

Performance of major cereals in Marathwada region

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ABSTRACT

The study was conducted in districts of Marathwada region to see the performance of major cereals in respect of area, production and productivity. Major cereal crops viz., *Kharif* sorghum, pearl millet, wheat and *Rabi* sorghum and total cereals were selected for study. Time series data for the period from 1985-86 to 2004-05, regarding area, production and productivity were collected from Epitoma of Agriculture, published by Government of Maharashtra. The compound growth rate was worked out by fitting exponential trend equation and significance was tested with help of correlation coefficient by using 't' test. The results of study revealed that majority of districts showed decline in area under *Kharif* sorghum, *Rabi* sorghum and total cereals, whereas the area and production increased in case of pearl millet and wheat during the study period. Stagnation in productivity of *Kharif* sorghum was observed during the study period while productivity of pearl millet, wheat and total cereals raised in region and State.

INTRODUCTION

Importance of foodgrains in world economy is being recognized and there is urgent need to raise foodgrains production, in view of large gap between demand and supply of foodgrains. The foodgrains comprise cereals and pulses. Among cereals rice, wheat, maize and the coarse grains like sorghum, pearl millet, barley etc. are the major crops. Cereals form an important ingredient in the vegetarian diet and they are also rich source of energy, minerals and contain vitamins. The major cereals growing States in India are Tamil Nadu, West Bengal, Punjab, Uttar Pradesh, Maharashtra, and Madhya Pradesh. Karnataka, Rajasthan and Bihar, which together account for 70 per cent of area under total cereals crops.

Maharashtra is the largest producing State of coarse cereals with 19.35 per cent share of production to all India level. During 2006-07, the area, production and yield of cereals recorded up to 9.56 million ha., 10.47 millions tonnes and 1095 kg/ha, respectively. Nearly one third area of the State falls under rainshadow region, where rain is scanty and erratic. The productivity level in the State are much below the national average. In spite of huge investment in irrigation sector, the area under irrigation and production has practically remained at low level. Keeping in view the above importance the present study has been under taken to study the performance of major

foodgrains in respect of area, production and productivity.

METHODOLOGY

For study purpose, the major cereal crops viz., sorghum, pearl millet, wheat and *Rabi* sorghum and total cereals were selected. All the eight districts of Marathwada region viz., Aurangabad, Jalna, Latur, Osmanabad, Parbhani and Hingoli, Nanded and Beed were selected purposively. The time series data on area, production and productivity were collected from Epitoma of Agriculture, published by Government of Maharashtra for the period of 20 years i.e. from 1985-86 to 2004-05. For accessing performance of major cereals in respect of area, production and productivity, exponential trend equation was fitted and the compound growth rate was worked out:

$$\hat{y} = ab^t$$

where

\hat{y} = estimated area/production / productivity

a = constant

b = regression coefficient

t = time variable in year

After transforming into a linear form by taking logarithms.

$$\log y = \log a + t \log b$$

on writing $A = \log a$ $B = \log b$ and $Y = \log y$ this becomes

Key words :

Compound growth rate,
Performance,
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