

Original Research Article

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## Relationship between Profile of Rainfed Cotton Growers and Perception of Contingency Crop

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### ABSTRACT

#### Keywords

Contingency crop plan, rainfed cotton growers, frost, hailstorms, heat waves, cold waves

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A contingency plan is a strategy that, intended to achieve a different result than what is typically or predictably anticipated. To put it another way, it is usually applied to risk management when a particularly high risk is present. The present study was conducted in Nanded district of Maharashtra and primary data was collected from 120 respondents by following personal interview method. The purpose of the present investigation is to focus on the relationship between the profile of cotton growers and perception. It was found that, annual income and land ownership, social participation, extension contact, cropping pattern and knowledge also had positive and significant relationships with perception of contingency crop plan. However, farming experience, education, family size and risk orientation had positive and highly significant relationships with perception of contingency crop plan.

### Introduction

In India, over two thirds of the populations rely on agriculture for their livelihood. It has been extremely clear in recent years how the country's agricultural production is affected by climate change and fluctuation.

In the largest portion of the country, extreme weather events like frost, hailstorms, heat waves, cold waves and droughts and floods occur frequently during the growth seasons for crops. Indian agriculture predominantly faces difficulties caused

by changing weather. These factors are translating into numerous macro and micro-level vulnerabilities. The main factors influencing rainfed farming in India include irregular rainfall patterns, severe drought at different periods of crop growth and then natural disasters like hailstorms. To better handle drought and rainfall variations at the farmer level, comprehensive crop planning and adjustments to agronomic methods are required.

India has created adaptable systems to deal with livestock and crop failures using a variety of techniques. Contingency crop planning will require

a larger focus in these places because *kharif* cropping is a key activity in the rainfed areas of arid lands, where monsoon unpredictability plays a crucial role in production.

In Maharashtra, the drought situation is critical. The state has reserves of 7.00 per cent of the necessary water. The majority of Maharashtra's districts have been identified as drought-affected in areas with the most severe damage, such as Marathawada.

Tanker mafias have been able to grow their illicit activities because of the inadequate water supply. The effects of the drought will continue to hurt the residents of Marathawada and Vidharbha in Maharashtra for a little while longer.

## **Materials and Methods**

The present investigation was conducted to study the 'Perception of contingency crop plan by rainfed cotton growers.' Ex-post facto research design is the description of the present situation as an effect of some previously acting causal factors and attempt to trace back over an interval of time to some assumed causal complex of which began operating at an earlier date.

Study will be conducted on the basis of maximum area under drought in one district of Maharashtra. In Nanded district two tehsils which was selected purposively and five villages selected randomly from each tehsil. Primary data was collected from 120 respondents selected by random sampling method by following personal interview method.

The information was gathered using a personal interview schedule and direct interaction with the selected farmers. When approaching the farmers in such an attempt to establish a relationship with them in order to obtain more trustworthy information, the assistance of local leaders, Gramsevakas, Talathies and Agricultural Assistants from the State Department of Agriculture and Revenue was taken into consideration.

## **Results and Discussion**

### **Relationship between profile of rainfed cotton growers and perception of contingency crop plan**

The data relating to the relationship between the profile of rainfed cotton growers and the magnitude of the dependent variable were subjected to correlation analysis.

### **Correlation analysis**

Correlation coefficient was computed to ascertain the relationship between perception and independent variable. The results are furnished in Table 4.13. It is evident from table 1 that the results of correlation coefficient showed that all independent variables were positive and significant relationship with perception of contingency crop plan by rainfed cotton growers of improved cotton cultivation practices.

### **Farming experience and perception**

The information in table 4.13 demonstrated that there was a positive and highly significant correlation between farming experience and cotton growers' perceptions of contingency crop plans of improved cotton cultivating practices. This indicates that the perception of a contingency crop plan using improved cotton growing techniques increased as cotton growers' degree of farming experience increased. This finding consistent with the Deshmukh (2012).

### **Education and perception**

The information in table 4.13 showed that there was a positive and very significant correlation between education and cotton growers' perceptions of improved cotton growing methods in contingency crop plans. This indicates that the perception of a contingency crop plan for improved cotton growing techniques increased with higher levels of education. This result is in line with those presented by Bhalerao (2010).

### **Family size and perception**

The data presented in table 4.13 showed that there was a positive and highly significant correlation between family size and cotton growers' perceptions of improved cotton growing practices and contingency crop plans.

It was evident that there was a strong correlation between perception and family size. Families with larger numbers of members may engage in more social interaction. Therefore, the perception of a contingency crop plan is significantly influenced by family size. This outcome is in accordance with the Bhalerao (2010).

### **Annual income and perception**

The data shown in table 4.13 revealed a positive and significant correlation between annual income and cotton growers' perceptions of contingency crop plans and improved cotton growing practices.

An individual with a higher income is more socially engaged, has greater social connections and is more adaptable. The most likely explanation for this is because farmers have better annual incomes, which facilitates more efficient and prompt input purchases, proper information resource use and desired technical assistance of which are essential adoption drivers for new innovations. Therefore, the use of contingency measures was highly influenced by annual income.

The findings of this research support that of Marathe (2004); Bhalerao (2010).

### **Land holding and perception**

The data from table 4.13 showed that there was a positive and significant correlation between landholdings and cotton growers' perceptions of

improved cotton farming practices and contingency crop plans.

This demonstrated clearly that when land ownership increases, tends to increase perception. Land holding may have established a positive and highly significant correlation with perception of a contingency crop plan because respondents with bigger land holdings might afford to adopt contingency crop plan measures.

This conclusion is in agreement with those made by Marathe (2004); Bhalerao (2010); Subhash (2012) and Sawant (2013).

### **Social participation and perception**

According to the information in table 4.13, rainfed cotton growers' perceptions of improved cotton growing practices and social participation are positively and highly significantly correlated.

This indicates that greater social participation increased the impression of enhanced cotton cultivation techniques as a contingency crop plan. This conclusion might be explained by the fact that rainfed farmers who engage more in formal and informal groups tend to have broader perspectives, which helps them to become aware of new innovations and the way they are perceived.

This result is compatible with those reported by Bhalerao (2010).

### **Extension contact and perception**

From the findings in table 4.13, there was a positive and highly significant correlation between extension contact and growers of rainfed cotton's perceptions of contingency crop plans that involved improved cotton cultivation techniques.

**Table.1** Relationship between profile of cotton growers and perception of contingency crop plan

SL. No.	Independent variable	Correlation coefficient ('r')
1.	Farming experience	0.412**
2.	Education	0.544**
3.	Family size	0.379**
4.	Annual income	0.200*
5.	Land holding	0.195*
6.	Social participation	0.254*
7.	Extension contact	0.220*
8.	Mass media exposure	0.384**
9.	Cropping pattern	0.215*
10.	Knowledge	0.201*
11.	<b>Risk orientation</b>	<b>0.347**</b>

\* = 0.05 per cent level of significance

\*\* = 0.01 per cent level of significance

It is clear that cotton growers who have greater contact with extension agencies are generally more likely to acquire knowledge, skills and other aspects related to businesses. Thus, in this study, a favourable and very significant association between contact with an extension agency and perception of a contingency crop plan had been established. Similar findings were noticed by Anna (2013).

### Mass media exposure and perception

The data listed in table 4.13 indicated that there was a positive and highly significant correlation between exposure to the mass media and growers of rainfed cotton's perception of improved cotton growing techniques in contingency crop plans. This shows that the perception of a contingency crop plan for improved cotton cultivation methods was higher the more cotton growers were exposed to the mass.

Media about better cotton cultivation practices. Similar findings have been reported by Nimbkar and Pawar (1994); Patil (1994) and Subhash (2017).

### Cropping pattern and perception

The information in table 4.13 indicated that there was a positive and significant correlation between cropping patterns and how rainfed cotton growers

perceived contingency crop plans as improved cotton cultivation techniques. It could be argued that planting crops at varying periods of the year encourages farmers to consider contingency crop plans. This may be the cause of the positive and highly significant association between cropping pattern and the perception of a contingency crop plan. The same results were discovered by Chavhan (2014).

### Knowledge and perception

The information in table 4.13 showed that there was a positive and significant correlation between growers of rainfed cotton's knowledge and perception of contingency crop plans for more successful cotton farming practices. The most likely explanation is that knowledge expands one's mental horizon, which acts as a catalyst in changing a farmer's behaviour and has a big impact on their perception of a contingency crop plan. These findings concur with those of Barman and Kumar (2010) and Triveni *et al.*, (2018).

### Risk orientation and perception

The data listed in table 4.13 highlighted that there was a positive and highly significant correlation between risk orientation and growers of rainfed

cotton's perception of contingency crop plans as more effective methods to cultivate cotton.

The perception of an improved cotton cultivation method under a contingency crop plan was higher the greater the risk preference.

Regarding the relationship between the profile of cotton growers and perception, it was found that, annual income, land ownership, social participation, extension contact, cropping pattern and knowledge also had positive and significant relationships with perception of contingency crop plan. However, farming experience, education, family size and risk orientation had positive and highly significant relationships with perception of contingency crop plan.

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