Texture of vertisol in the south Serbia region

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Soil type Vertisol, present in Serbia, has higher amount of clay (30%), belonging to smectite mineral group. This affect stability of structure aggregates in water, as water and air regime in soil.

Subject of this paper is texture of Vertisol, in the region of south Serbia. According to ectomorphology and endomorphology, identification of this soil type has been done and samples for laboratory research has been taken. Texture is determinate using pipette method. Desagregation of soil has been done in mechanical, chemical and thermal way.

Texture components are extracted: sand (2 – 0.02 mm), silt (0.02 – 0.002 mm) and clay (< 0.002 mm).

Analysis shows that clay amount is 41.12% in superficial layer of A horizon, at depth 0 – 25 cm. 25 – 45 cm deep, amount of clay is rising up to 53.20%. Deeper, clay amount gradually decreases to the level of 47.84%, at 45 – 65 cm, and 44.36%, at 65 – 95 cm. Clay amount varies in interval 19.52 – 23.08%, and send amount 27.28 – 35.80%.

Texture class of soil is determined using Fere`s triangle (Soil Survey Manual, 1955). All examined soil samples belongs to texture class of clays.