

ADOPTION OF HOMESTEAD TECHNOLOGIES OF RAJENDRA AGRICULTURAL UNIVERSITY (RAU) BY RURAL WOMEN OF BIHAR

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ABSTRACT

Research scientists are continuously engaged in generation of technologies to shape the life of rural women. However, whether the intended homestead technologies reach the target client and are adopted by them widely is a matter of concern. Hence, the study was conducted in three districts of Bihar *i.e.*, Samastipur, Muzaffarpur and Vaishali with 225 rural women who were exposed to all the nine selected homestead technologies of Rajendra Agricultural University (At present Dr. Rajendra Prasad Central Agriculture University). Data was collected during April 2013 to October 2013 and personally interviewing the respondents to assess the extent of adoption of these technologies at four point continuum *i.e.*, full adoption, partial adoption, discontinuance and non-adoption. The results of the study revealed that the extent of adoption of homestead technologies for a majority (53.33%) of the respondents was medium. Majority of them had fully adopted four technologies *i.e.*, stitching and embroidery, value addition to cereals and pulses, mushroom cultivation and vermicompost while for the rest of the technologies majority of them fell under non-adoption category.

INTRODUCTION

Adoption is defined as the “decision to make full use of an innovation or practice” (Rogers and Shoemaker, 1971). Adoption here refers to the ‘use’ *i.e.* not only acceptance of improved technology or practices in principle but its actual application in farm and household life. It is a common observation that rural women do not adopt all the recommended technology. Adoption of technology at individual rural woman’s level is believed to be the consequence of extent to which various factors responsible for adoption are gainfully exploited because when individual gets exposed to the existence of a technology, a number of factors directly or indirectly impinge upon the pace as well as the level and extent of adoption.

There is a wide gap between agricultural technologies developed at research institutions and its adoption by small-scale farmers and rural households (Kroma, 2003). Efforts need to be made to ensure that the technologies meant for the rural women gets disseminated at large scale throughout the length and width of the State leading to high rate of adoption of these technologies. However, there is paucity of data in this regard and no such study had

been conducted so far to provide a baseline data for the functionaries to design action plan for them. Keeping these things in view, the research study was conducted with the objective to assess the extent of adoption of homestead technologies of Rajendra Agricultural University (RAU) by the rural women.

MATERIAL AND METHODS

The objective of the study was to study the extent of adoption of homestead technologies of RAU by rural women. Hence, a list of technologies or practices was prepared under each of the nine selected homestead technologies *viz.*, fruit & vegetable preservation, stitching and embroidery, value addition to garments, arts and craft making, value added products from cereals and pulses, mushroom production, value added mushroom products, vermicompost technology and apiculture. The respondents were randomly selected from nine villages, covering three villages from each randomly selected block, from the three randomly selected districts *viz.*, Samastipur, Muzaffarpur and Vaishali. To study the extent of adoption of each technology or practice at various levels of adoption *i.e.*, full adoption, partial adoption, complete discontinuance and non-adoption, data was collected from 225 rural

women who were exposed to all the nine selected homestead technologies.

Scoring pattern

Schedule comprising of 38 items (technologies) was prepared. The response continuum for each item ranged from full adoption, partial adoption (some aspects of the technologies were adopted and some were not adopted), discontinuance (adopting and discontinuing) and non-adoption. A score of 4, 3, 2 and 1 was assigned for full adoption, partial adoption, discontinuance and non-adoption, respectively. By adding up the scores obtained by a respondent on all the items, total score was obtained. Thus, total scores for all the respondents were computed. Mean and standard deviation of the total score was calculated and accordingly the respondents were categorised into the following three categories as given below:

S. No.	Category	Score
1	Low	Mean- S.D.
2	Medium	Mean \pm S.D
3	High	Mean +S.D.

Further, information was also obtained for technology-wise percentage of adoption of the nine homestead technologies by the respondents on the four point continuum of adoption *i.e.*, full adoption, partial adoption, discontinuance and non-adoption.

RESULTS AND DISCUSSION

Overall extent of adoption of homestead technologies

The results of Table 1 revealed the extent of adoption of homestead technologies by the respondents. It can be inferred from the data of this table that the extent of adoption of homestead technologies for a majority (53.33%) of the respondents was medium. It was followed by high category and low category of respondents comprising 28.89 per cent and 17.78 percent, respectively.

Table 1. Distribution of respondents based on the extent of adoption

N=225

S. No.	Category	Frequency (f)	Percentage (%)
1	Low	40	17.78
2	Medium	120	53.33
3	High	65	28.89
	Total	225	100.00

Mean= 56.85 Standard Deviation=5.83

Technology – wise extent of adoption of homestead technologies

This section presents data on extent of adoption of the homestead technologies technology-wise which has been presented in tables and graph. It can be observed from the data of this table that the homestead technologies *i.e.*, vermicompost technology (62.67%), stitching and embroidery (55.55%) and mushroom production (52.89%) were fully adopted by a majority of the respondents. For the remaining six homestead technologies *i.e.*, value addition to garments (94.67%), value added mushroom products (76.0%), art and craft making (65.33%), fruit and vegetable preservation (61.33%), apiculture (56.0%) and value addition to cereals and pulses (47.56%) majority of the respondents fell under non-adoption category. Out of them, a small percentage of the respondents were found to discontinue these technologies except value addition to garments and value added mushroom products. It is interesting to note that majority of the respondents were found not to adopt six technologies out of the nine selected homestead technologies.

The findings revealed that majority (53.33%) of the respondents had medium extent of adoption of homestead technologies. Majority of them had fully adopted four technologies *i.e.*, stitching and embroidery, value addition to cereals & pulses, mushroom cultivation and vermicompost while for the rest of the technologies majority of them fell under

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non-adoption category. The reason for this may be due to untimely supply of inputs, poor financial condition and lack of proper financial and marketing support from the institutions. As per the suggestions of the respondents, if efforts on improving input accessibility, exploring market channels, development of low cost technologies, trainings on

proper storage and packaging, efforts in obtaining quality assurance certificates were intensified then definitely adoption level of these technologies will also improve. Waman *et al.* (2006) revealed that majority of the farmers had low to medium level of adoption of recommended IPM practices in cotton.

Table 2. Distribution of respondents (technology-wise) based on the extent of adoption (N=225)

S. No.	Homestead technology	Extent of Adoption			
		Full adoption f (%)	Partial adoption f (%)	Discontinuance f (%)	Non adoption f (%)
1	Fruit and Vegetable preservation	61(27.11)	0.00(0.00)	26(11.56)	138(61.33)
2	Stitching and embroidery	125(55.55)	0.00 (0.00)	04 (1.78)	96 (42.67)
3	Value addition to garments	12(5.33)	0.00 (0.00)	0.00 (0.00)	213 (94.67)
4	Art and craft making	51(22.67)	0.00(0.00)	27(12.00)	147 (65.33)
5	Value addition to cereals and pulses	100 (44.44)	0.00 (0.00)	18(8.00)	107 (47.56)
6	Mushroom production	119 (52.89)	0.00(0.00)	9(4.00)	97(43.11)
7	Value added mushroom products	54(24.00)	0.00(0.00)	0.00(0.00)	171(76.00)
8	Vermicompost technology	141(62.67)	0.00 (0.00)	1 (0.44)	83 (36.89)
9	Apiculture	78 (34.67)	0.00 (0.00)	21 (9.33)	126 (56.00)

* figures in parentheses indicate percentages

CONCLUSION

Adoption of a technology is the ultimate indicator of success or failure of the technology. Hence, it is not only imperative to generate technologies but also to ascertain that it gets assimilated among the end-users. The study highlighted that the extent of adoption of homestead technologies by the rural women of Bihar is not satisfactory. Hence, a lot needs to be done by the research scientists as well as the extension personnel to improve the extent and rate of adoption of these technologies so that it can bring a positive change in the life of rural women. Monitoring and follow-up action would greatly help in improving the adoption of these technologies.

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