

# Effect of Long-Term use of Inorganic Fertilizers, Organic Manures and Their Combination on Yield Attributes and Yield under Rice-Rice Cropping System

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## ABSTRACT

A field experiment entitled “Carbon sequestration and soil health under long term soil fertility management in rice-rice cropping system” was carried out under field conditions during both *kharif* and *rabi* seasons of 2016-2017 and 2017-2018 at Andhra Pradesh Rice Research Institute and Regional Agricultural Research Station, Maruteru, West Godavari district in the ongoing All India Coordinated Research Project on Long Term Fertilizer Experiment Project. The results reported that the highest grain and straw yield was observed with the application of 100%NPK in combination with ZnSO<sub>4</sub> and FYM @ 5t ha<sup>-1</sup>. It was significantly superior over all other treatments during both the years of study. Dry matter accumulation was higher with the application of 100%NPK in combination with ZnSO<sub>4</sub> and FYM @5t ha<sup>-1</sup>. However, it was on par with that of application of 100% NPK along with ZnSO<sub>4</sub>@ 40 kg ha<sup>-1</sup> and significantly superior over all other treatments during both the years of the study in *kharif* and *rabi*.

**Key words:** *Grain yield, Inorganics, Organic manures, Rice- rice cropping*