

Table 3 Whole leaf contents as well as sugar and sugar alcohol concentrations in the vacuolar, stromal and cytosolic compartments of leaf cells from common plantain, sea plantain, peach, and celery

	Whole leaf content $\mu\text{mol (g FW)}^{-1}$	Concentration (mM)		
		Vacuole	Stroma	Cytosol
Common plantain				
Sorbitol	22 \pm 3.1	15 \pm 2.3	118 \pm 34	133 \pm 48
myo-Inositol	0.7 \pm 0.2	0.1 \pm 0.1	8.8 \pm 1.3	6.1 \pm 0.7
Glucose and fructose	2.4 \pm 1.1	3.2 \pm 0.2	1.4 \pm 2.0	0.6 \pm 0.7
Sucrose	1.2 \pm 0.1	0.9 \pm 0.2	0.1 \pm 0.2	12 \pm 2.5
Sea plantain				
Sorbitol	73 \pm 9.1	87 \pm 8.0	201 \pm 140	13 \pm 8.4
myo-Inositol	0.8 \pm 0.2	0.2 \pm 0.1	15 \pm 0.4	0 \pm 0
Glucose and fructose	11 \pm 2.5	15 \pm 0.5	0.2 \pm 0.5	0 \pm 0
Sucrose	1.4 \pm 0.2	0.8 \pm 0.3	0.1 \pm 0.1	20 \pm 4.9
Peach				
Sorbitol	148 \pm 0.1	220 \pm 15	461 \pm 165	290 \pm 62
myo-Inositol	1.5 \pm 0.1	1.5 \pm 0.4	8.5 \pm 3.6	4.1 \pm 3.3
Glucose and fructose	30 \pm 6.1	65 \pm 1	5.0 \pm 5.0	5.0 \pm 5.0
Sucrose	38 \pm 2.1	64 \pm 4.5	39 \pm 26	106 \pm 15
Celery				
Mannitol	108 \pm 121	27 \pm 7.0	294 \pm 30	100 \pm 39
myo-Inositol	1.4 \pm 0.1	1.1 \pm 0.3	9.0 \pm 1.9	1.7 \pm 0.9
Glucose and fructose	17 \pm 2.0	28 \pm 0.3	2.5 \pm 1.7	2.9 \pm 1.2
Sucrose	35 \pm 4.3	45 \pm 3.3	5.2 \pm 3.2	86 \pm 28

Mean values \pm SD