

**Table S2. Near infrared reflectance spectroscopy calibration statistics for maize stover cell wall composition traits.**

Trait	Unit	$N^a$	Mean	Min.	Max.	$R^2$	SEC	SECV
CW	$\text{g Kg}^{-1} \text{DM}$	710	61.37	40.73	82.00	0.93	1.81	1.84
ADF <sup>b</sup>	$\text{g Kg}^{-1} \text{DM}$	357	36.16	20.12	52.19	0.94	1.34	1.39
Lig	$\text{g Kg}^{-1} \text{DM}$	337	3.96	0.58	7.35	0.59	0.73	0.76
pCa I	$\text{g Kg}^{-1} \text{CW}$	1563	15.60	1.45	21.72	0.87	1.23	1.26
pCa II	$\text{g Kg}^{-1} \text{CW}$	1494	11.54	2.24	20.83	0.88	1.09	1.13
FA I	$\text{g Kg}^{-1} \text{CW}$	1561	5.55	3.01	8.08	0.64	0.51	0.52
FA II	$\text{g Kg}^{-1} \text{CW}$	1499	6.90	4.21	9.60	0.66	0.53	0.54
Di-FA I	$\text{g Kg}^{-1} \text{CW}$	516	0.15	0.03	0.27	0.66	0.02	0.03
Di-FA II	$\text{g Kg}^{-1} \text{CW}$	514	0.33	0.11	0.54	0.61	0.04	0.05
H	$\text{g Kg}^{-1} \text{CW}$	1048	1.43	0.00	3.10	0.74	0.28	0.30
S	$\text{g Kg}^{-1} \text{CW}$	1054	7.22	0.41	14.03	0.79	1.03	1.09
G	$\text{g Kg}^{-1} \text{CW}$	1051	6.38	1.30	11.46	0.60	1.07	1.11

<sup>a</sup>  $N$  is the number of samples analyzed for development of calibration equation;  $R^2$  is the coefficient of determination between laboratory analysis and NIRS prediction, SEC is the standard error of calibration and SECV is the standard error of cross-validation predictions.

<sup>b</sup> Acid detergent fiber