



Corrigendum: Role of Hydraulic Signal and ABA in Decrease of Leaf Stomatal and Mesophyll Conductance in Soil Drought-Stressed Tomato

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A Corrigendum on

Role of Hydraulic Signal and ABA in Decrease of Leaf Stomatal and Mesophyll Conductance in Soil Drought-Stressed Tomato

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In the original article, there was an error in **Figure 1** as published. The value of Ψ_{soil} at 33 DAT should be -1.44 MPa. The corrected **Figure 1** appears here.

The associated text in the *Results* section *Dynamic of Soil Water Status* has also been updated to reflect the correction to **Figure 1**, as described below.

The originally published sentence “By withholding irrigation from 27 to 33 DAT during the progressive drying process, RSWC in the drought treatment decreased gradually from 82.90 to 37.27% and Ψ_{soil} decreased by 1.12 MPa correspondingly.” has been corrected to read “By withholding irrigation from 27 to 33 DAT during the progressive drying process, RSWC in the drought treatment decreased gradually from 82.90 to 37.27% and Ψ_{soil} decreased by 1.04 MPa correspondingly.”

In the original article, there was an error in **Figure 3** as published. The value of Ψ_{soil} at 33 DAT should be -1.44 MPa. The corrected **Figure 3** appears here.

The associated text in the *Results* section *Quantitative Analysis of Photosynthetic Limitation in Response to Soil Drying* has also been updated to reflect the correction to **Figure 3**, as described below.

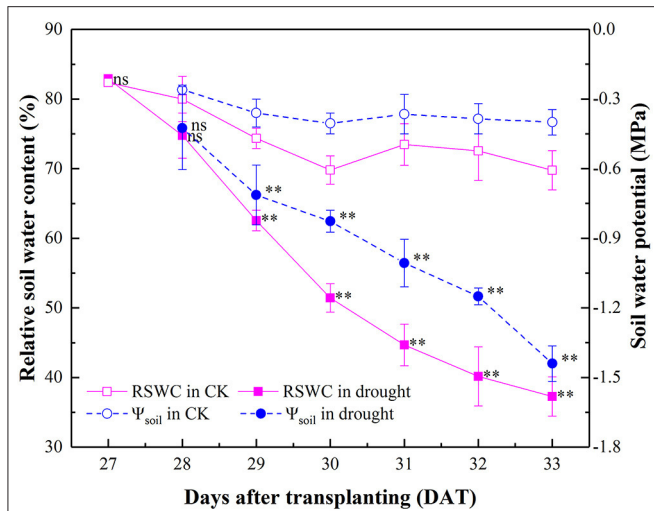


FIGURE 1 | Dynamics of RSWC and Ψ_{soil} in the well-watered (CK) and drought-stressed tomato seedlings during 27–33 DAT. Mean values and SD were presented ($n = 6$). ns indicated no significant difference and ** indicated significant difference at $P < 0.01$ level between drought and well-watered treatment.

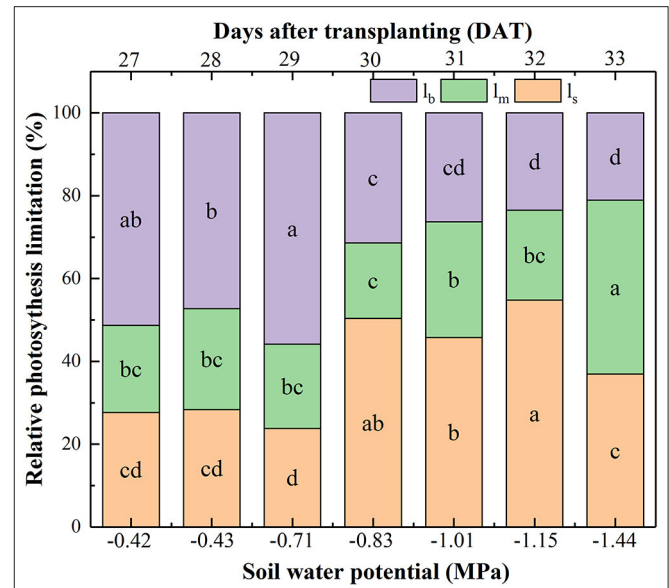


FIGURE 3 | Effect of soil water potential (Ψ_{soil}) on the relative contribution of the photosynthesis capacity limiting factors: limitations of A_n resulting from g_s (l_a), g_m (l_m), and biochemical photosynthetic capacity (l_b) after transplanting. Data were means. Different letters indicated statistically significant difference between well-watered (CK) and drought plants at $P < 0.05$ level.

TABLE 2 | Sensitivity analyses of the effects of $\pm 20\%$ error of light mitochondrial respiration (R_d), chloroplast CO_2 compensation point (Γ^*), electron transport rate (J_f), and intercellular CO_2 concentration (C_i) on calculation of g_m in well-watered and severe drought tomato at $\Psi_{soil} = -1.44$ MPa as compared with the original value of g_m .

Factors	g_m in CK	g_m in drought	Factors	g_m in CK	g_m in drought
$R_d-20\%$	0.182 ± 0.006 ns	0.013 ± 0.002 ns	$J_f-20\%$	1.208 ± 0.74 **	0.014 ± 0.002 ns
$R_d-10\%$	0.189 ± 0.005 ns	0.013 ± 0.002 ns	$J_f-10\%$	0.309 ± 0.020 ns	0.014 ± 0.002 ns
$R_d+10\%$	0.206 ± 0.07 ns	0.014 ± 0.002 ns	$J_f+10\%$	0.160 ± 0.005 ns	0.013 ± 0.002 ns
$R_d+20\%$	0.216 ± 0.08 ns	0.014 ± 0.002 ns	$J_f+20\%$	0.141 ± 0.004 ns	0.013 ± 0.002 ns
$\Gamma^*-20\%$	0.146 ± 0.005 **	0.013 ± 0.002 ns	$C_i-20\%$	0.433 ± 0.025 **	0.020 ± 0.003 *
$\Gamma^*-10\%$	0.168 ± 0.009 **	0.013 ± 0.002 ns	$C_i-10\%$	0.270 ± 0.011 **	0.017 ± 0.003 ns
$\Gamma^*+10\%$	0.238 ± 0.015 **	0.014 ± 0.002 ns	$C_i+10\%$	0.155 ± 0.005 **	0.013 ± 0.002 ns
$\Gamma^*+20\%$	0.301 ± 0.011 **	0.014 ± 0.002 ns	$C_i+20\%$	0.127 ± 0.004 **	0.011 ± 0.002 ns

Data were mean \pm SD ($n = 6$). ns indicated no significant difference and ** indicated significant difference at $P < 0.01$ level between drought and well-watered treatment.

The originally published sentence “Thirdly, with Ψ_{soil} decreasing to -1.54 MPa, l_m contributed to 41.99% reduction in photosynthesis, followed by l_s (36.93%) and l_b (21.08%), showing that g_m was the most important limiting factor to photosynthetic capacity under the severe drought condition.” has been corrected to read “Thirdly, with Ψ_{soil} decreasing to -1.44 MPa, l_m contributed to 41.99% reduction in photosynthesis, followed by l_s (36.93%) and l_b (21.08%), showing that g_m was the most important limiting factor to photosynthetic capacity under the severe drought condition.”

In the original article, there were errors in **Table 2** as published. Owing to a miscalculation, the values of the parameters were incorrect. The corrected **Table 2** appears here.

The associated text has also been updated to reflect to reflect the correction to **Table 2**, as described below.

In the *Results* section *Sensitivity Analyses of Parameters in the Estimation g_m* , the originally published sentence “20% variation of R_d , Γ^* did not affect g_m significantly (**Table 2**),” has been corrected to read “10% variation of R_d and J_f did not affect g_m significantly, whereas Γ^* has a significantly effect on g_m in well-watered plants (**Table 2**).”

In the *Results* section *Sensitivity Analyses of Parameters in the Estimation g_m* , the originally published sentence “20% underestimation of C_i resulted in an overestimation of g_m , while g_m was unaffected by overestimation of C_i in both the well-watered and drought treatments.” has been corrected to read “Variation of C_i resulted in an overestimation of g_m in well-watered plants, whereas g_m in drought treatment was unaffected by overestimation of C_i .”

In the *Discussion* section *Response of g_m to Ψ_{leaf} and ABA Under Soil Drought*, the originally published sentence “However,

the sensitivity analyses showed that an overestimation of C_i did not induce g_m decline neither in the well-watered nor drought-stressed plants (**Table 2**.)” has been corrected to read “However, the sensitivity analyses showed that an overestimation of C_i did not induce g_m decline in drought-stressed plants (**Table 2**.)”

In the original article, there were errors (incorrect P -values) in the following sentence from the *Results* section Ψ_{leaf} and ABA in the Regulation of g_s , g_m , g_t , and A_n : “In summary, ABA was negatively related to g_m ($r = -0.64$, $P < 0.001$) and g_s ($r = -0.55$, $P < 0.001$) (**Table 1**.)” The sentence should have read “In summary, ABA was negatively related to g_m ($r = -0.64$, $P < 0.01$) and g_s ($r = -0.55$, $P < 0.01$) (**Table 1**.)”

The authors apologize for these errors and state that they do not change the scientific conclusions

of the article in any way. The original article has been updated.

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