

## **Farmers adoption of Sustainable Water Management Practices (SWMP) in sugarcane**

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### **ABSTRACT**

The research study was conducted in Belgaum and Bagalkot Districts of Karnataka during 2005-2006, with the sample size of 180 respondents. The ex-post-facto research design was used for the study. The findings revealed that sixtyseven per cent of respondents irrigated cane in 10-15 days interval, majority adopted furrow method of irrigation, one - third of respondents were aware of soil affected by salt or salinity. Where as sixty per cent of the respondents experienced water shortage condition, around half of the respondents practised trash mulching followed by only ten per cent applied 25% extra potash to over come water deficit. Education, farming experience, risk orientation, scientific orientation, attitude towards SWMP, management orientation, extension contact and organizational participation of the respondents had positive and significant relationship with their adoption of SWMP. Multiple in regression indicated that the seventeen independent variables put together had contributed 38.61per cent variation ( $R^2=0.3861$ ) in extent of adoption of SWMP.

**Key words :** Farmers adoption, Sustainable Water Management Practices, Sugarcane.

**A**griculture is the predominant sector of Indian economy that meets the basic requirements, food, clothing and shelter of the people, which contributes 26 per cent to national income (Anonymous, 2002). India has a wide diversity of crops, among them food grains occupy a major portion of the land area, while sugarcane and fibre crops contribute major portion of the land area, while sugarcane and fibre crops occupy relatively lesser acreage. Inspite of low acreage under sugarcane, it commands greater significance due to the remarkable contribution to our national economy through foreign exchange earnings. In the recent past, though the productivity of these crops has increased, the magnitude has been very small. In order to increase our national income, the sustainable production of such cash crops is imperative because of importance in foreign exchange earnings. Hence, the study was undertaken to analyse the extent of adoption of sustainable water management practices (SWMP) by sugarcane growers.

### **METHODOLOGY**

The present study was conducted in 2004-05 in Belgaum and Bagalkot districts of Karnataka. These districts were purposively selected as they stand first and second in sugarcane area in Karnataka. The ex-post-facto research design was used for the study. Two Taluks having maximum area under sugarcane were selected from each districts. The selected Taluks were Athani and Chikodi

from Belgaum district and similarly, Mudhol and Jamakhadi from Bagalkot district. Three villages from each Taluk were selected randomly for the investigation, fifteen respondents were selected from each villages thus total sample size contributed 180 respondents. There were seventeen independent variables used directly to findout correlation with the extent of adoption by sugarcane growers about SWMP. The required data from the respondents were collected with help of pretested interview schedule. The extent of correlation and mutiple regression between the independent variables was ascertained by using suitable statistical tool.

### **OBSERVATION AND DISCUSSION**

#### ***Extent of adoption of sustainable water management practices by sugarcane growers:***

It is evident from Table 1 that 67.78 per cent of the respondents had irrigated sugarcane crop with the interval of 10-15 days. The possible reason is that majority of the respondents were aware of the schedule of irrigation in black soil by their experience. Majority (93.33%) of the respondents had realized that furrow method of irrigation was the best method to irrigate sugarcane, hence the same they had adopted. About 34 per cent of respondents had the problem of saline soils. Among these respondents, only 3.22 per cent of respondents had changed the salt affected water with fresh water frequently. It is necessary to conduct adequate field visits, and follow up measures should be made by the local extension workers to render possible guidance and further motivation for the full adoption of practice on sustainable basis.