

**DEPARTMENT OF AGRICULTURAL ECONOMICS
COLLEGE OF AGRICULTURE
JUNAGADH AGRICULTURAL UNIVERSITY
JUNAGADH – 362001**

Name of the student

Shilpa V.C.

Major Guide

Dr. N. J. Ardeshta

**GROUNDNUT PRODUCTION DYNAMICS DURING PRE AND POST-
LIBERALIZATION ERAS: A CASE OF GUJARAT**

ABSTRACT

Key words: Groundnut, growth rate, fourier analysis, instability, profitability analysis, resource use efficiency.

India ranks first in the world in terms of acreage of groundnut and second in production, next to china. The changes in macroeconomic policies and trade liberalization across the world have given more importance to competitiveness in agriculture. Thereby, it is pertinent to emphasize on the efficient use of scarce resources for improving farm efficiency. In this connection, the study on “Groundnut Production Dynamics During Pre and Post-Liberalization Eras: A case of Gujarat” was undertaken with the main objectives to assess the growth dimensions, cyclical variations, instability in production, profitability analysis and resource use efficiency in groundnut production.

The secondary data on area, production, yield and cost of cultivation were collected in Gujarat for 36 years from the year 1980-2016. It was analyzed using percentage analysis, linear and compound growth rate, fourier analysis, Hazell’s decomposition analysis for instability, Cobb-Douglas production function and stepwise regression and backward elimination for resource use efficiency analysis in groundnut production.

Among area, production and productivity the highest per cent change (135.35 %), linear (38.29 % / annum) and compound (3.85 % / annum) growth rates were noticed in yield during Overall Period while the highest variation was in production (59.15 %). The fourier analysis indicated that the 3 year cycle of groundnut production and 10 year cycle of groundnut productivities time series data should be used for obtaining reliable and accurate farm plans under different types of risk.

The decomposition analysis revealed that the change in mean production of groundnut was mainly due to the change in mean yield. The study revealed that more hired human labour were employed for cultivation and the growth in value of labours and per cent change in different costs and returns during Pre-Liberalization Period were less as compared to Post-Liberalization Period. Irrigation had showed positive effect which revealed that the farmers used more water for obtaining better yield and less quantity of chemicals. There was similar increase in cost of cultivation which indicated that increase in gross return was not benefitted the farmers. The study revealed that highest per cent change and variation were found in MSP during Overall Period. The compound growth of FHP and MSP indicated that there was more rapid increase in FHP and MSP during the recent years.

The Benefit cost ratio (BCR) during Post-Liberalization was found to be more (1.79) compared to the BCR during Overall Period (1.87). It means that the profits were found to be higher during Post-Liberalization compared to Overall Period. The results showed that profitability was more sensitive to the change in yield and output price of groundnut and farmers would be affected by output price and cost of labour. In Cobb-Douglas production function family labour, hired human labour, manures and plant protection chemicals were significant during Post-Liberalization Period whereas family labour, hired human labour, seeds, irrigation were significant during Overall Period.

The MVPs of family labour, hired human labour, seeds and plant protection chemicals were found to be underutilized while the MVPs of bullock labour, chemical fertilizers, manures, irrigation and other expenses were found to be overutilized during Post-Liberalization Period. As far as the Overall Period is concerned, MVPs of family labour, hired human labour, bullock labour, manures and irrigation were found to be underutilized while the MVPs of seeds, chemical fertilizers, plant protection chemicals and other expenses were found to be overutilized.