assess the knowledge level of medicinal plant growers and to find out the relationship of characteristics of medicinal plant growers with their knowledge level.

Methodology

An export-facto research study was conducted in Thiruvannamalai district of Tamil Nadu

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during the year 2018. Coleus and aonla are widely cultivated by the farmers. Eight villages were selected from Chengam block. 120 medicinal plant growers were selected as a sample size by proportionate random sampling procedure. Teacher - made knowledge test was administered to assess the knowledge level of respondents. Data were collected using well designed and pre-tested interview schedule. The collected data were analyzed statistically using cumulative frequency distribution method and simple correlation and multiple regression analysis.

Findings and Discussion

Overall knowledge level of Aonla growers

The results on distribution of respondents based on their knowledge level on cultivation practices of aonla are presented in Table-1.

Table 1: Distribution of respondents based on their knowledge level on aonla cultivation practices. (n=120)

S. No	Category	Number of respondents	Per cent
1.	Low	21	10.51
2.	Medium	61	57.83
3.	High	38	31.66
	Total	120	100.00

From Table-1 it could be understood that 57.83 per cent of the respondents had medium level of knowledge followed by high (31.66 per cent) level of knowledge and only 10.51 per cent of the respondents had low level of knowledge on medicinal plant cultivation. As this crop has more market demand as well as high popularity among the farmers, had acquired knowledge of it. This finding is in line with findings of Ajjan

(2004)^[1] and Shrestha and Dhillion (2003)^[5].

Overall knowledge level of Coleus growers:

The results on distribution of respondents based on their knowledge level on cultivation practices of coleus are presented in Table-2.

Table 2: Distribution of respondents according to their knowledge level on Coleus cultivation practices (n=120)

S.No	Category	Number of respondents	Per cent
1.	Low	25	20.84
2.	Medium	61	50.83
3.	High	34	28.33
	Total	120	100.00

According to Table-2 it could be noticed that more than half the proportion (50.83 per cent) of the respondents had medium level of knowledge about coleus cultivation practices followed by high (28.33 per cent) and low (20.84 per cent) levels. Majority of the farmers had medium to high level of knowledge on coleus cultivation practices. This crop also has more popular among the farmers due to its medicinal value. This may be the probable reason for such a medium to high level of knowledge of the respondents on coleus crop. This finding derives support from the findings of Ramakrishnappa (2000)^[4] and Tetali *et al.* (2002)^[7].

Relationship of profile characteristics of medicinal plant growers with their knowledge level.

The association and contribution of characteristics of medicinal plant growers with their knowledge level are presented in Table-3.

Table 3: Relationship of characteristics of medicinal plant growers with their knowledge on medicinal plant cultivation practices. (n=120)

S. No.	Variables	'r' value	Regression Co-efficient	Standard error	't' value
X1	Age	0.101NS	1.214	0.867	1.400NS
X2	Educational status	0.269**	0.945	0.435	2.172*
X3	Occupational status	0.078NS	0.472	0.398	1.185NS
X4	Annual income	0.045NS	0.246	0.198	1.242NS
X5	Farm size	-0.109NS	1.176	0.900	1.306NS
X6	Area under medicinal plant cultivation	0.121NS	0.746	0.625	1.193NS
X7	Experience in medicinal plant cultivation	0.199*	2.426	1.498	1.676*
X8	Social participation	-0.125NS	0.258	0.221	1.167NS
X9	Extension agency contact	0.205*	0.968	0.560	1.712*
X10	Scientific orientation	0.241*	1.598	0.745	2.144*
X11	Risk orientation	0.195*	2.446	1.378	1.775*
X12	Credit orientation	0.272**	0.998	0.427	2.337**
X13	Post-harvest facilities	0.113NS	0.375	0.299	1.254NS
X14	Market perception	0.091NS	0.698	0.525	1.329NS

R²= 0.547

a= 14.566

F=6.786**

*- Significant at 5% level

**-. Significant at 1% level

NS- Non-significant

It could be observed from Table-3 that the characteristics such as experience in medicinal plant cultivation, extension agency contact, scientific orientation and risk orientation showed positive and significant relationship at 5 per cent level of probability whereas, educational status and credit orientation showed positive and significant relationship at 1 per cent level of probability with knowledge level of medicinal plant growers. All other variables were found to be non-significant. Hence, it could be inferred that the knowledge level of medicinal plant growers could be positively influenced by their educational status, experience in medicinal plant cultivation, extension agency contact, scientific orientation,

risk orientation and credit orientation.

Inference

Majority of the medicinal plant growers had medium level of knowledge about Coleus (50.83 per cent) and Aonla (57.83 per cent) cultivation practices. The State Department of Horticulture may conduct more number of training programmes and make frequent contact with medicinal plant growers for increasing their knowledge level. The characteristics namely educational status, experience in medicinal plant cultivation, extension agency contact, scientific orientation, risk orientation and credit orientation

were found to have significant relationship with knowledge level of medicinal plant growers. Hence, these factors may be taken into consideration in dissemination of technologies in medicinal plant cultivation.

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