

Additional file 5. Changes in polysaccharide composition and cellulose in *AnAXE1* expressing lines (4, 17) compared to the wild type (WT).

Line	Soluble polysaccharide composition (mol %)								Updegraff cellulose (% wood d.w)	Relative crystallinity (% WT)	
	Ara	Rha	Xyl	Man	MeGlcA	Gal	GalA	Glc		NMR cellulose	XRD sample
WT	1.37 ± 0.05	1.39 ± 0.02	65.5 ± 0.7**	5.04 ± 0.64	3.11 ± 0.06	1.53 ± 0.10*	4.98 ± 0.19	17.1 ± 0.6**	44.6 ± 0.7	100 ± 0****	100 ± 2*
4	1.46 ± 0.03	1.30 ± 0.07	62.3 ± 1.4**	5.66 ± 0.93	2.95 ± 0.14	1.74 ± 0.09	4.68 ± 0.15	19.9 ± 1.3	44.0 ± 0.7	108 ± 2****	102 ± 3
17	1.46 ± 0.06	1.48 ± 0.01	62.9 ± 0.8*	5.48 ± 0.59	3.12 ± 0.08	1.88 ± 0.11	5.25 ± 0.0	18.5 ± 0.2	47.9 ± 2.1	105 ± 4**	106 ± 3*

Mean ± SE, $n = (3-5)$ biological replicates except for lignin S/G ratio, where $n = (8-18)$ biological replicates were analyzed. Asterisks next to individual lines correspond to means significantly different from wild type (WT) according to the post ANOVA Student's t -test. Asterisks next to WT values in bold type denote significance of contrast between WT and all lines. (* - $P \leq 0.1$, ** - $P \leq 0.5$ *, *** - $P \leq 0.01$). NMR - nuclear magnetic resonance; XRD = X-ray diffraction.