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### Effect of different organic manures on growth, yield, nutrient uptake and soil micro flora by transplanted Rice

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A field experiment was carried out at ZARS, Brahmavar, UAS, Bengaluru during *Kharif*, 2012. The experiment was laid out in a randomized complete block design with eleven treatments replicated thrice. The treatments consisted of combinations of organic manure (glyricidia, euphorium, poultry manure, vermicompost, and goat manure) and liquid organic manure (cattle urine and bio digester liquid manure) and these treatments were compared with recommended dose of fertilizer. Application of 50 per cent recommended dose of nitrogen through goat manure + 50 per cent N through bio digester liquid manure produced significantly higher grain yield (5110 kg ha<sup>-1</sup>) and straw yield of rice (6105 kg ha<sup>-1</sup>) as compared to other combinations of organic manure + liquid organic manure and recommended dose of fertilizer (4351 kg ha<sup>-1</sup> and 4974 kg ha<sup>-1</sup> respectively). This was mainly due to growth attributing parameters like plant height (95.47 cm), number of leaves (115.61), number of tillers (44.35), leaf area (1481.16 cm<sup>2</sup>), total dry matter production per hill (118.92 g) and yield contributing characters like number of productive tillers per hill (34.69), panicle weight (5.75 g), 1000 grain weight (25.70 g) and number of filled grains per panicle (141.12). The total nutrient uptake of nitrogen, phosphorus and potassium (129.47, 32.87 and 100.86 kg ha<sup>-1</sup>, respectively) and higher population of bacteria, fungi and actinomycetes (51.22 cfu X 10<sup>6</sup> g<sup>-1</sup> of soil, 62.45 cfu × 10<sup>3</sup> g<sup>-1</sup> of soil and 38.98 cfu × 10<sup>3</sup> g<sup>-1</sup> of soil) were recorded in the same treatment.

#### Biography

M Padmanabhan born and brought up in Mysore, Karnataka completed his school and college education in Mysore. He then completed his BSc (Agriculture) during 2011 and his M.Sc. (Agriculture) in Agronomy during 2013 from University of Agricultural Sciences, GKVK, Bengaluru. He conducted his research on "Effect of different organic manures on growth and yield of transplanted rice" for his Master's degree. He has published two research papers, four research abstracts and two popular articles in reputed journals and magazines. He has also participated in two national level conferences. At present, he is pursuing his Ph.D. Degree in Agronomy from UAS, GKVK, Bengaluru.

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### Irrigation scenario in Parbhani district in Marathwada region of Maharashtra state

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Maharashtra state as of today came into existence in 1960. The increasing population was facing shortage of food grains. This has led to the need of increasing agricultural production. By giving priority to agricultural development attempt has been made to achieve irrigation development in a planned manner. Keeping these things in view, this paper attempted to study irrigation scenario in Parbhani district. For present research Parbhani district was selected purposively because, there is sufficient area under the irrigation in Parbhani district in Marathwada region. Parbhani district as a whole was selected for study which comprises of following talukas i.e., Parbhani, Jintur, Manvat, Pathri, Sonpeth, Gangakhed, Palam, Purna and Selu.

The historical data from 1991-92 to 2010-2011 i.e. for 20 years were collected i.e. from district statistical abstract and socio-economic review published by Bureau of economics and statistics Government of Maharashtra, Season and crop report of Maharashtra state, Epitome of Maharashtra state. The whole span of 20 years split into sub-periods of decades, period-I i.e. form 1991-2000 and period-II from 2001-2011, period-III 1991-2010 based on the assumption that the new technology has percolated. The major analytical tools used in the analysis were CGR and stability analysis. The study indicated that CGR of both i.e. surface and subsurface irrigation together was highest at Palamtaluka as 17.54 and lowest at Selutaluka as 2.78 per cent per annum during last 20 years. This growth at overall level in Parbhani district as a whole was 11.60 per cent per annum. The results of the study can be use for launching different programs for developing agriculture in the state and will help policy makers, administrators and research worker for development of agriculture in different fields to plan their strategies for overall development of state.

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