

Research Article

Identification of soil nutritional constraints and land use planning of UPRS and CCBP farms of VNMKV, Parbhani

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Summary

The present investigation was carried out for identification of soil nutritional constraints and suggest land use planning of UPRS and CCBP farm of Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani. Total one sixty surface soil samples (eighty from each farm) were collected from UPRS and CCBP farms of Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani. These soil samples were analyzed for soil properties and fertility status of soil. The results revealed that the soils of UPRS (upland paddy research station) and CCBP (cattle cross breeding project) farms were moderately alkaline in soil reaction, within safe limit of electrical conductivity, low to moderately high in organic carbon content and calcareous in nature. According to concept of soil nutrient index by Ramamoorthy and Bajaj, soils are low in available N, S and Zn while medium in available P and high in available K, Ca, Mg, Fe, Mn and Cu. Further, the organic carbon content showed positive and significant correlation with soil available N, P, S as well as micronutrients like DTPA-Fe, Mn and Zn. For planning of land use, the soil site suitability characteristics of UPRS and CCBP farms showed that these soils were highly suitable for growing soybean, pigeonpea and moderately suitable for growing cotton crop. The nutritional constraints identified were the deficiencies of available N, S and Zn in UPRS and CCBP farms of Vasantrya Naik Marathwada Krishi Vidyapeeth, Parbhani.

Key words : Soil properties, Fertility status, Soil site suitability, Land use planning

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