

Analysis of Spatial and Temporal Variations in Area, Production and Productivity of Tobacco in Prakasam District of Andhra Pradesh

N S R Jogamba, V Srinivasa Rao, Sk Nafeez Umar and G R Reddy

Department of Agricultural Statistics & Mathematics, Agricultural College, Bapatla 522 101

ABSTRACT

This paper attempted to identify the spatial and temporal variations in tobacco area, production and productivity of Prakasam district of Andhra Pradesh on the basis of 28 years of secondary data covering the years from 1987 to 2014 by using the graphical approach. The growth rates were also calculated by using the Compound Growth Rate (CGR) function. The influence of area and productivity on production was studied separately by fitting a simple Linear regression Equation. Forecasting of tobacco production was done by using spline regression and conventional models. The results of the study showed that there were a positive shifts in area, production and productivity for the crops during the two periods.

Key words: *Compound Growth Rates, Karl Pearson's correlation coefficient, Multiple Linear regression, Spline Regression, R^2 .*