

Growth, instability and price analysis of pigeonpea (*Cajanus cajan* L.) in Marathwada region

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ABSTRACT

In present study an attempt has been made to estimate growth and magnitude of variability in area, production and productivity of pigeonpea, seasonal variation and relationship between market arrivals and prices of pigeonpea in Marathwada region of Maharashtra State. Time series data for the period 1985-86 to 2004-05 regarding area, production and productivity were collected from Epitoma of Agriculture, published by Government of Maharashtra. The data regarding arrivals and prices were collected from four APMCs viz., Latur, Udgir, Osmanabad and Paranda for the same period. Compound growth rate, coefficient of variation, ratio to moving average method and double log model were used for achieving the objectives. The result revealed that among the districts Jalna and Nanded showed significant positive growth in area and production of pigeonpea, while all districts and region recorded higher variability in area, production and productivity of pigeonpea. The maximum arrivals of pigeonpea was recorded in month of January in all the selected markets, while significant negative relationship between arrivals and prices of pigeonpea was observed in Latur market.

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INTRODUCTION

Pulses are the major food crops from ancient period, which are the rich and cheapest source of dietary protein and valuable animal feed. Among the pulses pigeonpea or arhar or tur (*Cajanus cajan*) is the important pulse crop in India. Because of multiple use as food, feed, fodder and fuel, it has prime position in prevailing production system. Because of high protein content, pigeonpea is exclusively consumed as "Dal."

In Maharashtra nearly one third area of state falls under rain shadow region, where rain is scanty and erratic. As a result, agricultural growth in state remained vulnerable. In spite of huge investment on irrigation sector, the area under irrigation, production and productivity had practically remained at low level. The seasonal price variation observed for the pulse crops mainly because of wide variation in output of these crops which leads to wider fluctuation in arrivals. In order to device appropriate ways and means for reducing degree of fluctuations in prices, it is necessary to study the seasonal variation in market arrivals and prices of major pulses like pigeonpea. Keeping in the view above importance in relation to growth, instability, seasonal variation and relationship between market arrivals and prices, the present study

has been under taken with following specific objectives : to study performance of pigeonpea in respect of area, production and productivity, to the study variability in pigeonpea over a period of time, to the study seasonal variation in market arrivals and prices of pigeonpea and to the study relationship between market arrivals and prices of pigeonpea.

METHODOLOGY

Marathwad region was selected purposively for the study purpose. All the eight district of Marathwada region were selected for study. The analysis is primarily based on secondary data related to area, production and productivity of pigeonpea. The data were collected from the Epitome of agriculture for the period of 20 years i.e. from 1985-86 to 2004-05. To study the performance of pigeonpea exponential trend equation was fitted and the compound growth rate was worked out.

$$Y = ab^t$$

where, Y = estimated area/ production / productivity

a = intercept

b = regression coefficient

t = time variable in year

Annual compound growth rate (CGR) was worked by the formulae:

Key words :

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