



Research Article

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Responses of split application of nitrogen on the performance of *Kharif* rice (*Oryza sativa* L.) in Terai zone of West Bengal

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Summary

A field trial had been conducted to see the responses of split application of nitrogen on the performance of *Kharif* rice comprising of 5 treatments (T_1 =50% N as basal+50% N at active tillering, T_2 =50% N as basal+25% N at active tillering + 25% N at panicle initiation, T_3 =25% N as basal+25% N at active tillering+25% N at panicle initiation+25% N at flowering, T_4 =40% N as basal+30% N at active tillering basal+30% N at panicle initiation and T_5 =100% N as basal) using Randomized Complete Block Design (RCBD) with 4 replications in Terai zone, Cooch Behar, West Bengal during 2015 and 2016. The experimental results showed that all the growth and yield attributes were found to be highest where nitrogen was applied in four equal split (T_3) followed by T_2 and T_4 . Higher growth and yield attributes ultimately helped in producing 6.98 and 9.22 per cent more grain yield in T_3 over T_2 and T_4 , respectively. 430 to 820 kg ha⁻¹ yield reduction has been found when 100 per cent nitrogen applied as basal in comparison with splitting of nitrogen in two (T_1) and four equal parts (T_3).

Key words : Rice, Nitrogen, Split application, Yield, Economics

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