



Research Paper

Variability and instability in growth of inter crop in the district of Karnataka

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ABSTRACT : The study the growth of food grains production in Karnataka was carried out at college of Agriculture, Dharwad during 2000. In this study 6 crops were studied namely rice, jowar, ragi, bajra, maize and wheat from 19 districts of Karnataka about area, production and productivity for the period of 22 years from 1976-77 to 1997-98. The data has been collected from the crop reports compiled by the Bureau of Economics and Statistics, Bangalore. Growth rates of these crops were found out by using Semi log quadratic function, variability between two periods by Mann-Whitney test and variability between districts and crops by friedman two way analysis. Among the cereals considered for study, area under rice, Jowar, ragi maize crops showed increasing trend in almost all districts of Karnataka while, bajra and wheat crop showed decreasing trend. During period I these crops showed decreasing trend during period II. Bellary, Bidar and Raichur districts showed significant acceleration trend for area of rice crop in period I, while, in period II some districts showed deceleration trend except Raichur district. The productivity of jowar in period I showed acceleration trend in almost all districts of Karnataka. In period II Bidar, Bijapur, Chitradurga, Gulbarga, Mandya and Raichur districts showed significantly acceleration trend for yield of jowar crop. The growth rate of area of ragi crop indicated that there was in increase in the growth of area in the state as a whole during period I when compared to period II. But the productivity of this crop showed deceleration trend in period I when compared to period II. The area under bajra crop in both period I and period II showed declining trend. The productivity of this crop showed acceleration trend in period I when compared to period II. The area under maize increased during period I when compared to period II. However, the yield increased at a higher pace during the some period. The districts which recorded significant rise in the area were Bangalore, Belgaum, Bellary, Bijapur, Chitradurga, Dharwad and Gulbarga. The area under wheat crop decreased in the state during period I compared to period II. In rice, Jowar, and wheat there was greater variability during period II while, in ragi, bajra, maize there was greater variability during period I when compared period II.

KEY WORDS : Growth, Food grains, Mann-Whitney, Friedman, Crop variability

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INTRODUCTION

The year to year fluctuations in crop production is quite common in Indian agriculture. These fluctuations adversely affect the production, employment and income distribution and there by hamper the economic growth of the country. The total food grains production and cereal production in India yielded and annual growth rate of 1.84 and 1.66 per cent for the year of 1997-98. The production of food grains in the country fell to 192.4 million tonnes in 1997-98 from 199.4 million tonnes in

1996-97. According to ninth plan projection on earlier estimate by the end of the ninth plan, the demand for foodgrains in India is expected to rise to 220 million tonnes, 185 million tonnes for house hold consumption, 27.5 million tonnes for food processing industries and 7.5 million tonnes for export. To meet this demand, the area under foodgrains has to be raised 120 million hectares besides affecting the usual increases in the yield through the use of better quality seeds and effective pest and disease control. The per capital net availability of foodgrains, cereals and pulses in India is the 484.1 g/day, 450.9g/