



## **Extent of Adoption of Improved Production Technology by Banana Farmers**

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### **ABSTRACT**

Banana is one of the major fruit crops in India. The study was taken up in Kollur, Kollipara and Bhattiprolu mandals of Guntur district based on maximum area of Banana cultivation. A total of 120 Banana growers were selected based on proportionate random sampling method. Majority of Banana growers found under medium level of adoption category. Independent variables Education, Land holding, Socio-politico participation, Extension agency contact, Mass media exposure, Risk orientation, Economic orientation and scientific orientation showed significant relationship with extent of adoption and also it revealed that all 11 independent variables explained to the extent of 58.40 per cent of variation with extent of knowledge.

**Key Words:** Banana Farmers, Technology

Banana is the queen of tropical fruit. Banana is cultivated in India over an area of 4.23 lakh ha with the production of 121.045 lakh tonnes. The yield estimated to be 28.61 tonnes/ha. In Andhra Pradesh during 2007-08 Banana was cultivated in an area of 53,465 lakh ha with the production of 12, 29,695 Mt. In Guntur district Banana is cultivated in an area of 4,600ha with the production of 1, 15,000 metric tonnes and productivity is estimated to be 25tonnes/ha. The yield can be raised by adopting latest practices of Banana production technology. The latest Banana production technologies are not properly followed by the farmers. Hence the present study was designed to assess the extent of adoption of Banana technologies among the Banana growers.

### **MATERIAL AND METHODS**

The study was conducted in Guntur district of Andhra Pradesh through ex-post facto research design. Kollur, Kollipara and Bhattiprolu mandals were selected purposively based maximum area of Banana cultivation. A total of 120 Banana growers were selected through proportionate random sampling method. Collected data was analysed by using suitable statistical tools and necessary inferences were drawn.

### **RESULTS AND DISCUSSION**

It could be seen from table 1 which more than three fourths of respondents (75.83%) belonged to medium adoption category. Whereas 14.17 per cent respondents belong to low adoption category

followed by 10 per cent falling in high adoption category. This finding was in tune with the findings of Venugopalarao (1996).

An overview of table 18 revealed that education had positive and highly significant relationship with the adoption. Increase in the education makes reduced adoption gap. Literate farmer make use of written and print media besides other sources for affecting improvement in farm business. Education develops mental activity to grasp, accept and adopt the new practices. This finding was supported by the research findings of Pandya and Vekaria (1994).

### **Relationship between selected independent variables and their adoption of recommended practices in Banana cultivation**

The table 2 depicted that the land holding of farmers had positive and highly significant relationship with their adoption. More the land holdings more would be their adoption of practices. Land holding increase in contributed prosperity of farmers results in acceptance of more. This would have been the reason for farmers with more land holdings to adopt more number of recommended practices compare to the farmers with less level of land holding. The similar findings were also reported by Pandya and Vekaria (1994),

The table 2 revealed that farming experience did not show significant relationship with the adoption of farmers even though it is positively related. This clearly stated that farmer who had more experience might be knowing the potentiality,

Table 1. Distribution of farmers according to extent of adoption

(n= 120)

S.No.	Category	Respondents	
		Frequency	Percentage
1.	Low (< 29.413)	17	14.17
2.	Medium (< 29.413 to 33.153)	91	75.83
3.	High (>33.153)	12	10.00
Mean = 31.283		SD = 1.870	

Table2. Relationship between selected independent variables and their adoption of recommended practices in Banana cultivation

(n= 120)

S.No.	Independent variables	'r' value
1.	Education	0.401**
2.	Land holding	0.255**
3.	Farming experience	0.153 NS
4.	Socio-politico participation	0.371**
5.	Extension Agency contact	0.475**
6.	Mass media exposure	0.401**
7.	Risk orientation	0.259**
8.	Economic orientation	0.301**
9.	Scientific orientation	0.341**
10.	Market orientation	0.178 NS

NS = Non significant

\*\* Significant at 0.01 level of probability

applicability and utility of taking of recommended practices and become aware of relevant remedial measures in case of any ill effects. But for promoting adoption factors like income and risk orientation are essential. This finding was in accordance with the finding of Gopiram (2005).

An over view of the table 2 revealed that the socio-politico participation found to have highly positive and significant correlation with adoption. The reason for this type of relationship might be due to the accessibility to more sources of credit and information sources there by driving them to have more adoption. The results supported by the findings of Pandya and Vekaria (1994)

The table 2 revealed that there was positive and significant relationship between extension agency contact with the adoption. This might be the due to their increased accordingly to knowledge on recommended practices of Banana through change agents like H.O, A.O, A.E.O etc., resulting in high adoption with changed confidence levels. Similar findings also observed by Pandya and Vekaria (1994)

The statistical test indicated that all the ten variables taken together explain a significant amount of variation in the adoption of respondents. It was revealed that all the ten independent variables explained to the extent of 58.40 per cent of the

Table 3. Multiple Linear Regression analysis of independent variables with the adoption of recommended practices in Banana cultivation

(n= 120)

S.No.	Independent variables	Regression coefficient	Standard error	t' value
1.	Education	0.1921	0.1463	1.3194 NS
2.	Land holding	0.4990	0.2294	2.1795*
3.	Farming experience	0.0186	0.1505	0.1246 NS
4.	Socio-politico participation	0.1095	0.1145	0.9568NS
5.	Extension agency contact	0.1641	0.049	3.3607*
6.	Mass media exposure	0.1754	0.0818	2.1536*
7.	Risk orientation	0.1076	0.0769	1.4097*
8.	Economic orientation	0.0678	0.0524	1.4843NS
9.	Scientific orientation	0.2829	0.0855	3.3134*
10.	Market orientation	0.0693	0.0658	1.0628NS

Intercept (a) = 10.1360

R<sup>2</sup> = 58.40

NS = Non significant

\* Significant at 0.05 level of probability

variation in the adoption of respondents leaving the rest for extraneous effect (41.60%).

Though, all the independent variables contributed in explaining the variation of the dependent variable, the independent variables like land holding, extension agency contact, mass media exposure, risk orientation and scientific orientation had their significant contribution.

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(Received on 01.12.2009 and revised on 18.12.2009)