

## **Effect of modified urea on nitrogen use efficiency, growth and yield of transplanted rice (*Oryza sativa* L.) var. NDR-359**

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**ABSTRACT :** The experiment was conducted during *Kharif* season of 2012-2013 at the student instructional farm of Narendra Deva University of Agriculture and Technology, Narendra Nagar (Kumarganj), Faizabad (UP). The experiment was carried out using Random Block Design (RBD) having three replication and seven modified urea level from different source (Normal urea, sulphur coated urea, neem coated urea, charcoal coated urea, FYM mixed urea, clay coated urea). Among different slow release modified forms of urea, neem coated urea was best followed by split application of prilled urea as nitrogen source for transplanted rice for increase of growth and yield of rice. The slow release modified forms of urea neem coated-urea proved and sulphur coated urea at par with neem coated urea more effective in increasing plant height, number of tillers/m, numbers of panicle/hill, numbers of grains/panicle and dry matter accumulation/m<sup>2</sup>. Neem-coated-urea emerged better urea material in increasing grain and straw yield of transplanted rice over prilled urea (normal urea) and rest of the slow release urea materials.

**Key Words :** Urea, sulphur coated urea, neem coated urea, charcoal coated urea.