

**S3 Table. Content of the forms and values of Zn pollution indices in sandy soils**

City	Land use / Horizon		Depth	Zn <sub>t</sub>	Zn <sub>a</sub>	Fractions [mg/kg]				Zn indices				
				[mg/kg]	I	II	III	IV	C <sub>a</sub> /C <sub>t</sub>	C <sub>f</sub>	I <sub>geo</sub>	BF		
BP	DG	Ap	0-20	144.00	114.50	32.11	53.24	23.46	35.19	79.51	16.13	3.43	75.56	
		A	20-36	154.75	115.20	31.16	52.49	24.06	47.04	74.44	17.34	3.53	69.60	
		A/C	36-65	56.97	27.00	15.16	7.55	3.24	31.01	47.40	6.38	2.09	45.56	
		CG	65-111	15.30	3.42	2.46	2.31	1.66	8.87	22.37	1.71	0.19	42.00	
		G	>111	8.93	3.28	2.09	2.02	1.75	3.07	36.75	-	-	65.61	
	AG	Ap	0-20	33.60	22.60	7.68	9.97	3.74	12.21	67.26	2.18	0.54	63.65	
		A	20-32	30.10	19.80	8.32	8.90	3.48	9.41	65.77	1.95	0.38	68.74	
		Es	32-69	15.15	3.32	2.86	1.75	1.90	8.64	21.93	0.98	0.00	42.98	
		Bhs	69-91	9.88	5.07	2.29	1.74	1.80	4.04	51.36	0.64	0.00	59.09	
	A	CG	>91	15.40	6.09	1.68	1.67	1.49	10.56	39.54	-	-	31.40	
		Ap	0-27	12.75	5.15	3.08	1.82	1.71	6.14	40.35	1.64	0.13	51.85	
		Es	27-47	12.65	4.33	2.71	1.42	1.44	7.07	34.20	1.63	0.12	44.08	
		Bhs	47-82	9.99	2.66	1.82	2.26	1.92	3.99	26.65	1.29	0.00	60.07	
		C	>82	7.76	1.66	1.45	1.30	2.15	2.86	21.42	-	-	63.16	
	LU	DG	Ap	0-20	36.70	29.06	7.29	15.19	9.18	5.04	79.19	2.61	0.80	86.26
			A	20-35	17.10	11.03	5.14	6.21	3.58	2.17	64.50	1.22	0.00	87.29
Bv			35-65	9.46	1.90	1.44	2.53	1.99	3.50	20.08	0.67	0.00	62.96	
C			>65	14.05	0.92	1.27	1.58	1.99	9.20	6.52	-	-	34.49	
AG		Ap	0-20	18.90	16.80	7.86	6.04	3.83	1.17	88.87	1.54	0.03	93.79	
		A	20-35	27.55	7.19	5.88	4.33	3.00	14.35	26.09	2.24	0.58	47.92	
		Bhs	35-50	16.45	4.39	1.76	1.34	1.71	11.64	26.69	1.34	0.00	29.22	
		G	50-67	12.15	1.50	1.26	1.24	1.62	8.03	12.30	0.99	0.00	33.88	
		C	>67	12.30	6.77	1.29	1.09	1.65	8.28	55.00	-	-	32.69	
A		Ap	0-20	22.36	8.64	4.73	2.92	3.76	10.94	38.63	1.49	0.00	51.04	
		Bv	20-50	9.81	2.83	1.79	1.52	2.22	4.28	28.81	0.65	0.00	56.38	
		C	>50	15.00	0.27	1.30	1.53	1.59	10.58	1.81	-	0.00	29.44	
T	DG	Ap	0-20	56.35	27.70	6.29	10.24	5.03	34.79	49.15	1.63	0.12	38.26	
		A	20-40	52.20	24.30	5.26	10.11	5.72	31.11	46.54	1.51	0.01	40.40	
		A	40-65	45.45	14.35	2.24	6.13	3.58	33.50	31.57	1.31	0.00	26.28	
		AG	65-90	35.33	10.41	1.88	4.84	3.68	24.94	29.45	1.02	0.00	29.42	
		G	>100	34.65	9.50	1.80	5.03	3.23	24.59	27.40	-	-	29.02	
	AG	Ap	0-20	49.63	27.43	10.06	11.89	4.23	23.45	55.27	1.73	0.21	52.75	
		A	20-40	20.45	8.60	3.72	5.11	2.30	9.32	42.05	0.71	0.00	54.41	
		A	40-60	19.45	1.56	1.73	2.31	2.22	13.18	8.02	0.68	0.00	32.22	
		AG	60-80	18.15	1.57	1.92	2.21	2.13	11.88	8.62	0.63	0.00	34.52	
		G	80-100	23.85	4.02	1.04	2.28	2.27	18.26	16.83	0.83	0.00	23.44	
		C	>100	28.68	4.23	0.96	2.25	1.71	23.75	14.75	-	-	17.18	
		Ap	0-20	21.58	7.23	4.14	2.75	2.52	12.17	33.48	2.13	0.51	43.60	
	A	A	20-32	16.22	7.12	3.16	2.66	2.57	7.83	43.90	1.60	0.09	51.74	
		Bv	32-55	13.88	1.86	2.50	1.78	1.55	8.06	13.39	1.37	0.00	41.93	
		Bv/C	55-130	10.64	1.68	2.22	1.64	3.37	3.41	15.82	1.05	0.00	67.95	
		C	>130	10.14	1.56	2.39	1.78	1.88	4.09	15.35	-	-	59.65	

Explanations: BP – Biała Podlaska, LU – Lubartów, T – Tarnobrzeg, DG – domestic garden,

AG – allotment garden, A - arable field