

**Table 1** Physical and chemical characteristics of soddy-podzolic soils (umbric albeluvisols)

Horizon	Depth, cm	Density, g/cm <sup>3</sup>	Humus, %	Molecular ratios in				Particle-size composition, %					
				clay fraction		soil		1–0.25 mm	0.25–0.05 mm	0.05–0.01 mm	0.01–0.005 mm	0.005–0.001 mm	<0.001 mm
				SiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub> /R <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub> /R <sub>2</sub> O <sub>3</sub>						
<i>Sod</i>	0–4	0.78	4.26	-	-	10	8	4.55	4.10	40.44	15.27	16.00	19.34
<i>AY</i>	5–10	0.94	3.45	4.51	3.86	10	8	2.83	5.01	40.06	15.21	15.53	19.37
<i>El</i>	15–20	1.41	1.24	4.37	3.62	11	8	2.52	3.95	43.14	17.09	17.41	15.88
<i>ElB<sub>hh</sub></i>	25–30	1.48	1.05	3.68	3.06	-	-	1.95	1.86	41.17	16.10	18.26	20.56
<i>ElB<sub>t</sub></i>	31–44	1.47	0.57	3.67	2.96	8	6	1.12	0.65	32.20	11.26	15.76	38.90
<i>B<sub>tl</sub></i>	55–60	1.50	0.45	3.69	2.92	7	6	2.92	12.12	12.40	12.2	17.29	43.07
<i>B<sub>2</sub></i>	70–80	1.53	0.35	3.78	2.98	7	6	2.59	1.98	21.25	12.6	21.17	40.40
<i>II BD</i>	110	-	-	3.76	3.07	9	7	18.9	8.11	21.70	3.19	11.80	36.12
<i>II D</i>	140	-	-	-	-	10	7	23.0	7.97	16.08	6.67	10.99	35.27