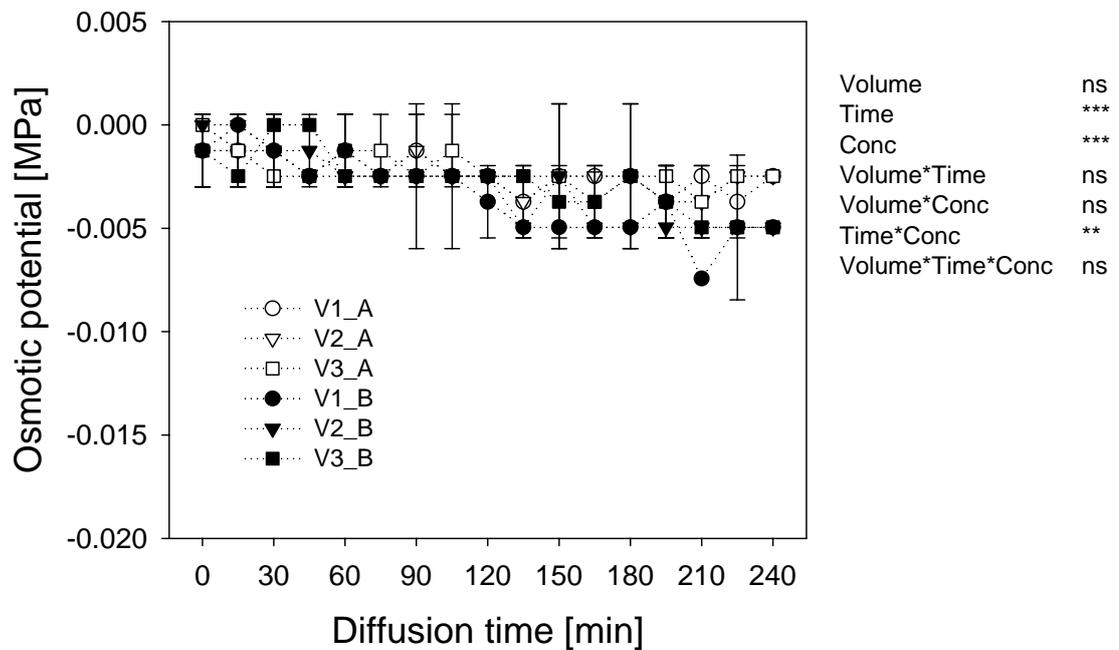


**Alteration of cell-wall porosity is involved in osmotic stress-induced enhancement of aluminium resistance in common bean (*Phaseolus vulgaris* L.)**

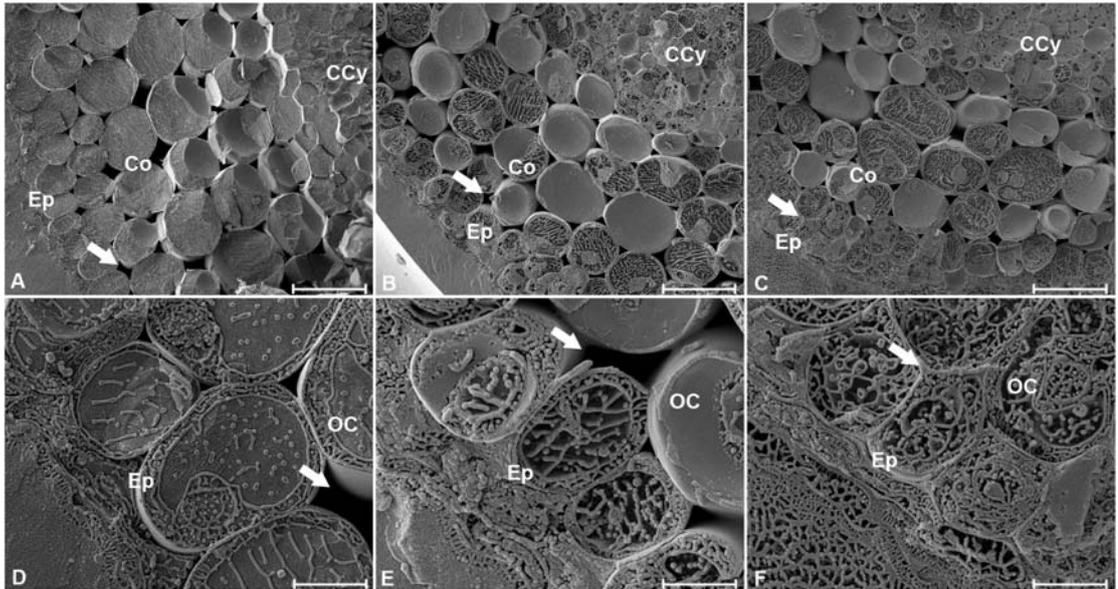
Zhong-Bao Yang, Dejene Eticha, Idupulapati Madhusudana Rao, Walter Johannes

Horst

**Supplementary material**



**Figure S1.** Diffusion of low molecular weight PEG through DMT. PEG 6000 was incubated in DMT in 1.0 (V1), 1.5 (V2) or 2.0 (V3) L distilled water. A = original solution, B = 10 x concentrated solution. For the ANOVA, \*\*, \*\*\* denote significant differences at  $P < 0.01$ ,  $P < 0.001$ , respectively; ns = not significant (F test).



**Figure S2.** Freeze-fracture scanning electron micrographs of root-tip cross-sections (1-5 mm from the root apex) of common bean genotype VAX 1 grown for 4 h in the presence of different molecular weight PEG. Upper row show root cross-section segments from the epidermis (Ep) through the cortex (Co) to the central cylinder (CCy), lower row pictures show the epidermis and one outer cortical cell layer (OC). Arrows indicate the presence (A, B, D, E,) or absence (C, F) of intercellular spaces between the epidermis and the outer cortical cell layer. A, D: control; B, E: PEG 1000; C, F: PEG 6000. Scale bars correspond to 40  $\mu\text{m}$  in A, B and C, 10  $\mu\text{m}$  in D, E and F.