Environmental Engineering and Management Journal

December 2017, Vol.16, No. 12, 2911-2918
http://omicron.ch.tuiasi.ro/EEMJ/

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VARIATION OF EUTRIC CAMBISOLS' CHEMICAL PROPERTIES BASED ON ALTITUDINAL AND GEOMORPHOLOGIC ZONING

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Abstract

This study of the variation process of the chemical properties of eutric Cambisols on altitudinal levels, forest station subclasses and geomorphologic units, was based on soil analyses from 847 soil horizons gathered from 379 profiles. These profiles were distributed on Romania's entire forest area. The average values of the eutric Cambisol's chemical properties fit were within the known limits for this type of soil, but there were slight variations based on altitude, forest station subclass and geomorphologic units. As expected, the most chemical properties decrease according to the altitudinal levels, from altitudes of over 900 metres to altitudes of under 300 metres. At the level of the Ao horizon, the pH has a value of 5.78 (the soils are slightly acid) at altitudes lower than 300 m and of 5.03 (the soils are mildly acid) at altitudes higher than 900 m.The saturation degree basis is 72% (the soils are mezobasic towards eubasic) at altitudes lower than 300 m, and 56.7% (the soils are mezobasic towards oligomezobasic) at altitudes higher than 900 m. The exchangeable hydrogen decreases from 16.95 me/100 g soil at altitudes higher than 900 m to 9.01 me/100 g soil at altitudes lower than 300 m.

Key words: altitude, eutric Cambisol, geomorphologic zoning, variability

Received: November, 2013; Revised final: October, 2014; Accepted: November, 2014

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