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GANAPATHI, M. A, SHANKAR , G. N, GAJANANA, B. K, RAMACHANDRAPPA, K., and SOMASHEKARA.

All India Co-ordinated Research Project for Dry land Agriculture, University of Agricultural Sciences, GKVK, Bangalore, Karnataka, India.(ganapathiguddekoppa@yahoo.com)

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All India Co-ordinated Research Project for Dry land Agriculture, University of Agricultural Sciences, GKVK, Bangalore, Karnataka, India.
Email: ganapathiguddekoppa@yahoo.com

ABSTRACT
Soil samples collected from different treatment of 30 years long term experiment located at GKVK, Bangalore, Karnataka, were analyzed for Soil Organic Carbon (SOC) content and distribution of N fractions. Results indicated that samples obtain from the treatments involving continuous use of FYM alone and FYM integrated with NPK fertilizers recorded higher values with respect to NH4+-N , NO3–N, fixed NH4+-N hydrolysable NH4+- N, hexosamine –N, amino acid N, available and total N content compared to the treatments involving only NPK fertilizers or without any fertilizer or organic (control). Similarly highest SOC (0.58 per cent) was recorded by the treatment involving application of FYM @ 10 t / ha followed by the treatments involving FYM @ 10 t / ha + RDF, FYM @ 10 t / ha + 50 %. RDF and only RDF which recorded the SOC of 0.54, 0.53 and 0.37 per cent respectively. In respect of Fulvic Acid (FA) and Humic acid (HA) in soil, the highest (0.23 per cent) Fulvic Acid (FA) was recorded in the treatments which receive FYM @ 10 t / ha compared to all other treatments and the lowest Fulvic Acid (0.14 per cent) was recorded in receiving only RDF. Similarly Humic Acid carbon was found to be highest (0.34 per cent) in the treatment receiving FYM @ 10 t / ha and lowest Humic Acid content (0.195 per cent) was recorded in recommended NPK fertilizers. In respect to per cent Humic Acid and Fulvic Acid in humus, highest Fulvic Acid (77.2 per cent) in humus was recorded in control and lowest Fulvic Acid (54.6 per cent) was noticed in treatment receiving FYM @ 10 t / ha + recommended NPK fertilizers, while highest (45.3 per cent) Humic Acid in humus was recorded in FYM @ 10 t / ha + recommended NPK and lowest (22.8 per cent) was noticed in control.