

Table 2.

A–D. Site specific multiple linear regression equations describe log Cd_{DGT} and log Cd_{plant} concentrations 2004–2006.

2A) Log Cd _{DGT} (µg/L)			N = 16	2B) Log Cd _{DGT} (µg/L) including (Cd _{fertilizer})	N = 16
Site	Year	MLR equation	MLR statistics	MLR equation	MLR statistics
Klamath	2004	= 1.9 – (2.5 log Cu _{soln}) – (0.28 pH)	R ² = 0.53; P = 0.03	No change (Cd _{fertilizer} not significant)	–
	2005	= 2.1 – (1.4 log Cu _{soln}) – (0.10 CEC)	R ² = 0.61; P = 0.002	= 0.56 – (0.102 CEC) + (0.057 Cd _{fertilizer})	R ² = 0.33; P = 0.07
	2006	= 1.8 – (0.53 pH)	R ² = 0.28; P = 0.04	= – 0.26 – (0.19 pH) + (0.029 Cd _{fertilizer})	R ² = 0.47; P = 0.02
Hermiston	2004	= 1.2 – (1.7 log Cu _{soln})	R ² = 0.31; P = 0.06	No change (Cd _{fertilizer} not significant)	–
	2005 ^a	= 8.2 + (1.2 log Cd _{total}) – (0.79 pH) – (0.64 CEC)	R ² = 0.75; P < 0.001	= 8.4 + (1.1 log Cd _{total}) – (0.67 pH) – (0.68 CEC) + (0.013 Cd _{fertilizer})	R ² = 0.76; P = 0.002
	2006 ^a	= – 5.7 + (1.9 log Cd _{total})	R ² = 0.46; P = 0.004	= – 1.4 + (1.6 log Cd _{total}) + (0.0168 Cd _{fertilizer})	R ² = 0.73; P < 0.001
Columbia	2004	= 6.2 – (1.5 pH)	R ² = 0.25; P = 0.1	No change (Cd _{fertilizer} not significant)	R ² = 0.44; P = 0.08
	2005	Fallow		Fallow	–
	2006 ^a	= 2.0 – (0.66 pH)	R ² = 0.53; P = 0.002	= – 0.56 – (0.13 pH) + (0.024 Cd _{fertilizer})	R ² = 0.57; P = 0.004
Willamette	2004	= – 3.3 – (1.2% O.M.) + (0.26 CEC)	R ² = 0.69; P = 0.02	No change (Cd _{fertilizer} not significant)	–
	2005 ^a	= 6.5 – (0.38 CEC)	R ² = 0.26; P = 0.04	No change (Cd _{fertilizer} not significant)	–
	2006 ^a	= 3.8 – (0.71% O.M.) – (0.20 CEC)	R ² = 0.64; P = 0.001	= 19.9 – (1.5 CEC) + (0.027 Cd _{fertilizer})	R ² = 0.58; P = 0.01
2C) Log Cd _{plant} (µg/kg)			N = 16	2D) Log Cd _{plant} (µg/kg) including (Cd _{fertilizer})	N = 16
Klamath	Potato ^a	= 1.9 + (0.49% O.M.) + (0.030 Cd _{DGT})	R ² = 0.56; P = 0.03	= 2.2 + (0.049% O.M.) + (0.022 Cd _{fertilizer}) + (0.013 log Cd _{DGT})	R ² = 0.71; P = 0.02
	Wheat ^a	= – 0.31 + (2.4% O.M.) + (0.11 log Cd _{DGT}) – (0.01 Znirr)	R ² = 0.80; P < 0.001	= 2.0 + (0.087 log Cd _{DGT}) + (0.0066 Cd _{fertilizer}) – (0.0062 Znirr)	R ² = 0.79; P < 0.001
	Wheat ^a	= 0.62 + (1.4% O.M.)	R ² = 0.56; P < 0.001	= 0.78 + (1.2% O.M.) + (0.0018 Cd _{fertilizer})	R ² = 0.56; P = 0.005
Hermiston	Wheat	= 0.58 + (0.55 log Cd _{total})	R ² = 0.41; P = 0.008	No change (Cd _{fertilizer} not significant)	–
	Potato ^a	= 2.5 – (0.10 pH)	R ² = 0.25; P = 0.05	= 0.43 – (0.25 pH) + (0.024 Cd _{fertilizer})	R ² = 0.80; P < 0.001
	Wheat ^a	= 3.0 + (0.16 Cd _{DGT}) – (0.15 pH)	R ² = 0.57; P = 0.004	= 1.8 + (0.014 Cd _{fertilizer})	R ² = 0.64; P < 0.001
Columbia	Wheat	No significant variables		No significant variables	–
	Fallow			Fallow	–
	Wheat	No significant variables		No significant variables	–
Willamette	Wheat ^a	= 1.8 + (0.52 log Cd _{total}) – (0.069 CEC)	R ² = 0.51; P = 0.01	= 2.4 – (0.047 CEC) + (0.014 Cd _{fertilizer})	R ² = 0.65; P = 0.001
	Wheat ^a	= 4.9 – (0.65 pH)	R ² = 0.54; P = 0.001	= 3.8 – (0.42 pH) + (0.0039 Cd _{fertilizer})	R ² = 0.58; P = 0.003
	Wheat	= 1.8 + (0.19 log Cd _{soln})	R ² = 0.39; P = 0.009	No change (Cd _{fertilizer} not significant)	–

Table 2A,C shows significant influences of soil physical and chemical properties that are correlative with log Cd_{DGT} and log Cd_{plant}. Table 2B,D shows regression models that include the effect of Cd input from phosphatic fertilizer application.

^aStatistically significant treatment effect observed.