

## RESEARCH ARTICLE

# Optimizing the nitrogen fertilizer requirement for pre-release short duration rice cultures in North Eastern zone of Tamil Nadu

■ C. Muralidaran, S. Malathi and S. Banumathy

### SUMMARY

Field experiments were conducted for two years during 2017 and 2018 at Rice Research Station, Tirur to optimize nitrogen fertilizer requirement for pre-release rice cultures TM10085, TM 07335, TM 07030 along with the check variety CO51. The trial was conducted in split plot design with three replications and the main plot consisted of three pre-released rice cultures along with one check variety. The sub plot consisted of three fertilizers doses viz., 150-50-50 NPK kg/ha, 175-50-50 NPK kg/ha and 125-50-50 NPK kg/ha. In this experiment, the rice culture TM10085, along with fertilizer application of 150-50-50 NPK kg/ha recorded the highest grain yield of 5505 kg/ha during 2018. This treatment also registered highest growth, yield attributes and benefit cost ratio in Tirur, Tiruvallur district of North Eastern Zone, Tamil Nadu.

**Key Words :** Rice, Fertilizer dose, Nitrogen requirement, Pre-release cultures

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### MEMBERS OF THE RESEARCH FORUM

**Author to be contacted :**

**C. Muralidharan**, Rice Research Station, Tamil Nadu Agricultural University, Tirur, **Tiruvallur (T.N.) India**  
**Email :** cmuralidaran@gmail.com

**Address of the Co-authors:**

**S. Malathi and S. Banumathy**, Rice Research Station, Tamil Nadu Agricultural University, Tirur, **Tiruvallur (T.N.) India**  
**Email :** malathi\_agri@rediffmail.com