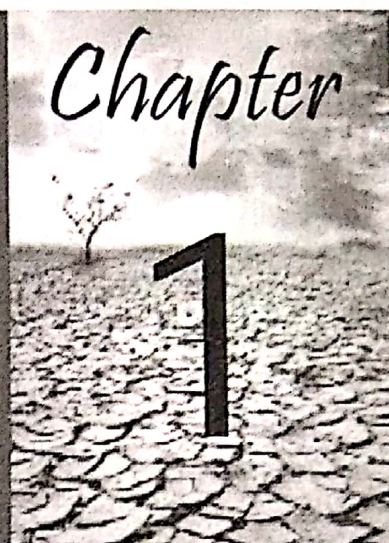


Improving Productivity of Drylands through Integrated Soil Fertility Management

Chapter

1



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ABSTRACT

Drylands and arid region covers a sizeable part in India. Low and erratic precipitation, extreme temperature, high evapotranspiration and low relative humidity are characteristics of the region. The region supports ever increasing human and livestock population which exert tremendous pressure on fragile natural resources in the region. The soils of the region are inherently poor in soil organic matter and are generally coarse textured. The soils of the region also show physical and biological degradation of varying degree. The indiscriminate use of fertilisers adds to the problem. There is an urgent need of adoption of site specific nutrient management practices along with adoption of other scientific techniques for enhancing soil productivity. Application of organic manures along with suitable biofertilisers is proved to reverse the soil degradation processes. There should be adequate care to include soil test based application of secondary and micronutrients to correct the deficiencies. The nutrient management practices should go hand in hand with soil and water conservation measures and cultural practices such as inclusion of legumes in rotation, crop residues and tillage management and correction of ground water quality.

1 INTRODUCTION

Arid region covers 38.7 million hectare land in India, of which 31.7 and 7 million hectares comes under hot and cold arid region respectively. The hot arid region covers 28.7 million hectare land in northwest India and 3.13 million hectare land in southern India, while cold arid region covers Lahaul & Spiti, Kinnaur and a part of Chamba district in Himachal Pradesh and Leh and Ladakh of Jammu and Kashmir. About 82% of hot arid region falls between 22°30' to 32°05'

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