

Supplemental table 1. List of seed embryos used in this study indicating the Order, Family and the name for each Species.

Order	Family	Species	Endodermis ^a	Cortex ^a	Protodermis ^a
Brassicales	Brassicaceae	<i>Arabidopsis thaliana</i>	X		
	Brassicaceae	<i>Camelina sativa</i>	X	X	
	Brassicaceae	<i>Nasturdium officinale</i>	X	X	
	Brassicaceae	<i>Lepidium sativum</i>	X	X	
	Brassicaceae	<i>Brassica napus</i>	X	X	
	Cleomaceae	<i>Cleome hassleriana</i>	X	X	
	Capparaceae	<i>Capparis spinosa</i>	X	X	
	Caricaceae	<i>Vasconcellea pubescens</i>	X	X	
Sapindales	Rutaceae	<i>Ruta graveolens</i>	X	X	
Rosales	Rosaceae	<i>Pyrus communis</i>	X	X	
Zygophyllales	Porlieria	<i>Porlieria chilensis</i>	X	X	
Solanales	Solanaceae	<i>Capsicum annuum</i>	X	X	
	Solanaceae	<i>Solanum lycopersicum</i>	X	X	X
Asterales	Asteraceae	<i>Lactuca sativa</i>	X	X	X
Caryophyllales	Polygonaceae	<i>Rumex acetosa</i>	X	X	X
	Polygonaceae	<i>Rheum rhaponticum</i>	X	X	
	Polygonaceae	<i>Fagopyrum esculentum</i>	X	X	
	Phytolaccaceae	<i>Phytolacca dioica</i>	X	X	
	Amaranthaceae	<i>Chenopodium quinoa</i>	X	X	
	Amaranthaceae	<i>Spinacia oleracea</i>	X	X	
	Amaranthaceae	<i>Beta vulgaris</i>	X	X	
Canellales	Winteraceae	<i>Drimys winteri</i>	X	X	X

^aLetter X indicates detectable iron by Perls/DAB staining for each cell layer.