

Characterization and classification of Chilli growing soils of Khammam District

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Fifteen representative profiles were studied the Chilli growing areas of the district. Soil samples were collected horizon-wise and analysed for chemical properties. In addition, sixty surface samples were collected from major chilli growing areas separately and analysed for N, P and K and Fe, Cu, Mn and Zn to know the nutrient status. The soil organic carbon content of surface soils ranged from 0.52 percent in Kusumanchi, Palvancha profile to 0.73 per cent in cherla profile. The organic carbon was medium in status. Soil calcium carbonate content varied from 1.46 to 13.65 per cent and it increased with depth. The available nitrogen and phosphorus contents in the profiles varied from low to medium and decreased with depth. The potassium content of soils was medium to high and decreased with depth. The available micronutrient content was higher than critical limits and decreased with depth. The nutrient index calculated from the fertility status in surface (0-15cm) soil samples was low in nitrogen (1.42), low in phosphorus (1.42) and medium in potassium (2.28). The available iron, copper, manganese and zinc in surface soils ranged from 2.56 to 25.59, 0.23 to 4.45, 3.57 to 17.32 and 0.68 to 1.65 mg kg⁻¹ respectively, which were higher than the critical limits. The major constraints identified were low nitrogen and phosphorus status. Management practices suggested to increase the productivity are application of N and P fertilizers.

Biography

R. Saikumar has completed M.Sc (Ag) from Acharya N.G Ranga Agricultural University and I am doing Ph.D (Agriculture) in the dept. of. Soil science from the same university.

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