

## **1736 Effect of integrated nutrient management practices on crop productivity, fibre quality and soil properties in cotton based cropping systems**

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Field investigations were undertaken over four years in vertisols on fixed site with cropping systems viz., **cotton-cotton** and **cotton-soybean-chickpea** as main plots and eight INM practices as sub plots, laid out in split plot design at Agril. Res. Station, Dharwad, Karnataka, India, to assess the effect of INM practices and cotton based cropping systems on crop productivity, soil properties and fibre qualities. Results revealed that *Cotton-Soybean-Chickpea* cropping system maintained marginally higher kapas yield as compared to *cotton-cotton* monocropping. Supplementing 50% nutrients each through organics and fertilisers to cotton resulted in on par yields as that of only inorganic fertilizers. The grain yields of soybean and chickpea as rotational crops after cotton were influenced by the combined application of organics and inorganics. Marginal improvement in soil organic carbon was seen under rotational cropping system. Fibre qualities were not influenced by cropping systems and INM practices.

Conclusions: Rotational system of *Cotton-soybean-chickpea* and INM strategies of supplementing 50% nutrients each through organics and inorganics could be a long term strategy for sustaining the crop yields and soil health.