



Paddy Cultivation practices followed by the Santal tribe in Mayurbhanj district of Odisha

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ABSTRACT

The study was conducted in Mayurbhanj district of Odisha state. A representative sample of 120 Santal tribal farmers was selected for the study from two blocks namely Tiring and Bahalda. Data were collected personally by interviewing 120 Santal tribal farmers with the help of structured interview schedule. The respondents were asked about different practices actually followed by them in paddy cultivation and the responses were calculated and presented on the basis of frequency and percentage. Maximum percentage of Santal tribes (66.67%) were using local varieties however, 33.33 per cent respondents were using HYVs. Only 22.50 per cent respondents were going for seed treatment. Regarding summer ploughing, 40.00 per cent of respondents were doing this practice. Regarding line transplanting, only 21.67 per cent respondents had adopted this practice. Majority of the respondents (71.67%) had adopted the beushaning practice. About 65.00 per cent of the respondents had adopted the gap filling practice. Regarding weed management, majority of the respondents (82.50%) had adopted manual method of weed management. Most of the respondents (65.80%) had adopted traditional method of disease and pest control however, 34.17 per cent respondents had adopted chemical method. Majority of respondents (72.50%) were using FYM with chemical fertilizer whereas 27.50 per cent were using only FYM. Majority of the respondents (92.50 %) were doing harvesting manually whereas only 07.50 per cent respondents had adopted mechanical method for harvesting. Regarding post harvest management, most of respondents (65.00%) had adopted sun drying of grain practice.

Key words: Paddy cultivation practices, Santal tribe, Mayurbhanj

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INTRODUCTION

In Odisha, rice is synonymous with food. Agriculture in Odisha to a considerable extent means growing rice. Age-old social customs and festivals in Odisha have strong relevance to different phases of rice cultivation. Rice covers about 69 per cent of cultivated area and is the major crop covering about 63 per cent of total area under food grains. It is the staple food of almost entire population of Odisha. Therefore, the state economy is directly linked with the improvement in production and productivity of rice in the state.

The Santals are an ethnic group, native to Nepal and the Indian states of Jharkhand, West Bengal, Bihar, Assam and Odisha. Santals are the largest tribe in India in terms of population. There is also a significant Santal minority in neighbouring Bangladesh, and a small population in Nepal and Bhutan. They have been living a simple life based on the natural environment and have developed cultural patterns congenial to their physical and social environment [1]. They have different life style, culture, tradition as compare to other tribals and Santals have their own language i.e. Santali with script Olchiki. Mayurbhanj district is basically tribal dominated district with second highest proportion of Scheduled tribes (58.58 %) as against 22.85 per cent in the state during 2011. Rice is the major crop in the district with *Kharif* paddy coverage of area 364000 ha (highest area in the state) out of total cultivated area (437000 ha) of the district and contributes highest percentage (8.22 %) of total rice area in the state. However, it comes under low productivity district with average productivity of 2092 kg/ha as against state average of 2404 kg/ha. More than 70 per cent of the rice area in Odisha is under HYVs, however in the district Mayurbhanj it is only 50.7 per cent of rice area [2].

One of the major problem of the area is low level of rice productivity. The Santal tribe of Mayurbhanj district is dependent on paddy crop for their livelihood.

MATERIAL AND METHODS

The study was conducted in Mayurbhanj district of Odisha state. A representative sample of 120 Santal tribal farmers was selected for the study from two blocks namely Tiring and Bahalda. From each block, 4 villages were selected randomly considering the presence of Santal tribes. Thus total eight villages were selected from two blocks.

Data were collected personally by interviewing 120 Santal tribal farmers with the help of structured interview schedule. The respondents were asked about different practices actually followed by them in paddy cultivation and the responses was calculated and presented on the basis of frequency and percentage.

RESULTS AND DISCUSSION

Table 1. Different practices related to paddy cultivation followed by Santal tribe

S.No.	Practices followed	Statement	Frequency (N = 120)	Percentage
1.	Selection of variety	HYV	40	33.33
		Local	80	66.67
2.	Seed treatment	Yes	27	22.50
		No	93	77.50
3.	Summer ploughing	Yes	48	40.00
		No	72	60.00
4.	Line transplanting	Yes	26	21.67
		No	94	78.33
5.	Beushaning	Yes	86	71.67
		No	34	28.33
6.	Gap filling	Yes	78	65.00
		No	42	35.00
7.	Weed management	Manual	99	82.50
		Chemical	21	17.50
8.	Plant protection	Chemical	41	34.17
		Traditional	79	65.80
9.	Manuring	FYM	33	27.50
		Chemical fertilizer +FYM	87	72.50
10.	Harvesting	Manual	111	92.50
		Mechanical	9	07.50
11.	Post harvest management	Yes	42	35.00
		No	78	65.00

Table 1 shows the frequency of the respondents to the eleven paddy cultivation practices listed in the schedule.

Table 1 revealed maximum percentage (66.67%) of Santal tribes were using local varieties however, 33.33 per cent respondents were using HYVs.

The local and HYVs preferred by them were:

(a) Popular local varieties i.e. Sitasal, Balibhajna, Jharli, Agnisar, Baboilachha, Kashiphool, Salkhansal, Kalikuji.

(b) Popular High yielding varieties i.e. Pooja, Mahalaxmi, Khandagiri, MTU-1001, Swarna, Lalat, Naveen. With regards to seed treatment, majority of the respondents (77.50%) were not doing any kind of seed treatment, whereas only 22.50 per cent respondents were going for seed treatment.

Ploughing is the primary tillage operation which is performed to cut, break and invert the soil partially or completely suitable for sowing seeds. Summer ploughing is the most common practice from plant protection point of view specially to manage soil borne diseases and the data shows that 40.00 per cent of respondents were doing summer ploughing.

Line planting was not common among Santal tribe as only 21.67 per cent respondents had adopted this practice, while other were not following the line transplanting method.

In semi arid direct sown system of rice cultivation, when the crop is about 45-50 days old, rain water is impounded, into the main field 5-10 cm height and a narrow plough is worked in field in the standing crop. In certain cases one closer ploughing is also done length wise and cross wise, this operation is called beushaning, this operation should be followed by spreading or khelua (gap filling). This practice is most common among Santal tribe and was adopted by 71.67 per cent respondents. Gap filling was done for maintaining optimum plant population and adopted by 65.00 per cent of the respondents.

Weed management was mostly done manually by majority i.e. 82.50 per cent of the Santal tribe that may be due to lack of knowledge about herbicides and its use whereas few farmers (17.50%) adopted chemical control measure.

Maximum percentage of Santal tribes (65.80%) were following traditional method of pest and disease control measure whereas 34.17 per cent respondents had adopted chemical method of disease and pest control.

In case of manuring, majority of Santal tribes (72.50%) were using FYM with chemical fertilizer whereas 27.50 per cent were using only FYM. Harvesting of paddy was done manually with the help of reaper by a vast majority of the Santal tribes (92.50 %) whereas only 07.50 per cent respondents adopted mechanical method for harvesting. Post-harvest management was the most important practice from storage point of view and it was adopted by 65.00 per cent Santal tribes among which sun drying of grain was the most common post harvest management practice. This finding find supports with the work of [3], [4], [5] and [6].

CONCLUSION

It is concluded that most of the Santal tribal farmers were using local varieties rather than HYVs. There is a need of training on scientific method of paddy cultivation, timely supply of agricultural inputs by the govt. agencies.

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