

Original Research Article

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## Perception and Adoption of Nutririch Crops Cultivation Practices among Soliga Farmers

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### ABSTRACT

The study was conducted purposively in selected 24 villages of Male mahadeshwara Hills , Chamarajanagara District, Karnataka. The study revealed that cent per cent of soliga farmers perceived Nutririch crop varieties, Soil sample collection and analysis, Seed rate and timely harvesting as more useful followed by application of fertilizers (80.00%), Nutrifarms /Kitchen garden establishments (77.33%). Cent per cent of the soliga farmers completely adopted Nutririch crop varieties, Soil sample collection and analysis, Seed rate, spacing and timely harvesting, followed by application of fertilizers, and Nutrifarms /Kitchen garden establishments (80.00%). Many of the soliga farmers have not adopted vermicompost (45.00%), intercropping (48.67%) and Value addition of agricultural produce (10.00%). Out of seven characteristics selected for the study, five viz., education, land holding, social participation, risk orientation and decision making ability had significant relationship with perception and adoption. Besides this, innovative proneness had significant relationship with perception. Thus, it is necessary to intensify the extension educational programmes such as trainings, discussion meetings, demonstrations, field visits etc., for needed perceptual changes in nutritrich crop cultivators. This will enable the soliga farmers to adopt nutritrich crop cultivation practices which in turn will help in the production of quality seeds of nutritrich crops and enhance the nutritional status.

#### Keywords

Nutririch Crops  
Cultivation,  
Seed rate

#### Article Info

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### Introduction

The Soliga Tribes, the inhabitants of M.M. Hills are people who live in close association with nature. Many are also concentrated in and around the Male Mahadeshwara hills and Kollegala Taluks of Chamarajanagar District, Karnataka. They grow prominently Ragi, Huruli, Cowpea, Avare and Maize in rainfed situation. As per the recent survey conducted by the NGO, the tribes of MM hills are having nutritional deficiency disorders.

However, there is a high prevalence of iron deficiency anemia among women and children. Generally, at household level, cultural norms and practices and socio-economic factors determine the extent of nutritional status among farmers.

In this context, the need of the hour is to improve the nutritional status of tribal women and children. In this prospective, the present study was undertaken to popularization of nutritional crops with rural and tribal people

to improve their nutritional status and to grow nutritional crops as profitable crop through value addition.

It also emphasises on pursuing the farmers to adopt the cultivation of these nutritive crops varieties in their own fields so that these varieties can be made locally available at economical prices both for seed production as well as commercial cultivation.

**Materials and Methods**

Twenty four villages of M.M Hills, Kollegala Taluk, Chamarajanagar district were selected. In each village, a list of farmers were prepared separately and 10 farmers from each village were selected randomly, thus making a total sample of 150 and more than 200 acres area covered under this study. The data were collected with the help of structured pretested interview schedule and analysed for drawing conclusions.

**Results and Discussion**

The finding obtained from the present study is presented below:

**Perception of soliga farmers regarding nutritive crop cultivation practices**

The results presented in Table 1 indicate that cent per cent of soliga farmers perceived Nutritive crop varieties, Soil sample collection and analysis, Seed rate and timely harvesting as more useful followed by Application of fertilizers (80.00%), Nutrifarms /Kitchen garden establishments (77.33%).

The possible reason might be that the soliga farmers felt that these practices were most useful for them. The findings are in conformity with that of Balasubramanian and Perumal (1989), Christinck (2002), Kerr *et al.*, (2007), Kitch *et al.*, (1998) (Table 2).

**Table.1** Perception of soliga farmers regarding nutritive crop cultivation practices (n=150)

Sr. No	Nutritive crop cultivation practices	More useful		Useful		Less useful	
		No.	%	No.	%	No.	%
1.	Nutritive crop varieties	150	100	--	--	--	--
2.	Soil sample collection and analysis	150	100	--	--	--	--
3.	Seed rate	150	100	--	--	--	--
4.	Spacing	98	65.33	28	18.66	24	16.01
5.	Application of fertilizers	120	80.00	30	20.00	--	--
6.	Plant protection measures	62	41.33	46	30.66	42	28.00
7.	Timely Harvesting	150	100	---	----	--	---
8.	Intercropping	91	60.66	45	30.00	14	09.34
9.	Vermicomposting	60	40.00	52	34.66	38	25.34
10.	Value addition of agricultural produce	62	41.33	56	37.33	32	21.34
11.	Nutrifarms /Kitchen garden establishments	116	77.33	34	22.66	--	---

**Table.2** Adoption level of nutritrich crop cultivation practices by soliga farmers (n=150)

		Adoption level					
Sr. No	Nutririch crop cultivation practices	Complete adoption		Partial adoption		Non-adoption	
		No.	%	No.	%	No.	%
1.	Nutririch crop varieties	150	100.00	--	--	--	--
2.	Soil sample collection and analysis	150	100.00	--	--	--	--
3.	Seed rate	150	100.00	--	--	--	--
4.	Spacing	150	100.00	--	--	--	--
5.	Application of fertilizers	120	80.00	30	20.00	--	--
6.	Plant protection measures	120	80.00	30	20.00	--	--
7.	Timely Harvesting	150	100.00	--	--	--	--
8.	Intercropping	44	29.33	33	22.00	73	48.67
9.	Vermicomposting	45	30.0	37	25.00	68	45.00
10.	Value addition of agricultural produce	37	25.00	98	65.00	15	10.00
11.	Nutrifarms /Kitchen garden establishments	150	100.00	--	--	--	--

**Table.3** Relationship between characteristics of soliga farmers with their perception and adoption level of nutritrich crop cultivation practices

Sr. No	Name of the variable	Perception ('r' values)	Adoption('r' values)
1.	Age	0.209	0.212
2.	Education	0.346**	0.431**
3.	Landing	0.392**	0.423**
4.	Social participation	0.431**	0.316**
5.	Innovation proneness	0.348**	0.134
6.	Risk orientation	0.459**	0.403**
7.	Decision making ability	0.362**	0.395**

**Adoption level of nutritrich crop cultivation practices by soliga farmers**

It was observed that cent per cent of the soliga farmers completely adopted Nutririch crop varieties, Soil sample collection and analysis, Seed rate, spacing and timely harvesting, followed by application of fertilizers, and Nutrifarms /Kitchen garden establishments (80.00%). Many of the soliga farmers have not adopted vermicompost (45.00%), intercropping (48.67%) and value addition of agricultural produce (10.00%).

Vermicompost and intercropping practices are important as use of modern practices for higher production in nutritrich crop cultivation. However, more than 45 per cent of soliga farmers did not adopt these practices. This might be due to the lack of complete knowledge regarding these practices. The complexity involved during the initial stage of establishment for vermicompost and many of the farmers have their own FYM/compost pits, availability of their own FYM on time may be the possible reason. Most of the soliga farmers preferred solo crop instead of inter cropping during

cultivation of nutritive crop varieties, it could be easy for them to select the preferred variety based on the yield performance. Ten percent of soliga farmers did not adopt the value addition of agricultural produce, because either they use full farm produce for their family consumption or they confined to the traditional preparations not ready to accept the new formulations. Similar findings were also reported by Usha Ravindra *et al.*, (2020).

### **Relationship between characteristics of soliga farmers with their perception and adoption level**

It is evident from Table 3 that farmer's age was not related with their perception and adoption of nutritive crop cultivation practices. Education, land holding, social participation, risk orientation and decision making ability exhibited positive and significant relationship with perception and adoption. Besides this, innovative proneness had significant relationship with perception. Similar findings were reported by Balasubramanian and Perumal (1989) and Madhu Prasad *et al.*, (2010).

In conclusion the study revealed that majority of the soliga farmers perceived that nutritive crop cultivation practices as more useful to enrich their nutritional and economic status. But some practices like, vermicompost and intercropping and value addition of agricultural produce were not adopted by few soliga farmers. Out of seven characteristics six and five characteristics have significant and positive relationship with perception and adoption of nutritive crop cultivation practices respectively. Hence, it is necessary to intensify the extension educational programmes such as trainings, discussion meetings, demonstrations, field visits etc., for needed perceptual changes among the soliga farmers. This will enable the soliga

farmers to adopt nutritive crop cultivation practices which will in turn help in quality production of nutritive crops and enhancement of nutritional diet.

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