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\(_2\)O\(_5\) and 60 kg P\(_2\)O\(_5\) 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\(_2\)O\(_5\) + 40 kg K\(_2\)O + 25 kg ZnSO\(_4\) ha\(^{-1}\) to rice and 120 kg N + 30 kg P\(_2\)O\(_5\) + 40 kg K\(_2\)O + 25 kg ZnSO\(_4\) ha\(^{-1}\) to wheat gave higher total yield of 84.35 q ha\(^{-1}\) and saved 60 kg P\(_2\)O\(_5\) ha\(^{-1}\) from rice and wheat doses of P\(_2\)O\(_5\). The total production in rice and wheat obtained from the best combination of nutrients by 84.35 q 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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