

Supplementary Table S4. Seed set ratio of control and early-morning flowering (EMF) varieties under different temperature levels during flowering stage in wheat and rice.

Crops	Variety	Temperature (°C)	Seed set (%)	Reference
Wheat	Control	24.0	95.8	Ref. 1
		34.0	94.2	
	EMF	24.0	91.5	
		34.0	81.7	
Rice	Control	35.0	86.1	Ref. 2
		35.5	90.8	
		36.4	85.0	
		36.6	83.4	
		36.9	76.2	
		37.1	75.0	
		37.9	65.6	
	EMF	35.0	91.3	
		35.5	91.6	
		36.5	94.1	
		36.9	92.9	
		37.6	85.8	
		37.9	88.2	
		38.3	83.0	

References

1. Aiqing, S., Somayanda, I., Sebastian, S. V., Singh, K., Gill, K., Prasad, P. V. V., Jagadish, S. K. Heat stress during flowering affects time of day of flowering, seed set, and grain quality in spring wheat. *Crop Sci.* 58, 380-392 (2018). doi: 10.2135/cropsci2017.04.0221
2. Ishimaru, T., et al. An early-morning flowering trait in rice can enhance grain yield under heat stress field conditions at flowering stage. *Field Crop. Res.* **277**, 108400 (2022). doi: 10.1016/j.fcr.2021.108400