

Effect of Rice Crop Residue Management Practices and Fertilizer Levels on Nutrient uptake in Rice fallow Maize

A Kavya, K Chandrasekhar, S Jaffar Basha and P Madhuvani

Department of Agronomy, Agricultural College, ANGRAU, Bapatla, Andhra Pradesh

ABSTRACT

A field experiment was carried out during *rabi* 2022-23 on sandy clay soil at the Agricultural College Farm, Bapatla to study the effect of crop residues and fertilizer levels on the growth and yield of rice fallow maize. The experiment was laid out in Split plot design with five residue management practices as main plots (M_1 : Burning of residue, M_2 : Rice crop residue incorporation with PUSA decomposer, M_3 : Rice crop residue incorporation without PUSA decomposer and M_4 : Rice crop residue mulching with PUSA decomposer, M_5 : Rice crop residue mulching without PUSA decomposer) and four fertilizer levels (Control, 75% RDF, 100% RDF and 125% RDF) as sub plot treatments. The results of the investigation revealed that M_4 (Rice crop residue mulching with PUSA decomposer) recorded significantly higher plant height, drymatter production, grain yield and NPK uptake by grain compared to other practices. Among the fertilizer levels, 125% RDF recorded the higher values for all the growth, yield and uptake of nutrients compared to other levels.

Key word: *Crop residue, Fertilizer levels, Growth, Rice fallow maize and Yield.*