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Real-time N management in low land rice (*Oryza sativa* L.) through LCC and SPAD meter

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An investigation on real-time nitrogen management in rice through LCC (Leaf Colour Chart) and SPAD (Soil and Plant Analysis Development Meter) was carried out at the new area Farm, College of Agriculture, Raichur, Karnataka. Treatment consists of five levels of LCC and five levels of SPAD meter compared with farmers and recommended method of nitrogen application. Significantly higher grain yield per hectare was noticed with farmers (44.53 q ha^{-1}) method of nitrogen application and it was on par with LCC 5 (42.40q ha^{-1}), LCC 5.5 (43.33 q ha^{-1}), SPAD 37.5 (42.50 q ha^{-1}) SPAD 40 (43.80q ha^{-1}) and recommended method (43.07 q ha^{-1}) when compared to other methods of N application. The higher grain yield in rice was mainly attributed to higher yield attributes like number of panicles per hill, grains per panicle and test weight. Results show that plant need-based N management through LCC and SPAD meter reduces N requirement of rice by 20 and 45.5 per cent over recommended and farmers' method of N application. The application of N through LCC 5 or SPAD 37.5 and recommended method recorded higher agronomic and physiological efficiency (74.8, 69.7 & 41.9%, respectively) & (20.8, 22.8 & 13.6 per cent, respectively) over farmers' method. This might be due to increased recovery of applied N and this in turn manifested in the higher grain and straw yield of rice.

Biography

Shantappa Duttarganvi has completed his M.Sc. (Agri) from UAS, Raichur and presently pursuing Ph.D. in Department of Agronomy, College of Agriculture, Raichur, UAS, Raichur, Karnataka.

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Studies on different morpho-physiological traits of pre-release early sugarcane clones

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Five promising early sugarcane clones (2006 T3, 2006 T8, 2006 T19, 2006 T23 and 2006 T36) from yield trials along with two checks (Co C 671 and Co 94008) were evaluated for identification of sugarcane clones suitable for delayed harvest and crushing" at Agricultural Research Station, Perumallapalle, Chittoor, Acharya N. G. Ranga Agricultural University, Andhra Pradesh, during 2011-2012.

The data on different growth parameters *viz*., germination per cent, plant height, SCMR values and leaf area index were recorded at different crop growth periods. The highest germination count was recorded with 2006 T36 followed by Co C 671 and Co 94008, whereas the lowest count was recorded with 2006 T23. Among the clones 2006 T3 and 2006 T36 recorded the highest plant height at different crop growth periods (90, 120, 240 DAP and at harvest) along with two standards (Co C 671 and Co 94008), while the clone 2006 T23 recorded the lowest plant height.

The highest SCMR values and LAI was recorded with Co C 671, Co 94008 followed by 2006 T36 and 2006 T3 at different crop growth periods (60, 90, 120 and 150 days), whereas, the clone 2006 T23 recorded the lowest SCMR and LAI values.

The data recorded on different yield attributes viz., cane diameter (cm), cane length (cm), number of millable canes and cane yield at harvest showed that 2006 T36 and 2006 T3 recorded the higher cane yields along with checks, while the clone 2006 T23 recorded the lowest cane yield.

Biography

Y Sharath Kumar Reddy has completed his M.Sc. (Ag) at the age of 24 years from Acharya N. G. Ranga Agricultural University, Hyderabad and now doing his doctoral programme in ICRISAT under Acharya N. G. Ranga Agricultural University, Hyderabad in the discipline of Crop Physiology.

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