



Performance of chickpea production in Akola district of Maharashtra

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ABSTRACT

Chickpea (*Cicer arietinum* L.) is the premier pulse crop of Indian subcontinent. India alone has nearly 75 per cent of the world acreage and production of gram. The present study is an attempt to evaluate the growth and instability of such important crop *i.e.* chickpea. For the present study, Akola district from Maharashtra state was chosen purposively as area under chickpea is reported highest in this district. The study was based on secondary data pertained to the year 1985-86 to 2005-06. The results revealed that chickpea is a most important crop in Akola district, the growth rates for area and production of chickpea were found significant. Instability studied in chickpea indicates that productivity under chickpea exhibited less variation. It means that production of chickpea over the period has been almost constant.

KEY WORDS : Flora, Soil properties, Gorewada forest

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INTRODUCTION

Chickpea (*Cicer arietinum* L.) commonly known as gram or Bengal gram is the most important pulse crop of India which alone has nearly 75 per cent of the world acreage and production of gram. Gram occupies about 37 per cent of area under pulses and contributes about 50 per cent of total pulse production of India. It is used for human consumption as well as feeding to animals.

An agricultural sector being unstable in nature may substantially impede the economic growth of the country. The spectacular performance of agricultural sector primarily is determined by the generation and sustenance of growth in production. The production instability tends to be transmitted to the markets and may cause wide fluctuations in prices of agricultural commodities (Marawar *et al.*, 2003). With this view, it is essential to study the growth and instability of chickpea production in Akola district of Maharashtra.

The present study was planned with the objective are as : to study the growth rates of area, production and productivity of chickpea in Akola district of Maharashtra and to study the degree of instability in area, production and productivity of chickpea in Akola district of

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MATERIALS AND METHODS

The study covered a 21- year period of study predominantly based on secondary data pertaining to the year 1985-86 to 2005-06. Data on area, production and productivity of chickpea were collected from various issues of epitome of agriculture. The entire study was splited into two sub periods. The growth rates were calculated separately for the overall period (1985-86 to 2005-06) and for two sub periods, periods I (1985-86 to 1995-96) and period II (1996-97 to 2005-06). In order to study the instability in area and productivity which are the major sources of production instability. The Coppock's instability index, coefficient of variation was estimated for the study period.

Estimation of growth rates:

The growth rates in area, production and productivity were studied estimating compound growth rates at different periods. Both linear and compound growth rates were estimated. However, finally the compound growth rate was used for the study.

The growth rate was estimated using exponential trend model.

$$Y = a \cdot b^t$$

where,

Y = Area / production / productivity

a = Intercept