

## Long-term effect of FYM and inorganic fertilizers on yield and physico-chemical properties of loamy sand soil

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**ABSTRACT :** The study was undertaken by utilizing on-going long-term experiment on continuous cropping at AAU, Anand which commenced in 1980. The treatments comprised of two levels of FYM (0 and 10 t/ha) was applied once in a year to *kharif* pearl millet and four levels of recommended dose of NP fertilizers (0, 50, 100 and 150% of RD) applied to each crop (pearl millet-mustard-cowpea (fodder) in RBD (factorial) with three replications. The FYM application was found beneficial to increase yield due to its residual effect on summer cowpea (fodder). The highest green and dry fodder yield of cowpea observed under the treatments of FYM application @ 10 t/ha and NP application @ 150% RD compare to control. The treatments of FYM and fertilizers improved WHC, OC and availability of major (N and P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O and S) and micronutrients (Fe, Mn, Zn and Cu) in soil but decreased BD as well as pH and EC in 0-15 and 15-30cm depths of soil.

**Key Words :** Long-term FYM and inorganic fertilizer, yield, physico-chemical properties, *goradu* soil, loamy-sand (*Typic Ustochrept*), major nutrients, micro-nutrients.