

**Supplementary Equation S1.** Method of  $\Delta\%$  5mC calculation.

X = % 5mC at 95% germination calculated by p.dose from GLM model (control)

Y = % 5mC at one of the arbitrary chosen percentage of germination calculated by p.dose from GLM model.

$$Z = Y/X \times 100\% \quad (S1)$$

$$\Delta = 100\% - z \quad (S2)$$

Calculated  $\Delta$  was plotted on x axis. Germination (%) was plotted on y axis.

**Supplementary Table S1.** AIC (Akaike information criterion) and coefficients of constructed GLM models for all seeds, non-desiccated seeds at the MC range 12.5–14.5% and desiccated seeds at the MC range 7.6–7.8%.

Models	Null Deviance on Degrees of Freedom	AIC	Coefficients of GLM Models			
			Estimate	Std. Error	z Value	Pr(> z )
All seeds	100.375 on 119	73.605	1.8068	0.3193	5.658	1.53e-08
Non-desiccated	60.186 on 59	41.184	2.4225	0.6083	3.982	6.82e-05
Desiccated	35.396 on 59	34.459	1.5170	0.4155	3.651	0.000261

**Supplementary Table S2.** Calculated relative DNA methylation level changes (% $\Delta$ ) based on GLM models.

Assumed Germination Level	All Seeds	Non-desiccated Seeds	Desiccated Seeds
95%	0%	0%	0%
90%	10.004%	8.546%	10.071%
80%*	14.792%	12.880%	15.565%
50%	22.976%	18.891%	24.967%
25%	29.462%	24.070%	32.415%
10%	35.948%	29.237%	39.873%
5%	40.359%	32.761%	44.934%

**Supplementary Table S3.** The relationship between germination (%) and ( $\Delta\%$ ) 5mC. Slopes indicate the percentage of germination change when relative ( $\Delta\%$ ) 5mC level changes by 1%.

	All seeds	Non-desiccated	Desiccated
Slope of asymptomatic changes <sup>1</sup>	-0.448 (R <sup>2</sup> = 0.9266)	-0.521 (R <sup>2</sup> = 0.9214)	-0.496 (R <sup>2</sup> = 0.8663)
Slope of rapid loss of germination <sup>2</sup>	-3.784 (R <sup>2</sup> = 0.9994)	-4.885 (R <sup>2</sup> = 0.9998)	-3.295 (R <sup>2</sup> = 0.9994)

<sup>1</sup> Assessed between 95% and 90% of germination, <sup>2</sup> Assessed between 80 and 25% of germination.