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Modelare fuzzy a caracterizarilor lingvistice folosite in evaluarea aproximativa a continutului de carbonat de calciu din orizonturile pedogenetice

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Calcium Carbonate is a low soluble mineral constituent, which is present in some soil horizons. The imbibition with calcium carbonates of the soil horisons situated in the higher and middle part of the soil profile is marked out by the presence of calcium carbonate accretions of different shapes. The calcium carbonate accretion beyond certain limits in the superior part of the soil in the vineyards and orchards can lead to plants withers. An estimation of the calcium carbonate contents can be done by observing the effervescence produced when treating the soil sample with hydrochloric acid solution (1/3 ml/ml). Such approximate estimation results in an approximate interval or in a linguistic expression (e.g. low, moderate, excessive, etc.). To use these terms within a Decision Support System, they must be properly formalized. Such a formalization using Fuzzy Sets Theory is proposed in the paper.