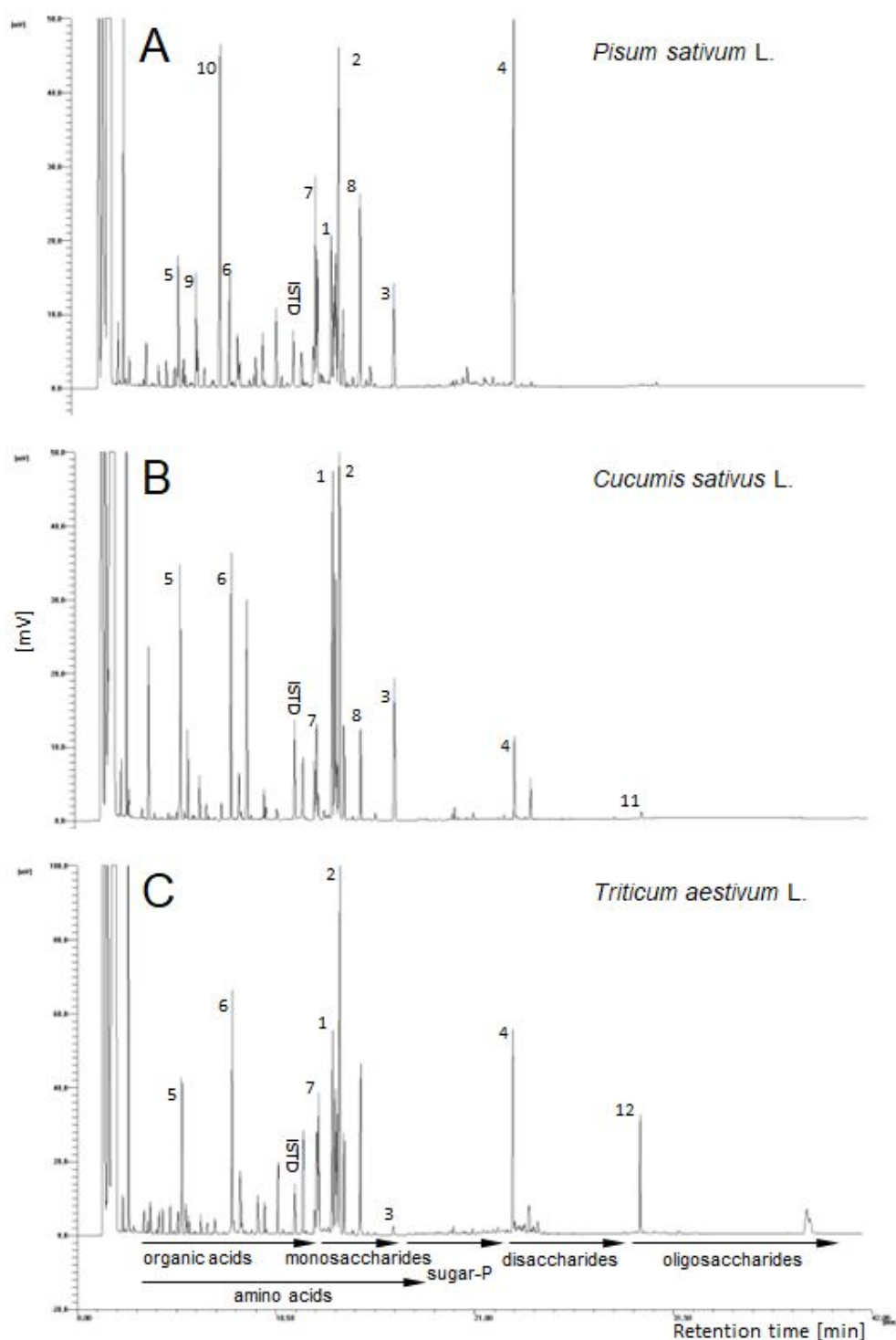
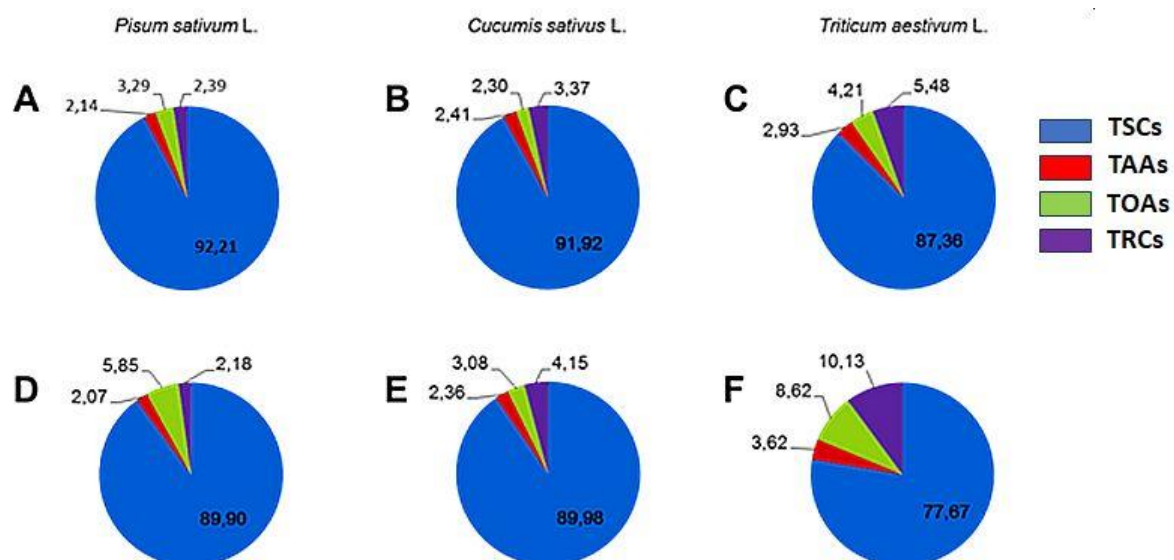


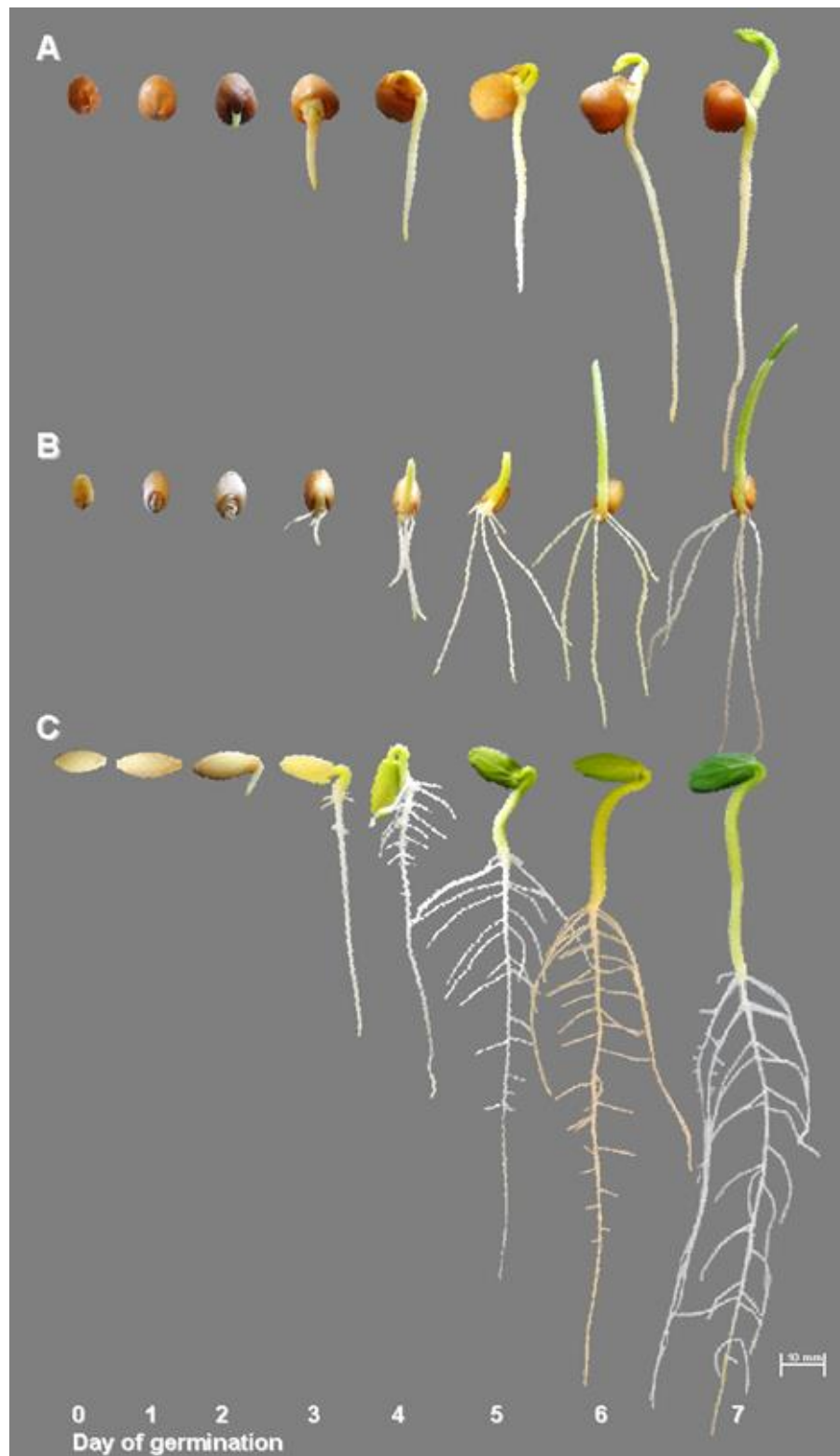
## Supplementary figures



**Figure S1.** Chromatograms of TMS-derivatives of polar metabolites in roots of 3-day-old seedlings of pea (A), cucumber (B) and wheat (C), obtained by the GC-FID method. Selected metabolites common for seedlings: 1 – fructose, 2 – glucose, 3 – *myo*-inositol, 4 – sucrose, 5 – phosphoric acid, 6 – malate, 7 – citrate, 8 – hexose\*. Species-specific metabolites: 9, 10 – *di*-ethylamine\*\* and homoserine (in pea), 11 – raffinose (in cucumber) and 12 – 1-kestose (in wheat). \* and \*\* - both metabolites not confirmed with original standards



**Figure S2.** Percentage of total concentration of soluble carbohydrates (TSCs), amino acids (TAAs), organic acids (TOAs) and remaining compounds (TRCs) in the total content of polar metabolites in embryonic axis/embryo (A-C) and storage tissues (D-F) of dry seeds of pea (A, D), cucumber (B, E) and grains of wheat (C, F).



**Figure S3.** Photographs of changes in the morphology of pea (*Pisum sativum* L. cv Hubal, A), wheat (*Triticum aestivum* L. cv Forkida, B) and cucumber (*Cucumis sativus* L. cv Polan F1, C) during 7 days of germination at 20/10°C (for pea and wheat) or 25/20°C (for cucumber) at photoperiod 14 h light/10 h darkness.