

ABSTRACT

This study is conducted at the tehsil Pirmahal that is located in the Toba Tek Singh district in province of Punjab. Soil fertility has traditionally been linked to soil productivity, ability of soil to promote the crop growth. Different agricultural practices affect the soil fertility all over the world like intensive cultivation, irrigation water quantity & quality, cropping pattern and imbalanced fertilization. As in Pakistan population is increasing in geometric way and most of the economy is based on agriculture, so need to give attention on soil fertility. The aim of this study is to examine the overall status of primary macro nutrients (NPK), soil texture and factors affecting the agricultural land use pattern & mining the natural soil fertility of the area. The results shows that the soil nitrogen of the study that area is declining rapidly while phosphorus and potassium are also declining but in lesser extent. Only 0.13% nitrogen is naturally available while phosphorus is varying from (1ppm-25.9ppm) and potassium is fluctuating between (60ppm-400ppm). Sand content is between (19%-46%), silt (35%-66%) and clay (10%-20%) in the study area. Overall loamy type of soil texture is present, suitable to all type of cropping. The results acquired from this study shows that the changes in soil fertility have long-term influence of human beings due to increase in population, as intensive cultivation and excessive use of fertilizers are two major factors affecting the fertility status of the area. These changes without any proper management could be harmful to soil nutrients. In order to gaining sustainable development, necessary to sustainable socially and economically. Effective strategies must be needed to apply in our country for better solution of soil fertility.