

Influence of Neem Coated urea on Different forms of Nitrogen and Yield in Rice

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ABSTRACT

A field experiment was conducted in Agricultural college farm, Bapatla, Andhra Pradesh to study the “Influence of neem coated urea on different forms of nitrogen and yield in rice” during *kharif* season of 2016 with 9 treatments comprising of application of 75 to 125% RDN through neem coated urea and 100% RDN through urea in 3 and 2 splits. Forms of nitrogen (ammoniacal, nitrate, total and mineralizable- N) and yield of rice were significantly influenced by application of neem coated urea. Application of recommended dose of nitrogen through neem coated urea @ 75 to 125% in three (T_3 to T_5) and two split doses (T_7 to T_9) maintained maximum amount of ammoniacal - N, total -N and mineralizable -N and lower levels of nitrate -N in soil. The significantly highest grain (5182 kg ha^{-1}) and straw yield (6515 kg ha^{-1}) were recorded in the treatment that received 125% RDN through neem coated urea in 3 splits (T_5) which was on par with 75% and 100% RDN through neem coated urea. Even though 100% N applied through urea in 3 splits recorded lower yield compared to 75% RDN through neem coated urea). The use of 75% RDN through neem coated urea applied in 3 or 2 splits appeared to be economically viable treatment which contributed towards improvement of soil health and crop productivity with reduced losses.

Key words: *Neem coated urea, Splits and nitrogen forms.*