

Agricultural soils characterization of two experimental stations located in southeastern Romania

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Abstract: The aim of this study is to present original results about several important chemical properties of soil located in the South – East region of Romania: Valul lui Traian (Constanta County) and Fundulea (Calarasi County) enhanced with two types of fertilizer, in august 2010. pH, soluble salts, mobile phosphorus and potassium, carbonates, humus (organic carbon) and nitrogen concentrations have been determined using common chemical and instrumental methods. The pH values show that the soil from Valul lui Traian has a neutral to weak alkaline character, while the soil from Fundulea has a weak acid to neutral character, almost close to weak alkaline. Both studied soils have very low traces of total soluble salts, 12 - 238 ppm mobile phosphorus, 122 - 138 ppm potassium, low level of total calcium carbonate (0.12 - 0.94%), medium humus concentration levels (2.64 - 4.12%) and from low to medium total nitrogen concentration (0.12 - 0.16%). In conclusion, both types of fertilizers used on the soils from Valul lui Traian and Fundulea contribute to a medium to very good nutritive element content.

Keywords: soils, pH, salts, phosphorus, potassium, carbonate, nitrogen, organic carbon, determination.
