EFFECT OF JATROPHA CAKE AND ITS COMBINATION WITH FERTILIZER ON RICE PRODUCTIVITY

Anup Kumar, K. Tedia and Pradip Kumar

Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.) 492006 India

Abstract: The present investigation was carried out during *kharif* season of 2006-07 at the Instruction Farm, Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.). The experiment was laid out in randomized block design (RBD) and replicated thrice with ten treatments consist of Jatropha cake and chemical fertilizer doses and there combinations to evaluate effect on rice productivity. The applications of 100% NPK + 2 t ha^{-1} cake or 100% NPK + 1 t ha^{-1} cake were beneficial in increasing the growth, yield attributing characters dry matter production, uptake of major (nitrogen, phosphorus and potash) and micronutrients (iron, copper zinc and manganese) and yield of rice crop. The Jatropha cake additions with recommended dose of chemical fertilizer also improved the soil organic carbon, soil available major (nitrogen, phosphorus and potash) and micronutrients (iron, copper zinc and manganese), thus sustainable soil health can be maintained by long term use of the cake in crop production.

Keywords: Rice, Jatropha cake, Fertilizer, yield, productivity

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