



Correlation of some soil types of Kosovo from the old Yugoslavian Soil Classification (YSC) into World Reference Bases for soil resources (WRB)

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Kosovo is still using the old Yugoslavian Soil Classification system. Therefore, the aim of this research is to view the correlation between the old Yugoslavian Soil Classification (YSC) and World Reference Bases for soil resources (WRB).

A total of 46 samples of genetic horizons were collected from 11 profiles, randomly from a soil map of Kosovo (1974). The samples belong to four different soil types classified according to WRB, which are spread in different location throughout the country. The physical and chemical properties such as structure and texture, pH, organic matter OM, calcium carbonate CaCO_3 , cation exchange capacity CEC, base saturation BS and electrical conductivity EC were analyzed by standard methods. The results showed that the structure of most of the profiles are blocky angulare and blocky subangulare while the first and fourth profile have prismatic structure below 40 cm and the eighth profile have no structure below 25 cm. The texture of most of the profiles is loamy, clay and clay loamy, whereas the ninth profile sandy loam texture. The pH in H_2O mostly is weak acidic, basic and weak alkaline, therefore, is decreasing with depth while in profiles that have a certain amount of CaCO_3 the pH is increasing. The profiles are rich in organic matter but the OM is decreasing linearly with depth except in third profile that organic matter is increasing below topsoil. The CaCO_3 takes place in profile seven below 90cm, in profile eight throughout it and in profile eleven as well. The cation exchange capacity varies from the profiles with 4.53 cmol/kg the lowest value in profile nine until 51.3 cmol/kg the highest value in profile eighth. Base saturation is more than 95% in all the profiles. The electrical conductivity varies from 71 mS/cm up to 545 mS/cm.

Based on a field experiment, we found that the existing soil map of Kosovo (1974) is not fully corresponding to the soil in the field, thus, 45.45% of the map corresponds to the field, while 54.54 % is not corresponding.