



## **Impact of price forecasting on Cotton farmers income in Krishna Zone of Andhra Pradesh**

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### **ABSTRACT**

Market information and intelligence inputs are crucial for farmers who wish to become fully market orientated and ensure that their production programmes are tuned with changing market demand and conditions. The availability of predicted reliable market information can assist farmers in optimizing their resources to reduce the risks associated with marketing and decide where to sell the produce, check whether or not the prices they are offered are in line with market prices, decide whether or not to store, decide whether to grow produce “out-of-season”, decide whether or not to grow different products. The Agricultural Market Intelligence Centre (AMIC) of S.V. Agricultural college, Tirupati has been releasing price forecasts during pre-sowing and pre-harvesting periods of mandatory crops of the state of Andhra Pradesh. The percentage validation of price forecasts are from 81 to 96 percent. Impact of forecasted prices on cotton farmers income during 2013-14 to 2015-16 was carried out in 5 mandals of Krishna zone in Andhra Pradesh given by the Agricultural Market Intelligence Center (AMIC) under Acharya N.G.Ranga Agricultural University. A sample of 50 farmers from 5 mandals was randomly selected for the purpose of the study. 56.25 per cent of the farmers could able to know the price forecast through media released by AMIC. About 31.25 per cent depended on telephone enquiries from AMIC and farmers’ training programmes conducted in the districts. The Department of Agriculture and marketing was the source of information for 12.5 per cent of the farmers. The farmers realised Rs.20547/- as additional revenue / hectare by adopting the forecasted prices in their selling decisions cotton. The benefit cost ratio of adopted farmers was 0.32 when compared to non adopted farmers of 0.11

Indian agriculture has been more supply driven during the last 50 years in preoccupation to steer the country to a self-sufficiency plank. The entire policies and programmes were focused at increasing the supply of food production in order to match the rising demand on account of the burgeoning population. Although food grain production quadrupled during the last 50 years, it failed to bring about a corresponding improvement in the standard of living of the vast majority of farm households, who depended on the agricultural sector for their livelihood security. This was mainly due to the failure of the agricultural marketing system, which provided no support to free the farmers from the clutches of the long middlemen chain in marketing his output to derive the full benefit of production advantages. The outlay of funds earmarked for marketing research in most agricultural universities in India is less than one per cent of their total R&D outlay. In many of the States, there is no separate Department of

Agricultural Marketing to streamline the agricultural marketing activities. In States where APMC Act is in vogue, the functioning of Regulated Markets/ Agricultural Produce Market Committees is neither satisfactory nor farmer friendly. It is mainly the village traders who transact in the name of farmers in APMC yards than the farmers selling agricultural produce. APMCs are not formulated in certain States like Kerala. In other words, agricultural marketing research and marketing extension are only in the beginning stages in India which directly affects the livelihood of millions of Indian farmers who are able to produce more and more in spite of their production problems like labour scarcity, power shortage, increasing pest and diseases attack besides vagaries of rainfall. The research managers continue to allot more funds for production, enhancing research at the cost of marketing research.

In addition, the forces within local agricultural markets in India were no longer isolated

from national, regional or even international forces. Now market prices and conditions of trade cannot any longer be determined by the forces of supply and demand within the boundaries of a local area or even a single country. The deregulation of markets, lowering of tariff barriers and convertibility of local currencies means that the price for any commodity is now affected by regional and international market forces.

Market information and intelligence inputs are thus crucial for farmers who wish to become fully market orientated and ensure that their production programmes are tuned with changing market demand and conditions. The availability of predicted reliable market information can assist farmers in optimizing their resources to: decide where to sell the produce; check whether or not the prices they are offered are in line with market prices; decide whether or not to store; decide whether to grow produce “out-of-season”; decide whether or not to grow different products; and could be helping in reducing risks.

The NAIP on “Establishing and Networking of Agricultural Market Intelligence Centres in India” started functioning from June 2009 to March 2014 in 11 State Agricultural Universities (SAUs) in 10 states of India. The Agricultural Market Intelligence Centre (AMIC) of S.V. Agricultural college, Tirupati as one of the co-operating center under NAIP has been releasing price forecasts during pre-sowing and pre-harvesting period of mandatory crops of the state of Andhra Pradesh. As the major thrust of the project is to release price forecasts well in advance of sowing and before harvesting, in tune with the same during the project period, 102 price forecasts were released for the mandate crops. The pre-sowing forecasts presented a view on the likely prices to prevail so as to enable the farms in taking sowing decisions. Similarly the farmers’ major dilemma at harvest is choosing right decision in disposal i.e. whether it is immediately after harvest or some time in future. Notable progress has been achieved with respect to price forecast and its dissemination through the print media, radio and the electronic media like TV. Innovative methods of dissemination like by giving short messages through cell-phones in the regional languages concerned have been perfected. As on date, every year 6.5 lakh farm families are receiving market intelligence through Voice Message in their regional languages. This was done in collaboration with IFFCO Kisan Sanchar Ltd, a

joint venture of Indian Farmers Fertilizers Co-operative and Bharati Airtel.

The study was conducted to assess the impact of cotton price forecasts made by AMIC, ANGRAU on farmers’ income in Krishna zone of Andhra Pradesh.

## **Results and Discussions**

Sampled farmers (Table-1) belong to middle age with primary education level. However, they have got vast experience in cotton cultivation. The average land cultivated under cotton is more than five acres. More than half of them had access to institutional loans.

In this particular study, 56.25 per cent of the farmers could able to know the price forecast through print and electronic media About 31.25 per cent depended on telephone enquiries from AMIC. The Department of Agriculture was the source of information for 12.5 per cent of the farmers.

### **Impact of forecasted prices**

The average net returns per ha for both adopted and non adopted farmers are positive indicating that cotton cultivation was somewhat profitable for the years 2013 to 2016 (Table 3). Moreover, two-third of the farmers have leased in the land to grow the crop and have also taken private loans besides banks to cultivate the crop. The farmers realised Rs.20547/- as additional revenue per hectare by adopting the forecasted prices in their selling decisions of cotton The farmers realised higher benefit cost ratio (0.32) when compared to non adapted farmers(0.11)

### **Price Realisation**

As per table 4, it is observed that the adopted i.e forecasted price known farmers had realised Rs.4675 per quintal which was 12.92 percent more compared to non adapted farmers i.eRs.4140/ql

The accuracy of the forecasts during the period ranged from a minimum of 80 per cent to a maximum 96 per cent. The minimum of 80 per cent accuracy was limited to only a very few number of forecasts and for most of the forecasts the average validity accuracy stood around 90 per cent.

The price forecasts estimated for different crops were disseminated through various modes like hard copies, emails, newspapers, TV, radio etc. Linkages have been developed with District

**Table 1. General information of sampled farmers**

S.No.	Particulars	Details/data
1	Avg. Age (years)	45.5
2	Education level	5.3
3	Experience in cotton cultivation (yrs)	19.2
4	Owner farmers (Nos)	15
5	Tenant farmers (Nos)	18
6	Owner who has also leased- in	17
7	Avg. size of operational holding (acres)	3.3
8	Accessibility to institution loans (Nos)	32
9	Possession of livestock	16

**Sources of price information:**

The sources of price information for the farmers are presented in Table-2

**Table -2: Source of accessing price forecasts by the sample farmers**

S.No	Source of Information	No. of farmers
1	Through print and electronic media	28 (56.25)
2	Through telephonic enquires to AMIC	16 (31.25)
3	Dept. of agriculture	6 (12.5)

**Table 3. Economics of adopted and non adopted farmers (From 2013-14 to 2015-16)**

Particulars	Adopted Farmers (n=50)	Non adopted Farmers (n= 25)
Total cost of cultivation (Rs/ha)	98110.00	99977.00
Yield (qtl/ha)	27.75	26.85
Price (Rs/qtl)	4675.00	4140.00
Gross returns (Rs/ha)	129731.25	111184.25
Net returns (Rs./ha)	31621.25	11074.25
Cost of production (Rs/qtl)	3535.50	3723.53
Benefit cost ratio	0.32	0.11
Additional revenue per hectare (Rs.)	20547.00	—

**Table-4. Average price (Rs/kg) realised compared to the previous years**

Particulars	2011-12	2012-13	2013-14	Avg. price
Adapted farmers	4750.00	4575.00	4700.00	4675.00
Non adapted farmers	4325.00	4040.00	4055.00	4140.00
% change	9.82	13.24	15.90	12.92

Agricultural Advisory and Technology Transfer Centres (DAATTs), KVKs, Regional Agricultural Research Stations (RARS) of ANGRAU, Department of Agriculture, Marketing, Market Committees etc.

Every price forecast released during pre-sowing and pre-harvesting has been sent to 6.5 lakh green card farmers of IFFCO KSL through voice SMS. All the forecasts are posted in the websites of ANGRAU and the state Dept. of Agriculture and Agropedia. They are also made available with ANGRAU's toll free call centre, Hyderabad. Farmers are getting the information from the University call centre.

### CONCLUSIONS

The adapted farmers wish to become fully market orientated and ensure that their production programmes are tuned with changing market demand and conditions. The availability of predicted reliable market information can assist farmers in optimizing their resources, realize remunerative prices for their products that results in profitable farming and improves the standard of living of farmers.

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