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RESEARCH PAPER

Integrated nutrient management in rice-wheat cropping system

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Abstract : A study was carried out to find out the integrated dose of nutrient for rice and wheat under rice-wheat cropping system at Mainpuri and Saini, Kaushambi. The summarized results of these two interrupted sites indicate that the rice responded to the application of 25 kg ha^{-1} of zinc sulphate, which registered an additional yield of 4.90 q/ha while in wheat response of zinc sulphate was 1.75 q ha^{-1}. The use of 30 kg P_2O_5 and 60 kg P_2O_5 ha^{-1} did not influence the yield of rice and wheat in the system, during two experimental years at both sites. Application of 120 kg N + 30 kg P_2O_5 + 40 kg K_2O + 25 kg $ZnSO_4$ ha^{-1} to rice and 120 kg N + 30 kg P_2O_5 + 40 kg K_2O + 25 kg $ZnSO_4$ ha^{-1} to wheat gave higher total yield of 84.35 q ha^{-1} and saved 60 kg P_2O_5 ha^{-1} from rice and wheat doses of P_2O_5. The total production in rice and wheat obtained from the best combination of nutrients by 84.35q ha^{-1} was higher than the average productivity of India (46.56 q ha^{-1}) and U.P. (42.90 q ha^{-1}) recorded, during 2004-05. Therefore, with the integration of different nutrients in rice-wheat cropping system, the production can be sustained.

Key Words : Integrated nutrient management, Rice-wheat system, System production, Interrupted site, Synergistic effect

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