

Abstract

The aim of this thesis is characterization of azonal podzols in Czechia and their role in soil carbon balance. The emphasis was put on carbon sequestration at subsurface mineral horizons. Two localities with this type of podzol were chosen: Ralsko and Týnec nad Labem. Carbon density was calculated for these two profiles: 21,107 t.ha⁻¹ for Týnec and 25,064 t.ha⁻¹ for Ralsko. When the detailed data about horizons were used, the carbon density for Ralsko was 49,97 t.ha⁻¹. A lot carbon is located in subsurface horizons under 30 cm border.

There were additional outputs from Ralsko profile - carbon density visualization for all soil horizons and its course. Carbon density depends on soil horizons thickness which is very variable in azonal podzol case, therefore it was visualised as well. Possible causes of this variability was sketched.

Keywords: azonal podzol, carbic podzol, humods, carbon density, windthrow.