



## Effect of Real Time Nitrogen Management on Productivity of Rice (*Oryza sativa* L)

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**Abstract:** The present study was done at farmer field of Katihar district during the two consecutive years 2014 and 2015 to find out the effect of real time nitrogen management on productivity of rice. The soil is non-calcareous light gray flood plain belongs to the alluvial gangetic plain (Agro climatic zone II) with normal in physico-chemical properties except fertility status. One of the recently introduced nitrogen management approach was estimating the leaf nitrogen concentration by the measurement of leaf greenness. The application of nitrogen with the help of CLCC significantly increase in yield attributes i.e. plant height, number of tillers, panicle length, filled kernel/plant, productive tiller /m<sup>2</sup>, grain and straw yield in comparisons to farmers practice. Hence, the B: C ratio increase from 2.08 (farmers practices) to 4.14 where CLCC used for nitrogen application. Therefore, inexpensive customized leaf color chart (CLCC) has proved quick and reliable tools to decide the time when nitrogenous fertilizer needs to be applied to the crop. With CLCC, farmers can apply N at the right time, thereby increasing the productivity and profitability of rice and reduction in nitrogen fertilizer.

**Keywords:** Rice, CLCC, Nitrogen

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