

SOIL FERTILITY STATUS ASSESSMENT IN BAHADER KHEL AREA, DISTRICT KARAK

Faisal Zaman¹, Farmanullah Khan¹, Nazia Tahir², Farhat Ullah¹, Muhammad Arif¹, Adnan Tahir¹;
Menhaj Ud Din¹ and Abdul Samad²

¹*Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar*

²*Department of Agriculture, Abdul Wali Khan University, Mardan*

faisalzaman@aup.edu.pk

Abstract

A total of 20 soil samples were collected from a depth of 0-30cm very carefully from various locations to assess the fertility status of Bahadar Khel district Karak. Three different soil samples from all the location were collected and mixed to make a composite. The collected samples were completely and properly packed, labeled and brought to the laboratory of Soil and Environmental sciences Department, The University of Agriculture Peshawar. The soil samples were dried and clean from other debris including stone, non-degradable material etc and were grounded. In the laboratories these grounded samples were sieved and stored for further analysis. It showed the data that the soil of Bahadar Khel is slightly alkaline, having a maximum pH of 7.74 and minimum of 7.05. These soils were non saline or normal soils based on EC, having a maximum of 3.50 dsm⁻¹ and minimum of 0.14 dsm⁻¹. In organic matter a total of 70% of the soils are low and 30% soils are medium in that. Similarly, 100% of the soil were moderately calcareous in lime content. The N concentration is deficient having maximum concentration is 0.52% and minimum is 0.02%. The soluble salts are low in Bahadar khel having maximum is 1.12% and minimum is 0.04%. The soil was sandy and loamy, having 65% of soils are sand and 35% soil are sandy loam in texture. The soil of the area showed that course soil have low water and nutrient holding capacity than fine texture soil.