

## Erratum to: Predicting zinc bioavailability to wheat improves by integrating pH dependent nonlinear root surface adsorption

Andreas Duffner · Ellis Hoffland · Liping Weng ·  
Sjoerd E. A. T. M. van der Zee

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There were errors in the presented 0.01 M CaCl<sub>2</sub> extracted Zn (second column in Table 2) due to a mistake in the conversion from mass to mol. The molecular weight of Zn (65.38) was wrongly used

as 56.38. The correction of this mistake has influence on the fourth column of Table 2, Eq. 6, and Figs. 3, 4 and 5.

The corrected values of the table and equation and of the figures are shown below in red.

The changes have, however, no influence on the text and conclusion of the paper. Equation 6:

$$[Zn]_{RS} = 10.14[Zn]_{CaCl_2}^{0.37}[H^+]^{-0.18} \quad (r^2 = 0.93, p = 0.001) \quad (6)$$

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The online version of the original article can be found at <http://dx.doi.org/10.1007/s11104-013-1845-3>.

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A. Duffner (✉) · E. Hoffland · L. Weng  
Department of Soil Quality, Wageningen University,  
P.O. Box 47, 6700 AA Wageningen, The Netherlands  
e-mail: [Andreas.Duffner@wur.nl](mailto:Andreas.Duffner@wur.nl)

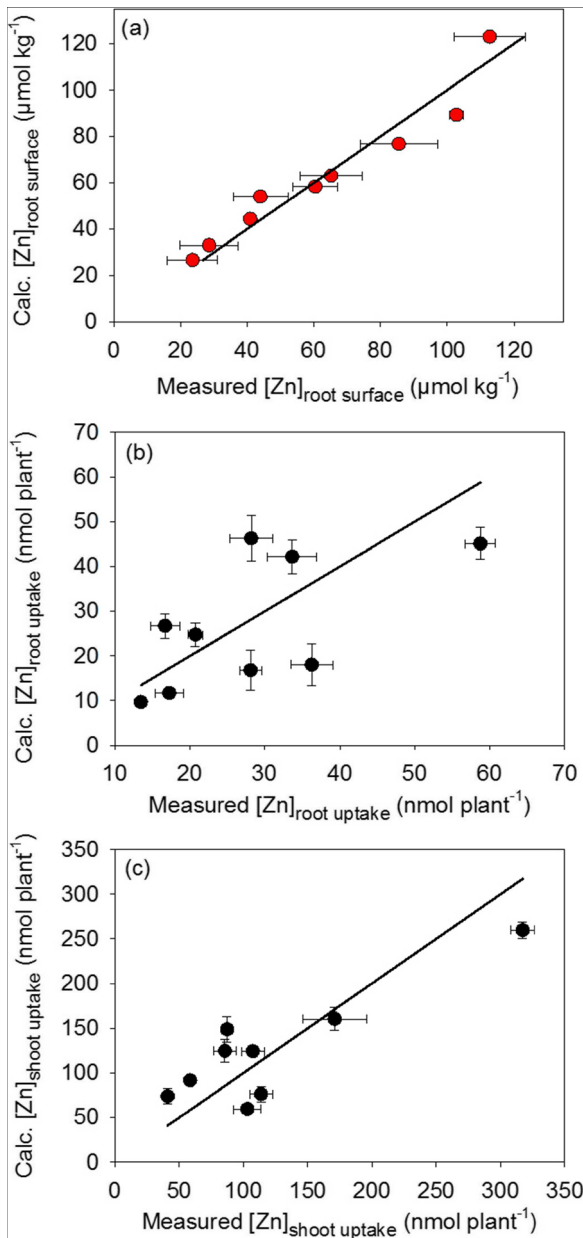
S. E. A. T. M. van der Zee  
Soil Physics and Land Management Group, Wageningen  
University, Wageningen, The Netherlands

**Table 1** Zn concentrations in the DTPA and the CaCl<sub>2</sub> soil extracts, Zn<sup>2+</sup> concentrations and the proportion of Zn<sup>2+</sup> concentration to the total Zn concentration (means and standard error; *n*=3)

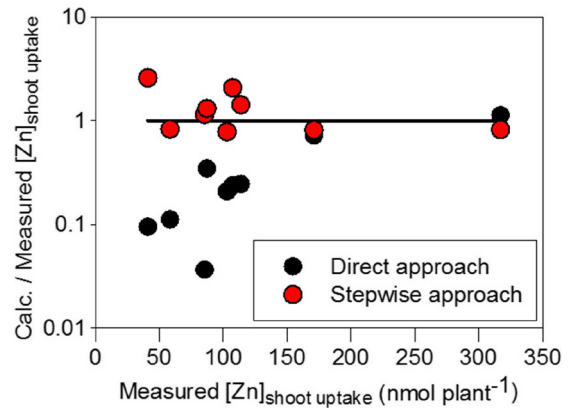
Soil	0.005 <i>M</i> DTPA	0.01 <i>M</i> CaCl <sub>2</sub>	-log[Zn <sup>2+</sup> ] <sup>#</sup> <i>M</i>	[Zn <sup>2+</sup> ]/[Zn] <sup>‡</sup> %
	[Zn]	[Zn]		
	μmol kg <sup>-1</sup>	μmol kg <sup>-1</sup>		
Anatolia	1.7 (0.1)	0.21 (0.00)	9.3 (0.4)	2.4
Bologna	5.8 (0.2)	0.50 (0.02)	8.9 (0.4)	2.5
Dalwallinu	0.8 (0.0)	1.14 (0.03)	7.1 (0.3)	69.9
Droevendaal	7.0 (1.0)	1.18 (0.04)	7.8 (0.2)	13.4
Lancelin	1.0 (0.0)	0.64 (0.02)	8.0 (0.3)	15.7
Patancheru	8.3 (0.3)	0.14 (0.01)	9.7 (0.2)	1.4
Wukro-C	7.6 (1.2)	1.44 (0.05)	9.5 (0.5)	0.2
Wukro-S	34.0 (0.7)	0.85 (0.03)	8.6 (0.3)	3.0
Xeraco	99.6 (4.0)	0.17 (0.00)	9.0 (0.3)	5.7

<sup>#</sup>Determined with the Donnan Membrane Technique

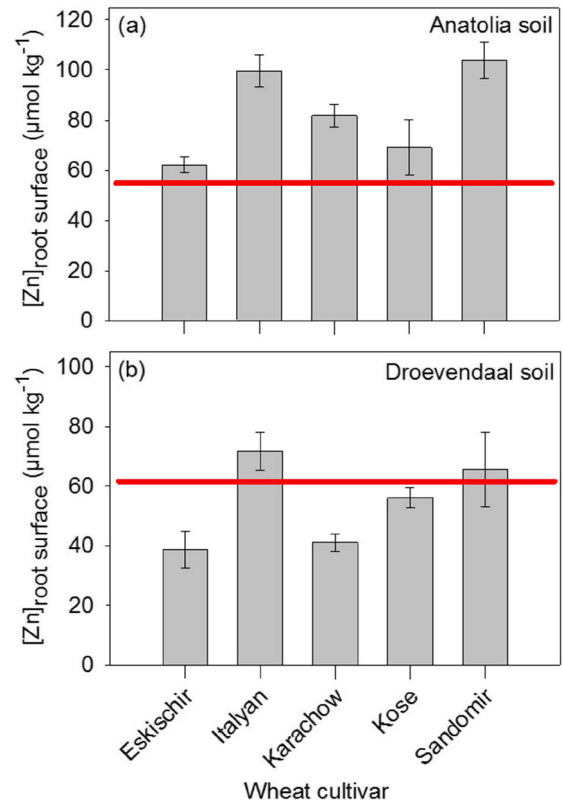
<sup>‡</sup>Proportion of Zn<sup>2+</sup> concentration to the total Zn concentration in the CaCl<sub>2</sub> extract



**Fig. 3** Measured and calculated root surface adsorbed Zn (a), root Zn uptake (b) and shoot Zn uptake (c) based on the equations (Eqs. 6, 8 and 9) of the (non)linear regression analysis with the nine different soils (calibration experiment), respectively. The black solid line represents the 1:1 line. Error bars represent standard errors;  $n=3$



**Fig. 4** Measured shoot Zn uptake of the calibration experiment plotted against the quotient (log scale) of the calculated and the measured shoot Zn uptake. The calculated shoot Zn uptake is based on the outcome of the direct approach (Eq. 2) and the stepwise approach (Eqs. 6, 8 and 9), respectively. The calculated root surface adsorbed Zn, using CaCl<sub>2</sub> soil extracted Zn and soil pH, (Eq. 6) was used as input to calculate the root Zn uptake (Eq. 8). The calculated root Zn uptake (Eq. 8) was used as input to calculate the shoot Zn uptake (Eq. 9). The black solid line represents the 1:1 line



**Fig. 5** Measured root surface adsorbed Zn of the five wheat cultivars grown in the Anatolia (a) and the Droevendaal (b) soil in the validation experiment. The black solid line represents the calculated values based on equation 6. Error bars represent standard errors;  $n=3$