Original Research Article

Knowledge of the Respondents towards Paddy Production Technology in Mahabubnagar district of Telangana

Abstract

A study entitled "Knowledge of respondents towards paddy production technology in Mahabubnagar district of Telangana. A structured interview was conducted among that 120 farmers were selected from 20 villages, with six respondents from each village. Data were collected by using the pre-tested schedule and analysed using appropriate statistical tools. It was found that most respondents were having a medium level of socio-economic profile. On analysing the knowledge level, the education level, the highest number of respondents i.e., 53.33 percent were having a medium level of knowledge followed by percent had high and 21.67 percent had low levels. On analysing the education level, the highest number of respondents i.e., 53.33 percent were having a medium level of education followed by 33.33 percent having high and 12.5 percent having low levels. Independent variables namely age education annual income land holding, mass media exposure extension contacts, and economic motivation had positive and significant relationships with adoption respectively. The major constraints faced were delay in doing due to monsoon prolong, complexity, lack of skill and knowledge, unavailability of laborers, and hang cost of input and storage facilities respectively

Keywords: knowledge, paddy growers, production, and technology

1. Introduction:

Paddy, also called rice paddy, small, level, flooded field used to cultivate rice in southern and eastern Asia. Wet-rice cultivation is the most prevalent method of farming in the far east, where it utilizes a small fraction of the total land yet feeds most of the rural population. Rice was domesticated as early as 3500 Bc, and by about 2,000 years ago it was grown in almost all the present-day cultivation areas, predominantly deltas, floodplains, and coastal plains, and some terraced valley slopes.

Rice, (Oryza sativa), edible starchy cereal grain, and the grass plant (family Poaceae) by which it is produced. Roughly one-half of the world's population, including virtually all East and Southeast Asia, is wholly dependent upon rice as a staple food: 95 percent of the world's rice crop is eaten by humans. Rice is cooked by boiling or it can be grounded into flour. It is eaten alone and in a great variety of soups side dishes, and main dishes in Asian, middle eastern, and many other cuisines. Other products in which rice is used are breakfast cereals, noodles, and such alcoholic beverages as Japanese sake.

The cultivated rice plant is an annual grass and grows to about 1.2 meters (4 feet) in height. The leaves are long and flattened and are borne on hollo stems. The fibrous root system is often broad and spreading. The panicle, or inflorescence (flower cluster), is made up of spikelets bearing flowers that produce the fruit, or grain. Varieties differ greatly in the length, shape, and eight of the panicles and the overall productivity of a given plant.

In the 1960s the so-called Green Revolution, an international scientific effort to diminish the threat of world hunger, produced improved strains of numerous food crops, including that known as miracle rice. Breed for disease resistance and increased productivity, this variety is characterized by a short sturdy stalk that minimizes loss from drooping. Poor soil conditions and other factors, however, inhibited its anticipated widespread success.

Many cultures have evidence of early rice cultivation, including China, India, and the civilizations of Southeast Asia. However, the earliest archaeological evidence comes from central and eastern China and dates to 7000-5000 BCE. More than 90 percent of the world's rice is grown in Asia, principally in China, India, Indonesia, and Bangladesh, with smaller amounts grown in Japan, Pakistan, and various Southeast Asian nations. Rice is also cultivated in parts of Europe, North and South America, and in Australia.

2. Research Methodology:

The study was conducted in the Mahabubnagar district of Telangana state, India. The study attempts to describe and analyse the impact of technology utilization behaviour of paddy growers.

There are 15 Blocks in Mahabubnagar district, 30 villages, out of which Jadcherla were selected purposely for study. In that 6 villages were selected purposely i.e (Kaverampet, Gangapur, Ranipet, Lingampet, Midgil, Jagboinpalli), Thus in all 120 paddy growers constituted sample for the investigation. Based on objectives of study an interview schedule was prepared. The information was elucidated from respondents with the help of pre structured schedule through descriptive research design. The information was collected by personally interviewing respondents using pre structured interview schedule.

3. Results and discussion:

The study entitled **"Knowledge of the respondents towards improved Paddy Production Technology in Mahabubnagar district of Telangana"** was undertaken to assess the knowledge of the respondents towards paddy production technology.

Table 1. Knowledge of the respondent towards improved paddy production practices:

Sl.No	Statements	Evaluation		
		Fully Correct (%)	**Partially Correct (%)**	**Not Correct (%)**
1.	Field Preparation: i. Traditional method-2-3 times plow ii. Use of zero tillage machine iii. Surface seeding method iv. Puddling v. Transplantation	58 (48.33%)	44 (36.67%)	18 (15.00%)
2.	Improved variety: i. Telangana Sona ii. Kunaram - 1638 iii. Kunaram – 118	42 (35.00%)	44 (36.67%)	34 (28.33%)

	iv. Jagital – 94423 v. Tella Hamsa			
3.	Seed and its treatment: i. Vitavax ii. Carbendazim iii. Pseudomonas fluorescens	26 (21.67%)	64 (54.16%)	30 (25.00%)
4.	Sowing time: i. July to October ii. Feb to May	40 (33.33%)	48 (40.00%)	32 (26.67%)
5.	Spacing: i. 22.5 to 23cm ii. 15 to 18cm iii. 20-22.5cm	40 (33.33%)	54 (45.00%)	26 (21.67%)
6.	Fertilizers: i. 120:60:40KgNPK/ha ii. 90:60:40KgNPK/ha	28 (23.33%)	70 (58.33%)	22 (18.33%)
7.	Irrigation: i. 2 times ii. 3 times iii. 6 times	36 (30.00%)	60 (50.00%)	24 (20.00%)
8.	Weeding and hoeing operations: i. 2 times ii. 3 times iii. 4 times	30 (25.00%)	43 (35.83%)	47 (39.16%)
9.	Weed control: i. 2,4-D ethyl ester ii. Butachlor iii. Benthiocarp iv. Anilophos	28 (23.33%)	62 (51.67%)	30 (25.00%)
10.	Diseases: i. Brown spot ii. Sheath blight iii. Bacterial blight	32 (26.67%)	48 (40.00%)	40 (33.33%)

	iv. Blast of rice v. Tundu vi. Bacterial streak			
11.	Harvesting i. 80-90 days ii. 90-100 days iii. 100-110 days iv. 110-120 days	30 (25.00%)	38 (31.67%)	52 (43.33%)
12.	Yield: i. 20-25 quintal/ha ii. 25-30 quintal/ha iii. 30-35 quintal/ha	26 (21.67%)	70 (58.33%)	24 (24.00%)

It can be reported that regarding field preparation 48.33 per cent, 36.67 per cent and 15.00 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding Improved variety 35.00 per cent, 36.67 per cent and 28.33 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding Seed treatment 21.67 per cent, 54.16 per cent and 25.00 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding Sowing time 33.33 per cent, 40.00 per cent and 26.67 per cent of respondents reportedly fully correct, partially correct and not correct response respectively.

Meanwhile regarding spacing 33.33 per cent, 45.00 per cent and 21.67 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding fertilizers 23.33 per cent, 58.33 per cent and 18.33 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding irrigation 30.00 per cent, 50.00 per cent and 20.00 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding weeding and hoeing 25.00 per cent, 35.83 per cent and 39.16 per cent of respondents reportedly fully correct, partially correct and not correct response respectively.

Similarly regarding weed control 23.33 per cent, 51.67 per cent and 25.00 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding diseases 26.67 per cent, 40.00 per cent and 33.33 per cent of respondents reportedly fully correct, partially correct and not correct response respectively. Regarding harvesting 25.00 per cent, 31.67 per cent and 43.33 per cent of respondents reportedly fully

correct, partially correct and not correct response respectively. Regarding yield 21.67 per cent, 58.33 per cent and 24.00 per cent of respondents reportedly fully correct, partially correct and not correct response respectively.

Table 2. Distribution of respondents according to their overall knowledge level

Knowledge level	Frequency	Percentage
Low (13-20)	26	21.67
Medium (21-27)	64	53.33
High (28-34)	30	25.00
Total	**120**	**100.00**

It was clearly visible that majority 53.33 per cent of paddy growers had medium level of knowledge on paddy production technology, 21.67 per cent and 25.00 per cent of the paddy growers had low and high level of knowledge on paddy production technology respectively.

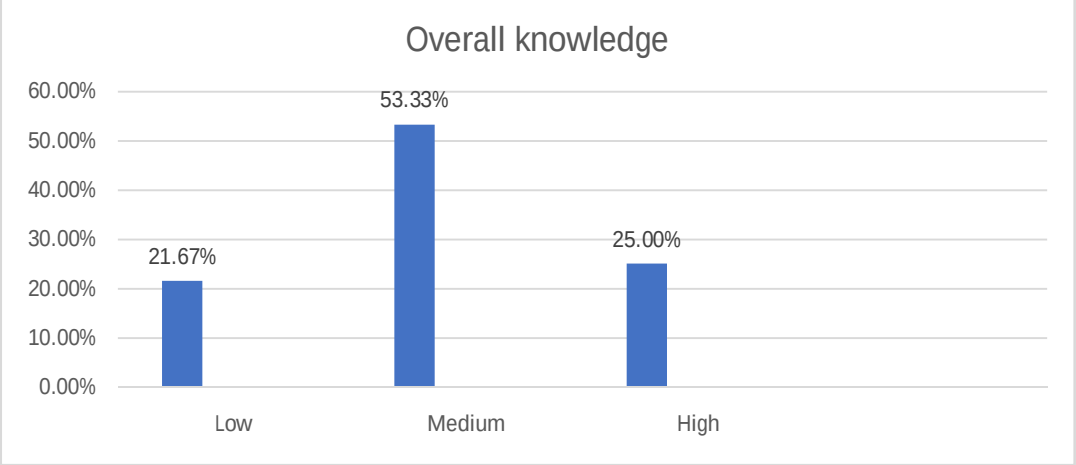

Fig 1. Distribution of respondents based on their overall knowledge level

Conclusion:

It was concluded that majority 53.33 per cent of the paddy growers had medium level of knowledge on paddy production technology, 21.67 per cent and 25.00 per cent of the paddy growers had low and high level of knowledge on paddy production technology respectively. Knowledge level of majority of respondents was medium. Minimum support price of paddy should be declared well in advance by Government to increase the knowledge of growers towards paddy production technology.

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