

Table S1: Chemical element concentrations (mean $\pm$ SD; $n = 3$) in dry shoot and root samples of maize, cucumber and pea exposed to different Cd levels for 7 days. *Cd0*, *Cd20* and *Cd50*: 0 (control), 20 and 50 mg Cd kg⁻¹ substrate, respectively. Asterisks represent significant differences from the controls obtained using one-way ANOVA with Tukey's test or the nonparametric Kruskal–Wallis test with Dunn's test. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, NS not significant.

Species	Organ	Cd level	Cd mg kg ⁻¹	N m/m%	P m/m%	K m/m%	Ca m/m%	Cu mg kg ⁻¹	Mg m/m%	Fe mg kg ⁻¹	Zn mg kg ⁻¹
Maize	Shoot	Cd0	1.90	3.04	0.212	3.92	0.306	17.9	0.431	177.3	10.73
			± 0.41	± 10.05	± 0.013	± 0.26	± 0.007	± 1.7	± 0.019	± 7.8	± 0.67
		Cd20	14.33	2.57	0.176	3.43	0.322	17.2	0.456	142.0	8.00
			$\pm 0.83^{***}$	$\pm 0.15^{**}$	$\pm 0.011^*$	$\pm 0.09^*$	$\pm 0.004^{NS}$	$\pm 0.8^{NS}$	$\pm 0.032^{NS}$	$\pm 15.9^{NS}$	$\pm 0.87^*$
		Cd50	17.94	2.56	0.171	3.35	0.285	17.2	0.421	205.3	8.58
			$\pm 1.69^{***}$	$\pm 0.16^{**}$	$\pm 0.011^*$	$\pm 0.09^*$	$\pm 0.020^{NS}$	$\pm 1.0^{NS}$	$\pm 0.020^{NS}$	$\pm 44.1^{NS}$	$\pm 0.79^*$
	Root	Cd0	2.20	2.60	0.091	2.35	0.349	80.6	1.280	1930	15.93
			± 0.47	± 0.19	± 0.013	± 0.010	± 0.036	± 1.9	± 0.056	± 217	± 1.74
		Cd20	109.1	2.66	0.085	2.27	0.332	77.2	1.087	1847	19.70
			$\pm 15.4^{***}$	$\pm 0.23^{NS}$	$\pm 0.008^{NS}$	$\pm 0.09^{NS}$	$\pm 0.020^{NS}$	$\pm 3.2^{NS}$	$\pm 0.339^{NS}$	$\pm 284^{NS}$	$\pm 2.33^{NS}$
		Cd50	139.8	2.59	0.083	2.17	0.353	72.9	1.290	2347	18.23
			$\pm 19.4^{***}$	$\pm 0.20^{NS}$	$\pm 0.010^{NS}$	$\pm 0.26^{NS}$	$\pm 0.012^{NS}$	$\pm 6.6^{NS}$	$\pm 0.266^{NS}$	$\pm 261^{NS}$	$\pm 2.80^{NS}$
Cucumber	Shoot	Cd0	1.57	2.70	0.341	1.98	1.893	20.8	1.653	136.1	10.59
			± 0.30	± 0.14	± 0.056	± 0.19	± 0.042	± 2.3	± 0.180	± 23.0	± 1.16
		Cd20	27.90	2.63	0.357	1.86	1.587	19.5	1.717	83.6	6.41
			$\pm 2.40^{***}$	$\pm 0.09^{NS}$	$\pm 0.023^{NS}$	$\pm 0.11^{NS}$	$\pm 0.081^{**}$	$\pm 2.0^{NS}$	$\pm 0.117^{NS}$	$\pm 8.8^*$	$\pm 1.22^*$
		Cd50	38.13	2.62	0.329	1.81	1.330	15.9	1.760	92.6	6.25
			$\pm 3.52^{***}$	0.16^{NS}	$\pm 0.012^{NS}$	$\pm 0.14^{NS}$	$\pm 0.026^{***}$	$\pm 1.3^*$	$\pm 0.044^{NS}$	$\pm 9.9^*$	$\pm 1.19^*$
	Root	Cd0	4.98	2.60	0.161	2.49	0.574	104.0	1.527	3047	90.2
			± 0.81	± 0.19	± 0.011	± 0.24	± 0.064	± 4.0	± 0.055	± 153	± 12.0
		Cd20	604	2.88	0.171	2.38	0.521	96.8	1.323	2187	94.5
			$\pm 47.4^{***}$	$\pm 0.20^{NS}$	$\pm 0.015^{NS}$	$\pm 0.12^{NS}$	$\pm 0.018^{NS}$	$\pm 4.2^{NS}$	$\pm 0.116^{NS}$	$\pm 165^{**}$	$\pm 23.1^{NS}$
		Cd50	889.7	2.79	0.158	2.22	0.469	86.8	1.337	2503	102.0
			$\pm 54.3^{***}$	$\pm 0.20^{NS}$	$\pm 0.007^{NS}$	$\pm 0.18^{NS}$	$\pm 0.015^*$	$\pm 6.3^*$	$\pm 0.219^{NS}$	$\pm 196^*$	$\pm 20.8^{NS}$
Pea	Shoot	Cd0	1.75	3.31	0.243	1.67	0.954	11.2	0.742	68.9	7.74
			± 0.29	± 0.13	± 0.028	± 0.04	± 0.081	± 1.2	± 0.048	± 7.0	± 0.55
		Cd20	15.33	2.57	0.174	1.41	0.946	8.4	0.796	64.4	8.39
			$\pm 0.92^{***}$	$\pm 0.18^*$	$\pm 0.027^*$	$\pm 0.05^*$	$\pm 0.033^{NS}$	$\pm 0.8^*$	$\pm 0.082^{NS}$	$\pm 2.5^{NS}$	$\pm 1.01^{NS}$
		Cd50	33.63	2.35	0.182	1.45	0.972	8.2	0.821	62.8	5.52
			$\pm 2.42^{***}$	$\pm 0.37^{**}$	$\pm 0.010^*$	$\pm 0.12^*$	$\pm 0.050^{NS}$	$\pm 0.6^*$	$\pm 0.023^{NS}$	$\pm 3.8^{NS}$	$\pm 0.67^*$
	Root	Cd0	2.37	3.28	0.168	3.10	0.495	103.9	0.891	1379	75.13
			± 0.33	± 0.11	± 0.008	± 0.13	± 0.032	± 7.4	± 0.072	± 114	± 7.99
		Cd20	256.3	2.62	0.168	2.52	0.436	73.3	0.735	935	42.20
			$\pm 30.6^{***}$	$\pm 0.14^{**}$	$\pm 0.005^{NS}$	$\pm 0.09^{***}$	$\pm 0.017^*$	$\pm 7.6^{**}$	$\pm 0.031^*$	$\pm 74^{**}$	$\pm 4.35^{***}$
		Cd50	470.4	2.44	0.178	2.70	0.390	55.0	0.685	945	40.57
			$\pm 28.4^{***}$	$\pm 0.14^{***}$	$\pm 0.006^{NS}$	$\pm 0.04^{**}$	$\pm 0.014^{**}$	$\pm 5.4^{***}$	$\pm 0.009^{**}$	$\pm 82^{**}$	$\pm 2.06^{***}$

Table S2: Relative changes in the measured plant parameters compared to controls for maize, cucumber and pea exposed to 20 and 50 mg kg⁻¹ substrate Cd levels (*Cd20* and *Cd50*, respectively) for 7 days. C_R – root electrical capacitance; Chl – leaf chlorophyll content; F_v/F_m – photosynthetic efficiency; g_s – stomatal conductance; SDM – shoot dry mass; RDM – root dry mass; RL – total root length.

Parameter	Maize		Cucumber		Pea	
	Cd20	Cd50	Cd20	Cd50	Cd20	Cd50
C _R	-3.9%	-15.9%	-6.7%	-16.2%	-10.5%	-35.9%
Chl	-5.0%	-9.4%	-7.1%	-13.5%	-40.4%	-62.0%
F _v /F _m	-1.3%	-0.6%	+0.5%	-0.1%	-22.4%	-65.4%
g _s	-18.2%	-25.4%	-21.7%	-35.6%	-52.3%	-81.7%
SDM	-0.6%	-4.8%	-3.5%	-15.9%	-16.9%	-40.6%
RDM	+0.2%	-13.3%	-14.0%	-22.8%	-19.0%	-37.1%
RL	-2.8%	-22.8%	-6.1%	-31.3%	-24.7%	-43.8%