



profitable as compared to NU. The total cost of cultivation of paddy (Rs 10619/acre) was found to be more as compared to soybean (Rs. 9776/acre). The expenditure on ploughing & sowing (14.19%), harvesting & threshing (13.16%), fertilizers-other than Urea/NCU (12.82%), family labour (11.7%) and hired labour (11.44%) were found to be major component of cost of cultivation of paddy, while the expenditure on seed (22.49%), hired labour (20.41%), family labour (13.65%), fertilizer-other than urea) (12.34%), harvesting & threshing (8.51%), plant protection chemicals (6.82%) and ploughing & sowing (6.15%) their found to be major component of cost of cultivation of soybean during the year 2015. An average farmer also received more net return in cultivation of paddy (Rs. 10015/acre) as compared to soybean (Rs. 7909/acre). On in investment of Re 1.00 he was also found to be got more return in paddy (Rs 2.06) as compared to soybean (Rs. 1.83) respectively. Although, no remarkable difference were found to be observed in cost incurred and profit received by an average farmer in cultivation of paddy and soybean in the area under study.

## **ESTIMATION OF TOTAL FACTOR PRODUCTIVITY GROWTH OF MAIZE PRODUCTION IN CENTRAL INDIA**

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### **Abstract**

Maize popularly known as “corn” is one of the most versatile emerging cash crop having wider adaptability under varied climatic condition. It is called of cereals globally .In India, maize is the third important food cash crops after wheat and rice. Present investigation shows that output index was highest during 2002-2011 (3.047). TFP growth was positive during all the period of time and highest growth rate during 2002-2011(3.195). But still fertilizer is the principal source of growth for maize crop. This indicates that in future more fertilizer responsive varieties will determine the positive growth of maize. It accounts for 9 per cent of total food grain production in the country. By cultivating maize, farmers can protect the worsening quality of soil as well as other factor, which affect the productivity.

## **PEST AND PREDATOR SCENARIOS IN PEANUT**

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### **Abstract**

Peanut is one of the major oilseed crops of India. Peanut is often damaged by more than 100 insect pests which are broadly classified into defoliators, sucking pests, root feeders and storage insect pests. Among sucking pest thrips and leafhoppers are the major ones, coccinellids and spider often predate on these sucking pests. Hence we tried to study the natural enemies and pest scenarios in Peanut. Incidence of insect pests was studied by sowing peanut variety GJG 22 every month under unprotected condition in plots of 5X5 Square meter at Entomology research plots of Directorate of Groundnut Research (ICAR-DGR) farm. Sucking pests were estimated using sweep net catches. Thrips and leafhoppers were found throughout the season. Highest thrips population was recorded 20 per five sweeps during 48<sup>th</sup> Standard week and leaf hopper population 0f 30 per five sweeps was recorded during 42<sup>nd</sup> standard week. Natural enemies like coccinellids and spiders were recorded during last year. Highest number of coccinellids (6) was recorded during 30<sup>th</sup> and 48<sup>th</sup> Standard week and spiders (7) were recorded during 38<sup>th</sup> Standard week. Coccinellids showed clearly that when there incidence was more the sucking pest population was low. Lotka-volterra model clearly states that pest and natural enemies' incidence are negatively correlated.

## **ECONOMIC ANALYSIS OF INPUTS USE PATTERN IN WHEAT CROP IN DRY ZONE OF HARYANA**

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### **Abstract**

This study pertained to the dry zone of Haryana state. The study is based on the data collected under the comprehensive