

## Supplementary Material

### A survey of the natural variation in biomechanical and cell wall properties in inflorescence stems reveals new insights into the utility of *Arabidopsis* as a wood model

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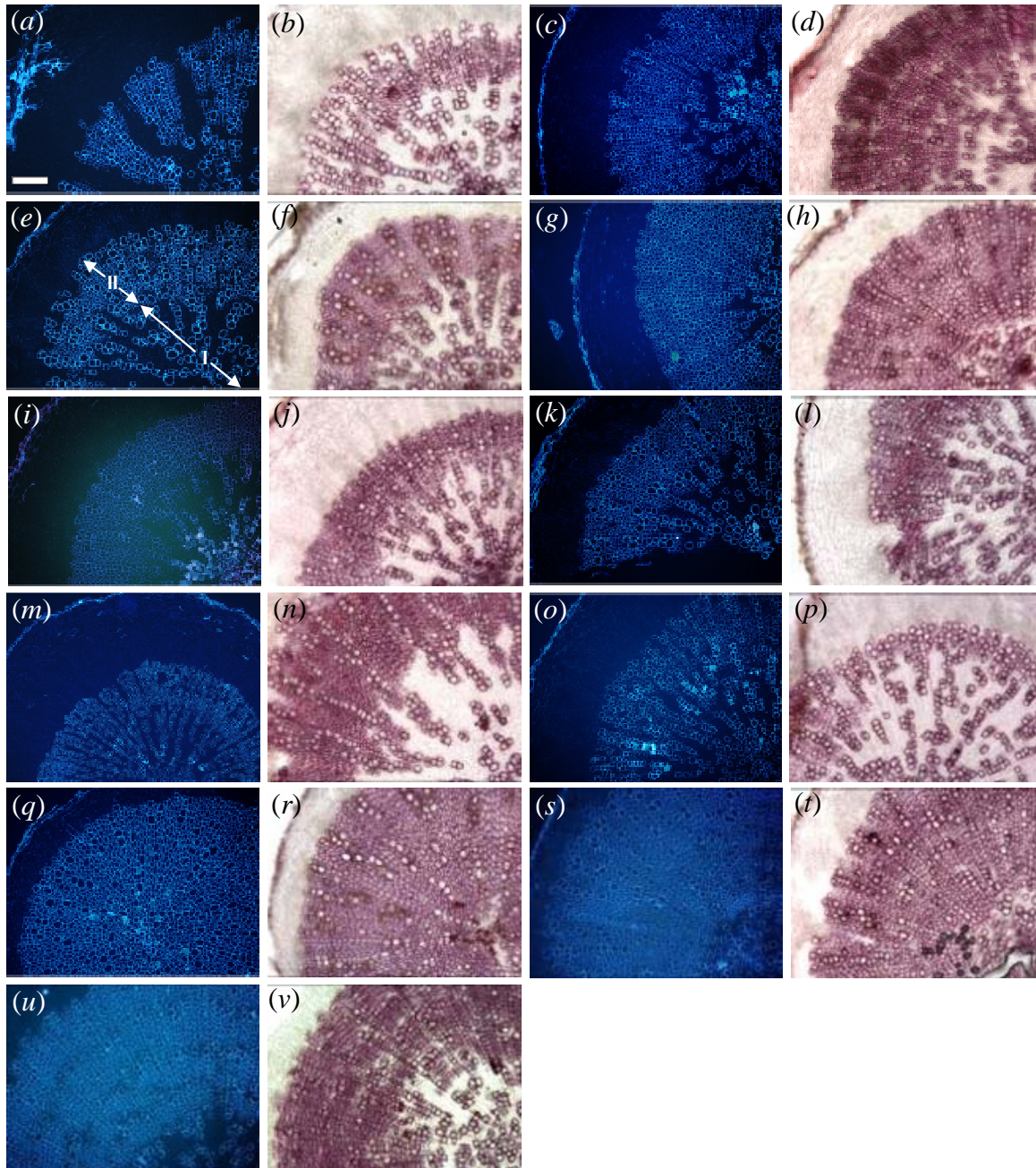
#### Table S1. Average flowering time of *Arabidopsis* accessions in this survey

Floral initiation was measured as days to flowering (Boyes *et al.* 2001 *Plant Cell* **13**: 1499), leaf number and rosette diameter. Tul did not flower under the SD conditions

Accession	Days to flowering		Number of True Leaves		Rosette Diameter (mm)	
	<i>SD</i>	<i>LD</i>	<i>SD</i>	<i>LD</i>	<i>SD</i>	<i>LD</i>
Be-0	53	26	20	7	140	89
C24	58	29	19	12	119	83
Col-0	63	20	20	6	168	77
Cvi-0	53	40	13	14	109	156
Est-0	63	20	17	6	140	89
Ler-0	56	21	16	6	134	59
Nd-0	60	23	18	7	143	69
No-0	65	23	19	6	141	78
RLD	51	16	14	6	128	54
RLD-1	50	16	16	6	148	47
Tul	–	63	–	23	–	176
Ws-2	56	19	19	6	147	80

**Table S2. Summary statistics**

	<i>Dia</i>	<i>Mod</i>	<i>Ten</i>	<i>MFA</i>	<i>Lignin</i>	<i>Glycan</i>	<i>Arabinose</i>	<i>Fucose</i>	<i>Galactose</i>	<i>Glucose</i>	<i>Mannose</i>	<i>Rhamnose</i>	<i>Xylose</i>	<i>DaysTF</i>	<i>NumTrueL</i>	<i>RosDia</i>
Count	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Average	0.922609	2309.7	19.5652	22.6	21.1522	58.6783	0.702609	0.150435	1.54174	39.4565	2.18304	0.422609	14.1957	41.0435	12.8696	111.913
Standard deviation	0.317465	578.37	7.61474	5.01008	1.58426	3.56982	0.215643	0.0336396	0.205087	2.83113	0.237744	0.0618809	1.06876	18.6242	5.96432	38.9684
Coeff. of variation	34.4095%	25.041%	38.9198%	22.1685%	7.48982%	6.08371%	30.6918%	22.3616%	13.3023%	7.17532%	10.8905%	14.6426%	7.5288%	45.3768%	46.3444%	34.8203%
Minimum	0.47	1092.0	8.0	14.5	17.8	51.5	0.37	0.07	1.0	34.2	1.7	0.28	12.2	16.0	6.0	47.0
Maximum	1.58	3480.0	32.0	31.4	23.9	63.1	1.42	0.23	1.97	43.2	2.62	0.57	16.8	65.0	23.0	176.0
Range	1.11	2388.0	24.0	16.9	6.1	11.6	1.05	0.16	0.97	9.0	0.92	0.29	4.6	49.0	17.0	129.0
Std. skewness	0.509985	-0.360953	0.264858	0.100626	-0.890994	-0.757474	3.40435	0.472476	-0.529566	-0.392092	0.173683	-0.00234675	0.87976	-0.2521	0.0235623	-0.209942
Std. kurtosis	-0.803389	-0.0403096	-1.38932	-1.24098	-0.0158412	-1.10827	4.69522	1.38264	1.30077	-1.26704	-0.336007	1.01412	0.344027	-1.80153	-1.57819	-1.29747



**Fig. S1.** Comparison of secondary growth in short-day-grown rosette stem transverse sections. Rosette short stem sections were viewed and photographed using autofluorescence ((a), (c), (e), (g), (i), (k), (m), (o), (q), (s), (u)), or stained with Wiesner reagent ((b), (d), (f), (h), (j), (l), (n), (p), (r), (t), (v)). Accessions: Be-0: (a) and (b); C24: (c) and (d); Col-0: (e) and (f); Cvi-0: (g) and (h); Est-1: (i) and (j); Ler-0: (k) and (l); Nd-0: (m) and (n); No-0: (o) and (p); RLD-0: (q) and (r); RLD-1: (s) and (t); Ws: (u) and (v). An example of phase I (I) and phase II (II) secondary xylem development with secondary thickening of the fibre cell walls in phase II as described by Chaffey *et al.* (2002) is indicated in the Col-0 accession in (e). Scale bar represents 100  $\mu$ M.