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ASIAN JOURNAL OF SCIENCE AND TECHNOLOGY

ISSN: 0976-3376

Asian Journal of Science and Technology
Vol. 4, Issue 10, pp.155-156, October, 2013

RESEARCH ARTICLE

COMMON INDIGENOUS AGRICULTURAL PRACTICES FOLLOWED BY TRIBALS

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ARTICLE INFO

Article History:
Received 04th July, 2013
Received in revised form
13th August, 2013
Accepted 09th September, 2013
Published online 28th October, 2013

Key words:
Digging the field,
Sheep Penning,
and Cattle Penning .

ABSTRACT

The study on Indigenous Knowledge of Tribals of Pachaimalai hills, was conducted to study about adopting indigenous agricultural practices followed by tribal farmers in Pachaimalai hills in Trichy district of Tamilnadu. A sample of one hundred tribal farmers (respondents) was selected from the tribal hamlets using proportionate random sampling technique. Nearly twenty one indigenous agricultural practices were identified in the crops like paddy, tapioca and sorghum. In addition ten common indigenous agricultural practices were also identified. The data were collected with the help of well structured and pretested interview schedule and suitable statistical tools were used to analyse the data. Sixty to ninety percent of the respondents have been adopting almost all the identified indigenous agricultural practices.

INTRODUCTION

Indigenous knowledge is unique to a given culture or society. This knowledge is the information base for a society and it facilitates communication and decision making. It is dynamic and it changes through indigenous creativity and innovativeness as well as through contact with other systems. Indigenous knowledge systems are strategies and techniques developed by local people to cope up with the changes in the socio-cultural and environment conditions. Tribals are generally noted for the wealth of indigenous knowledge. In Tamil Nadu the total tribal population is rather small and scattered all over the state. Like the rest of India, the tribal population in the state is found to occur in and around hilly areas/tract. The tribal population in Tamil Nadu state is about 5.2 lakhs representing 1.10 per cent of the total population of the state. The literacy rate of the tribes in the state is 20.45 per cent an against the general literacy rate of 46.79 per cent in the state. The tribal farmers living at the 'Pachimalai Hills' of Trichy District of Tamil Nadu have their main occupation as agriculture.

MATERIALS AND METHODS

As the main objective to this study was centred around the tribal people, it was planned to select all the three blocks of Pachaimalai hills to have a unique representation. Accordingly, the three blocks viz., for the Vannadu, Thenpuranadu and Kombai were selected for the study.

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The three blocks in Pachaimalai hills having large area under paddy, tapioca, and sorghum cultivation were purposively selected. Twenty villages were selected based on their maximum area under paddy, tapioca and sorghum crop. Of the total villages selected, eight villages were selected each from Vannadu and Thenpuranadu and four were from Kombai block. From the twenty selected villages, five respondents from each were selected randomly for the purpose of data collection. A sample size of 100 respondents was considered adequate for the study. The total number of respondents to be selected from each block was arrived at one the basis of proportionate random sampling procedure.

RESULTS AND DISCUSSION

The extent of adoption of various common indigenous agricultural practices are presented in Table 1.The findings in Table 1 reveals that almost all the common indigenous agricultural practices were found to be adopted by more than 80.00 per cent of the respondents except two practices viz., 'fumigation in closed containers for ripening of fruits' and 'displaying crow's carcass to scare away the bird's were adopted by 65.00 per cent and 61.00 per cent of the respondents respectively. Among the individual practices namely 'summer ploughing' was adopted by the 100.00 per cent of the respondents followed by 'tieing of polythene sheets to scare away the birds' (97.00 per cent), 'shallow ploughing after summer rain' (91.00 per cent), 'dusting of ash to control pests' (89.00 per cent), 'adding organic waste in FYM in the soil' (87.00 per cent), 'sheep penning and cattle penning' (86.00 per cent), 'digging the field burrows to kill the rats' (83.00 per cent), 'beating drums to scare away the birds' (70.00 per cent), 'fumingation in closed containers for

Table 1. Extent of Adoption of various common indigenous agricultural practices

(n=100)

S. No.	Common indigenous agricultural practices	Total No. of respondents	Per cent
1.	Tieing of polythene sheets to scare away the birds	97	97.00
2.	Beating drums to scare away the birds	70	70.00
3.	Displaying crow's carcass to scare away the crows	61	61.00
4.	Summer ploughing	100	100.00
5.	Shallow ploughing after summer rain	91	91.00
6.	Dusting of ash to control pests	89	89.00
7.	Digging the field burrows to kill the rats	83	83.00
8.	Sheep penning and cattle penning	86	86.00
9.	Adding organic waste and FYM in the soil	87	87.00
10.	Fumigation in closed containers for ripening of fruits	65	65.00

ripening of fruits' (65.00 per cent) and 'displaying crow's carcass to scare away the birds' (61.00 per cent). It may be inferred that, almost all the respondents adopted the summer ploughing practices in main field. It may be due to the fact that summer ploughing helps in moisture conservation, eradication of weeds and control of soil erosion during off season. Further it was found that more than 97.00 per cent of the respondents followed the practices namely 'tieing of polythene sheets to scare away the birds' in field. It involves only less expenditure and it controls the bird damage during the maturity stage of the various crops in the hilly tracts. Because of these benefits, most of the farmers would have adopted this practices. This findings is line to findings of Sivasankaran (1996).

The practices namely 'shallow ploughing after summer rain' was adopted by 91.00 per cent of respondents may be due to the advantages like moisture conservation control of the pest and disease and to tuning of soil properties in their field. The fourth important common indigenous practices namely 'dusting of ash to control pests' was adopted by 89.00 per cent of the respondents. Dusting ash to control the pest is a simple no cost technology and effective in controlling all kinds of pest. These advantages would have enabled them to adopt more. This findings is in line with the Kanagasabapthi (1988)
The table indicates that 86.00 per cent of the respondents were found to adopt the practices namely, 'application of sheep penning and cattle penning in the field'. Most of the respondents believed that the application of sheep and cattle penning improve the fertility of soil that leads to additional yield in their cultivation. Also, most of the respondent were having cattle and sheep in their homes and their manures are easily available and cost effective, when compare to chemical fertilizers. Hence, most of the respondents might have followed the above said practice. Vasanthakumar (1979) observed a similar result in his research. Adding organic waste and farm yard manure in the soil enriches the fertility of the soil and it is economical and easily available. This may be the reason for majority of the respondents (87.00 per cent) to adopt this practice. 'Digging the field burrows to kill the rats' was adopted by 83.00 per cent of the respondents. Digging the burrows is the common practice followed by all the respondents in their field before planting. It helps to control the rats, crabs effectively and it saves the water effectively. In addition it can be practiced very easily. Therefore they would have adopted this practice in their cultivation.

Somasundaram (1995) has also made a similar observation in this study area. The other two practices namely 'beating drums to scare away the birds', and 'displaying crow's carcass to scare away the birds' were followed by 70.00 per cent and 61.00 per cent of the respondents. These two practices are common and well established among the tribal farmers. Most of the respondents opined that beating the drums and displaying crow's carcass in their main field would result in scaring away the birds effectively and save the crops during matured grain stage and it is also a low cost technology. Hence most of the respondents could have adopted this practice. This findings is in line with the findings of Marimuthu (2001). 'Fumigation in closed container for ripening of fruit' was adopted by 65.00 per cent of the respondents, Since, most of the respondents reported that this practice is being followed traditionally and it leads to earlier ripening of fruits.

Conclusion

Most of the respondents were found to have medium to high level of adoption of indigenous agricultural practices. Hence it is suggested that the extension workers to utilize the services of the farmers with indigenous knowledge in educating the other farmers.

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