



A Study on Factors Responsible for Influencing Farmer's Awareness on Climate Variability in Castor

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ABSTRACT

The Study was conducted in Mahaboobnagar district of Andhra Pradesh to identify the factors responsible for influencing farmer's awareness to climate variability in castor. Data were collected from a randomly selected 120 castor farmers of Amanagal, Deverakadra, Bejenepally and Achampet manadals of Mahaboobnagar district by personal interview method using pretested interview schedule. The results indicated that age, education, climate change awareness, agro ecosystem, land size, investment back on farming, socio-political participation, mass media exposure, innovativeness and farming experience were the factors positively and significantly influence the farmer's awareness to climate variability.

Keywords :

Introduction

Castor (*Ricinus communis* L.) is an important crop in the Mahaboobnagar district of Andhra Pradesh state. The total area under castor cultivation in Mahaboobnagar is 90.25 mt and the productivity is 733 kg/ha. Area under castor in Mahaboobnagar district is going down due to drought, fear of *botrytis* and competitive crops like Bt Cotton and Maize. The humid and cloudy weather during cyclonic showers in Andhra Pradesh during September-November, when the *kharif* sown castor is in flowering and at capsule formation stage completely devastates the crop due to occurrence of fungal disease (*botrytis*). The major limitation of crop is with *botrytis* grey rot which is threatening crop's continuance, high temperature above 41°C at flowering time even for a short period result in blasting of flowers and poor seed set. In view of the above aspects the present study conducted to know the factors influencing farmer's awareness to climate variability in castor.

Material and methods

An *Ex-post facto* research design was adopted in the present investigation. Mahaboobnagar district of Telangana region of Andhra Pradesh state was purposively selected for the study. Four manadals and three villages from each mandal making a total of 12 villages were selected at random. The selected villages were Shettipally, Akuthotapally and Jangireddypalli from Amanagal manadal; Nagaram, Dokur and Marrikal from Deverakadra manadal; Gangaram, Boyapally and Mahadenpet from Bejenepally mandal; whereas Chitlankunta, Uppunthala and Padara were selected from Achampet manadal. From each selected village, 10 farmers were selected by random sampling method, making a total sample size of 120. Data were collected from the respondents to know the factors influencing farmer's awareness to climate variability in castor.

Results and discussion

It is revealed from the Table that, the calculated values between level of awareness on climate variability and profile characteristics like age, education, climate change awareness, agro ecosystem, land size, investment back on farming, socio-political participation, mass media exposure and innovativeness were greater than table 'r' value at 5 per cent level of probability, where as the calculated 'r' value is greater than table 'r' value at 1 per cent level of probability in case of farming experience. Hence, null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it can be con-

cluded that there was significant relationship between above characteristics and level of awareness. This may be due to the reason that as age increases an individual encounters many situations, there by his comprehension ability enhances and mental horizons will be widened. So as the age of castor grower increases his level of awareness also increases. Education has a direct bearing on awareness because an educated person can search and browse various sources of information and enriches his knowledge base. An educated castor farmer will be having high level of awareness on happenings in climate variability. The awareness on changes in climate at global level or at macro level facilitates and empowers a farmer to understand and perceive greatly the changes in climate at micro level. As the farmer habituated to practice the application of bio fertilizers, bio pesticides, organic manures and other eco-friendly technologies, the agro ecosystem around his farm develops and their by his level of awareness on climate variability improves.

The level of awareness on climate variability improves as part of the income received from the castor produce is again invested back in to the farming. As the investment increases the overall capacity of the farmers may increase and thereby they could be able to harness information from various sources for better crop production. As the farmer involved as a member or office bearer in various organizations prevailing in the rural areas, he shall be in touch with the current scenario of agriculture at domestic, national and international level, in this way his involvement/participation in the group enhances the level of awareness on issues of climate variability. Mass media is one of the best channels one can rely upon to acquaint with the recent happenings in climate. Hence, the longer the exposure to mass media, the more the level of awareness (Sampei and Aoyagi-Usui 2009; Kandlinkar and Risbey 2000). The curiosity, initiative and spirit of experimenting any new idea in his own farm drives the farmer to get aware of information pertaining to the climate variability. As the experience of the farmer is more, he might have exposed to various situations, witnessed many weather extremes and have experienced various conditions where the climate affects the farming. (Maddison. 2006; Ishaya and Abaje 2008). All these would have empowered the farmers and there by more the level of awareness on climate variability.

On the other hand the calculated 'r' values between level of

awareness and training received, soil type, irrigation potential, land degradation, plant protection equipment status, farm implements and machinery status, live stock, income from agriculture, expenditure on education, saving from agriculture, self confidence and risk taking ability were less than table 'r' value. Hence null hypothesis accepted and empirical hypothesis was rejected. Therefore, it can be concluded that there was no significant relationship between above characteristics and level of awareness.

Conclusion:

Based on the results it can conclude that the government should initiate the steps to provide education for all the people in the rural areas. The farmers may be sensitized to have the membership in many of the social organizations, they should be motivated to experiment with the new ideas and they may be oriented to be in touch with the mass media. All these endeavours will enhance the level of awareness of the farmers on climate variability.

Table. Correlation coefficient values between selected profile characteristics of castor growers and level of awareness to climate variability in castor

S. No.	Variables	Level of awareness
1.	Age	0.2091*
2.	Education	0.2211*
3.	Farming experience	0.2982**
4.	Training received	0.0128 ^{NS}
5.	Climate change awareness	0.1983*
6.	Soil type	0.1732 ^{NS}
7.	Irrigation potential	0.1334 ^{NS}
8.	Agro ecosystem	0.2165*
9.	Land degradation	0.1821 ^{NS}

10.	Plant protection equipment status	0.1682 ^{NS}
11.	Farm implements and machinery status	-0.1591 ^{NS}
12.	Land size	0.2106*
13.	Live stock	0.0843 ^{NS}
14.	Income from agriculture	0.1778 ^{NS}
15.	Investment back on farming	0.2152*
16.	Expenditure on education	0.1209 ^{NS}
17.	Saving from agriculture	0.1492 ^{NS}
18.	Socio-political participation	0.2092*
19.	Mass media exposure	0.2116*
20.	Self confidence	0.1504 ^{NS}
21.	Risk taking ability	-0.1184 ^{NS}
22.	Innovativeness	0.2315*

* Significant at 5 per cent level of probability,

** Significant at 1 per cent level of probability

NS - Non significant

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