

**Table S1.** The results of the REP<sub>value</sub> model for predicting the LAI.

Ratio	LAI model	R <sup>2</sup>	RMSE
1:1	$y=0.255e^{352.9x}$	0.82**	0.54
2:1	$y=0.272e^{346.8x}$	0.85**	0.49
3:1	$y=0.348e^{307.2x}$	0.83**	0.48
4:1	$y=0.361e^{304x}$	0.86**	0.48
9:1	$y=0.349e^{308.4x}$	0.86**	0.45

Note: Ratio represents the number of ratio for calibration and validation data sets.

**Table S2.** The results of the MSR model for predicting the LNA.

Note: Ratio represents the number of ratio for calibration and validation data sets.

Ratio	LNA model	R <sup>2</sup>	RMSE(kg/ha)
1:1	$y=3.488e^{0.64x}$	0.85**	10.71
2:1	$y=4.67e^{0.58x}$	0.90**	8.30
3:1	$y=4.32e^{0.59x}$	0.86**	10.46
4:1	$y=4.36e^{0.59x}$	0.87**	10.07
9:1	$y=4.37e^{0.59x}$	0.87**	10.65

