

Table S1 Soil moisture content and soil specific conductance in seedling experiment (2021 data)

Item	Treatment	1 d	4 d	7 d	10 d	13 d
Soil moisture content (%)	CK	35.07±0.07a	26.13±0.05a	26.70±0.04cd	28.47±0.04abc	31.30±0.02a
	50%CRU	31.07±0.03ab	22.17±0.02ab	33.83±0.01a	25.20±0.02abc	23.80±0.01b
	50%CRU+S	31.97±0.02ab	21.77±0.04ab	33.13±0.04ab	25.20±0.02abc	34.63±0.03a
	50%CRU+ BT	28.20±0.05ab	23.57±0.05ab	32.77±0.03ab	26.90±0.03abc	33.07±0.04a
	50%CRU+BT+S	29.70±0.05ab	22.87±0.02ab	34.27±0.01a	31.83±0.03a	31.13±0.04a
Soil specific conductance (mS m <sup>-1</sup> )	CK	159.33±32.62b	147.33±1.53d	118.33±10.02b	111.00±6.56c	96.67±1.53d
	50%CRU	199.667±19.43ab	175.00±14.00bcd	142.33±17.79b	210.33±11.85b	160.33±10.02c
	50%CRU+S	180.33±7.37ab	165.33±22.55bcd	132.00±17.35b	210.33±11.85b	151.67±7.64c
	50%CRU+ BT	178.33±34.12ab	197.33±4.04b	150.67±19.86b	211.67±23.01b	153.00±18.33c
	50%CRU+BT+S	173.00±7.00ab	147.33±1.53d	144.33±12.50b	217.67±16.50b	149.37±23.12c

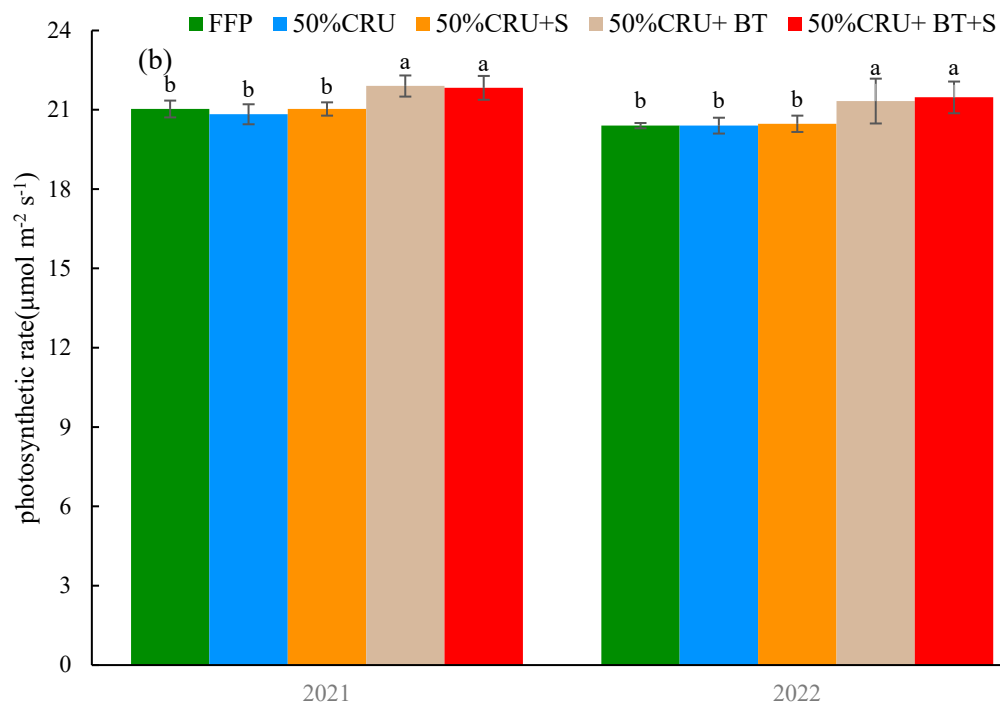
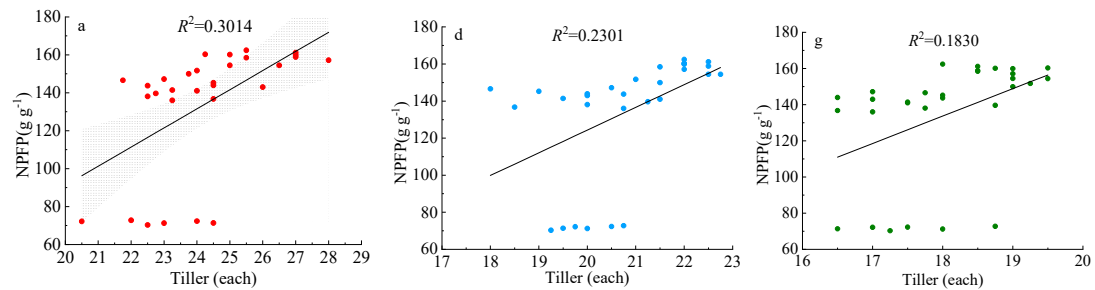
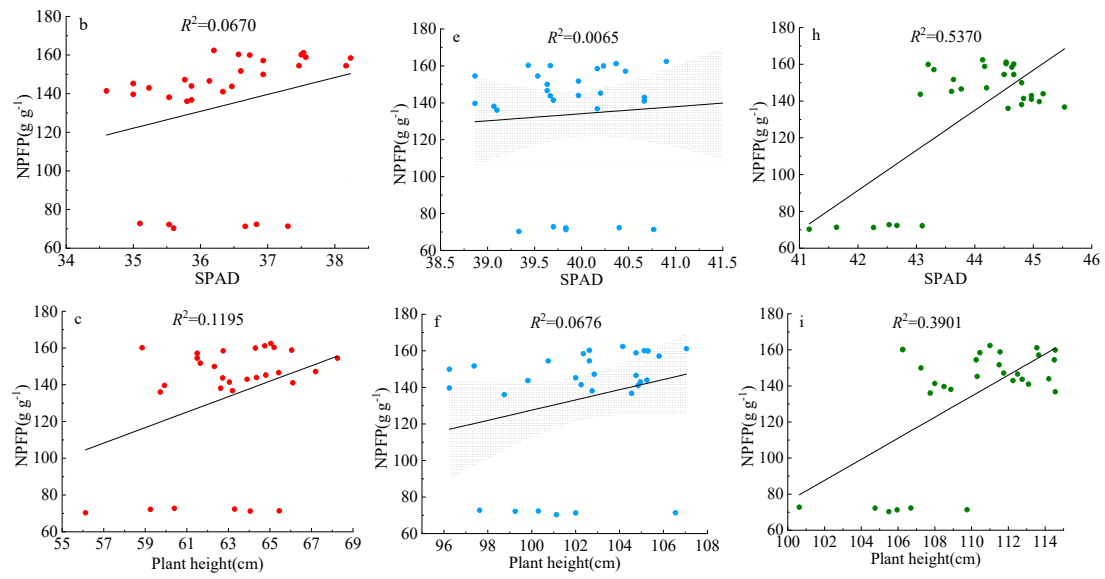


Fig. S1 photosynthetic rate at booting stage in 2021 and 2022.





**Fig. S2** Relationship between tillering number, leaf SPAD and plant height and nitrogen partial productivity (a, b and c were tillering stage, d, e and f were booting stage, g, h and i were full heading stage)