Table S1. Effects of exogenous Spd and CHA on the rice seed size at different developmental stages under high-temperature stress.

Treatment	Days after pollination	Length/mm	Width/mm
NT	11	8.34±0.100a	2.40±0.044a
HT		8.33±0.108a	2.53±0.095a
HT+SPD		8.31±0.309a	2.49±0.041a
HT+CHA		8.39±0.110a	2.48±0.027a
HT+CHA+Spd		8.39±0.110a	2.48±0.027a
NT	16	8.34±0.134a	2.42±0.043a
HT		8.37±0.056a	2.46±0.038a
HT+SPD		8.39±0.081a	2.52±0.057a
HT+CHA		8.39±0.058a	2.48±0.050a
HT+CHA+Spd		8.39±0.056a	2.43±0.038a
NT	28	8.34±0.100a	2.20±0.051a
HT		8.37±0.087a	2.18±0.058b
HT+SPD		8.39±0.080a	2.29±0.046a
HT+CHA		8.39±0.042b	2.08±0.053b
HT+CHA+Spd		8.39±0.141a	2.08±0.043a
NT	35	8.34±0.131a	2.22±0.052a
HT		8.37±0.072a	2.10±0.034ab
HT+SPD		8.39±0.131a	2.24±0.055a
HT+CHA		8.39±0.120b	2.02±0.046ab
HT+CHA+Spd		8.39±0.137a	2.07±0.061b

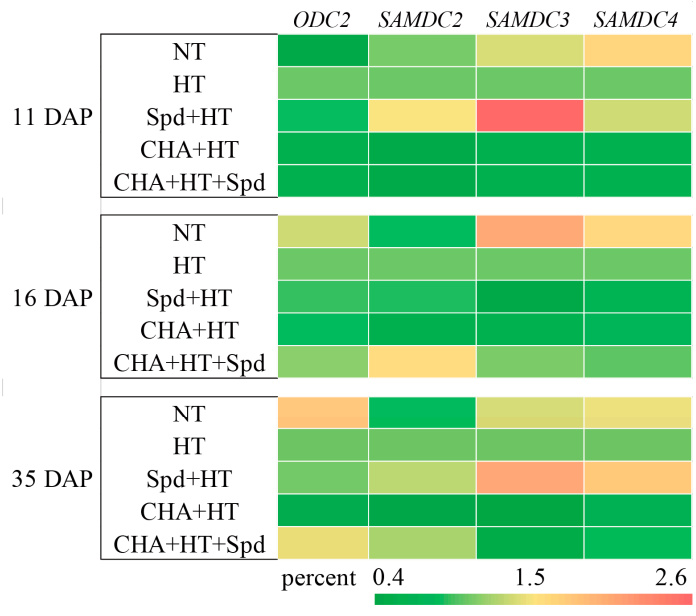

Figure S1. Effects of exogenous Spd and CHA on polyamine synthesis-related genes (putative *ODC2*, *SAMDC2*, *SAMDC3*, *SAMDC4*) expressions of rice seeds during development under high-temperature (40°C, 5 days). The expression level of HT was regarded as 1.0.

NT: Normal temperature control; HT: High temperature control; Spd+HT: 1.5mM exogenous Spd treatment + high temperature; CHA+HT: 20mM exogenous CHA treatment + high temperature; CHA+HT+Spd: 20mM Exogenous CHA treatment + high temperature + exogenous 1.5mM Spd.