Effect of organic manures Nitrogen and Zinc fertilization on growth, yield, yield attributes and quality of rice (*Oryza sativa* L.)

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SUMMARY
A field experiment was conducted during *kharif* season of 2003 and 2004 at J.V. College, Baraut, U.P., to study the effect of organic manures and fertilizer treatments on growth, yield and yield attribute of rice (*Oryza sativa* L.). Application of organic manures significantly influenced the growth, yield and yield attributes of rice (*Oryza sativa* L.). Application of organic manures significantly influenced the growth, yield and yield attributes of rice during both the years of experimentation. However, the organic manures viz., FYM, PM and FYM + PM, did not show marked variation among themselves. Each unit increase in N levels led to significant increase in growth, yield and yield attributing characters of rice up to 80 kg N/ha over control during the study. The maximum mean grain yield (45.4 q/ha) was recorded with NPZn treatment. Over the years, incorporation of FYM, PM and FYM + PM registered and Zinc application along with N in both the years of study significantly increased grain yield of rice over 40 kg N/ha and in pooled analysis also. Fertilizer treatment NPZn recorded the highest protein content during both the seasons.

Key words: Rice, Nitrogen, Poultry manure, Farmyard manure, Yield, Yield attributes protein.