

Research
Paper

Growth and instability of selected crops in Western Vidarbha

N.V. SHENDE, B.N. GANVIR AND S.S. THAKARE

See end of the article for authors' affiliations

Correspondence to :

N.V. SHENDE
Department of Agricultural
Economics and Statistics,
Dr. Panjabrao Deshmukh
Krishi Vidyapeeth, AKOLA
(M.S.) INDIA

ABSTRACT

An attempt has been made to study the growth and instability of major crops in western Vidarbha. The study was based on the secondary data on area, production and productivity of jowar, cotton and soybean collected from the various Government publications. The study revealed that the compound growth rates for area and production of jowar were recorded near about equal which may be due to the compound growth rates of productivity. The growth rate for area and production for soybean was recorded very high during period I, which may be due to introduction of soybean in the year of the period I. The coefficient of variation and Coppock's instability index with regards to both area (8.43 and 10.47 per cent) and productivity (20.29 and 12.40 per cent) were lowest in Yavatmal district among the jowar growing districts of Amravati division. Coefficient of variation and instability for area, production and productivity were high for soybean as compared to jowar and cotton at overall period. At overall period, the area effect was most stronger factor for increasing production of jowar in all the districts and division as a whole, except Akola district *i.e.* - 305.22 per cent. At overall period, the results clearly indicated that the yield effect was most responsible for production of cotton in all the districts of Amravati division as a whole and the area effect was most responsible factor for increasing soybean production in Amravati division *i.e.* 46.98 per cent with positive yield and interaction effect *i.e.* 1.91 and 51.41 per cent, respectively.

Shende, N.V., Ganvir, B.N. and Thakare, S.S. (2011). Growth and instability of selected crops in Western Vidarbha, *Internat. Res. J. agric. Eco. & Stat.*, 2 (1) : 19-27.

Key words : Growth rate, Instability, Production, Productivity, Vidarbha

INTRODUCTION

Agriculture in India continues to hold the important place in Indian economy, where about 90 per cent of population is leaving in rural areas out of which 65 per cent of total population depends on agriculture. Agriculture sector employees around 50 per cent of labour force on total of 163 million hectares out of 328.7 m ha of land. It contributes about 40 per cent to the national income and its developments. Therefore, it is indispensable to feed the increasing demand of vast population.

In a developing economy like India, growth leads to the building up of pressures on agriculture on account of the rising demand for agricultural products. This process is accelerated by the rapid growth of population accompanied by rising levels of income. Does supply of agricultural products respond to rising demand for them? This question becomes critical and assumes central

importance and hence calls for the efficient utilization of resources.

MATERIALS AND METHODS

Selection of crops:

For the present study, the major crops of western Vidarbha *viz.*, jowar, cotton and soybean were selected purposively. The selected crops occupied more than 90 per cent of the gross cropped area.

Selection of period:

For the growth rates and decomposition analysis, the period was divided into breakup of 12 years and overall as shown below:

Period I – 1984-85 to 1994-95

Period II – 1995-96 to 2006-07

Overall III – 1984-85 to 2006-07