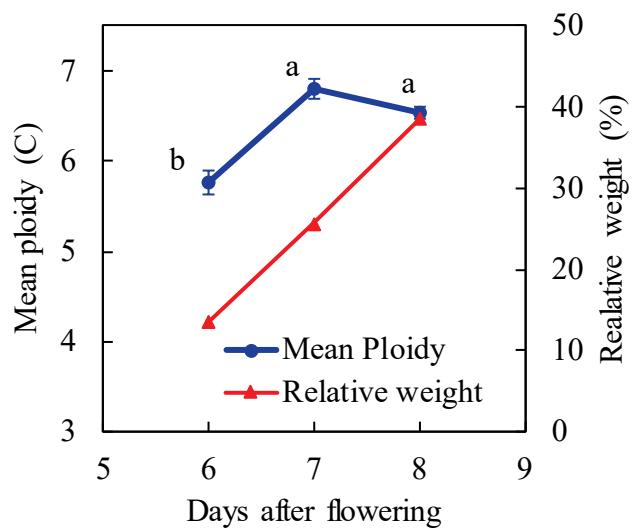


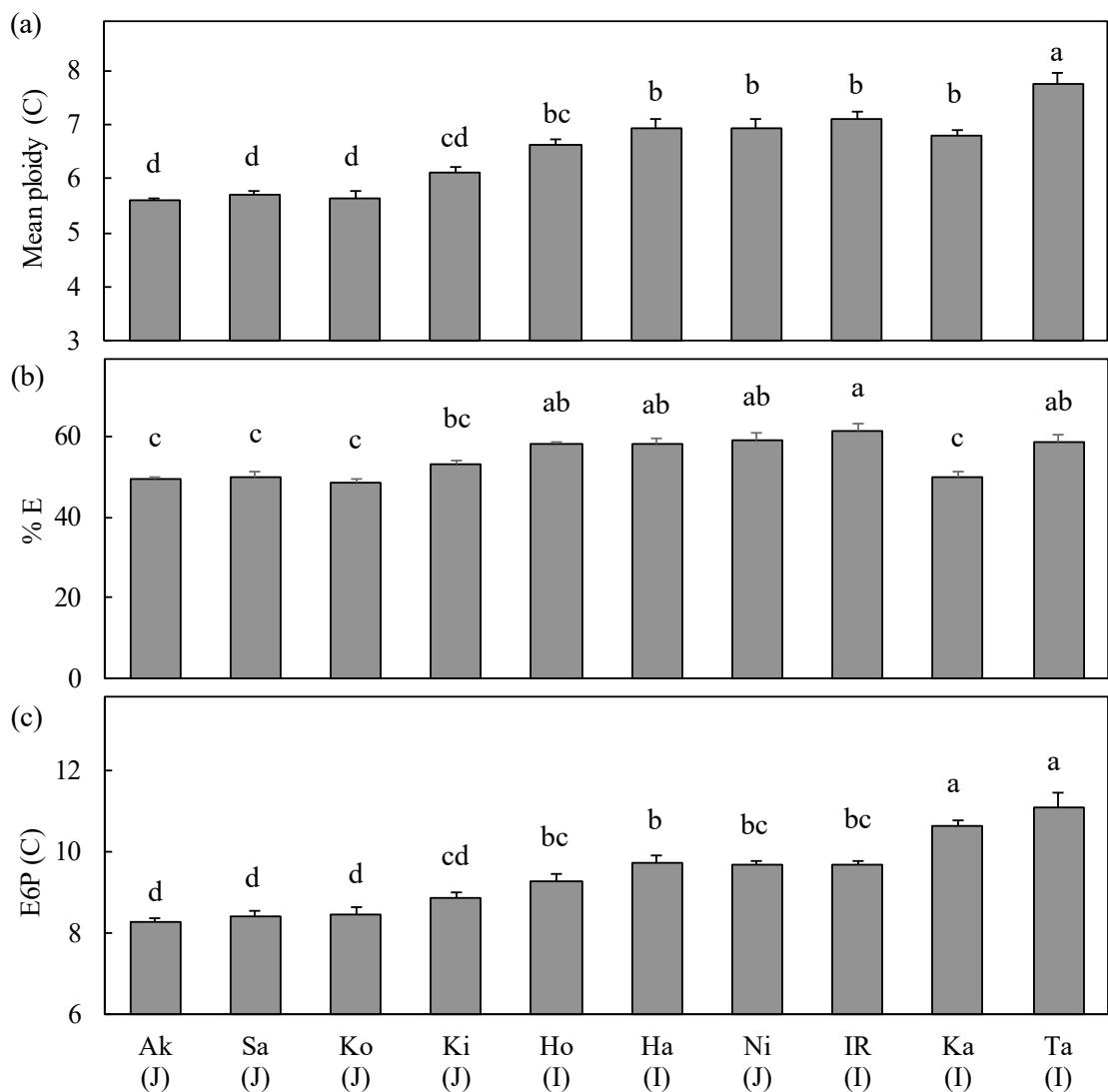
Supplemental materials

Supplement 1. Developmental stage of the caryopsis used in the comparison of endoreduplication among 10 rice cultivars in 2014 and 2015.

Cultivars	Developmental stage (2014)		Developmental stage (2015)	
	Days after pollination	Relative weight (%)	Days after pollination	Relative weight (%)
Ak (J)	8	25.6	8	24.6
Ki (J)	8	26.5	8	23.3
Ko (J)	8	27.0	8	25.6
Ni (J)	8	27.0	9	25.6
Sa (J)	8	29.4	8	24.0
Ha (I)	7	22.2	8	28.2
Ho (I)	8	26.2	10	21.9
IR (I)	7	26.6	9	23.6
Ka (I)	7	25.7	7	24.1
Ta (I)	8	26.8	8	25.3



Supplement 2. Mean ploidy and relative dry weight of the caryopses in *indica* cultivar ‘Kasalath’. Data represent the mean \pm SE of four replicates. Data points with the same letter are not significantly different according to the Tukey–Kramer multiple comparison test ($P < 0.05$).

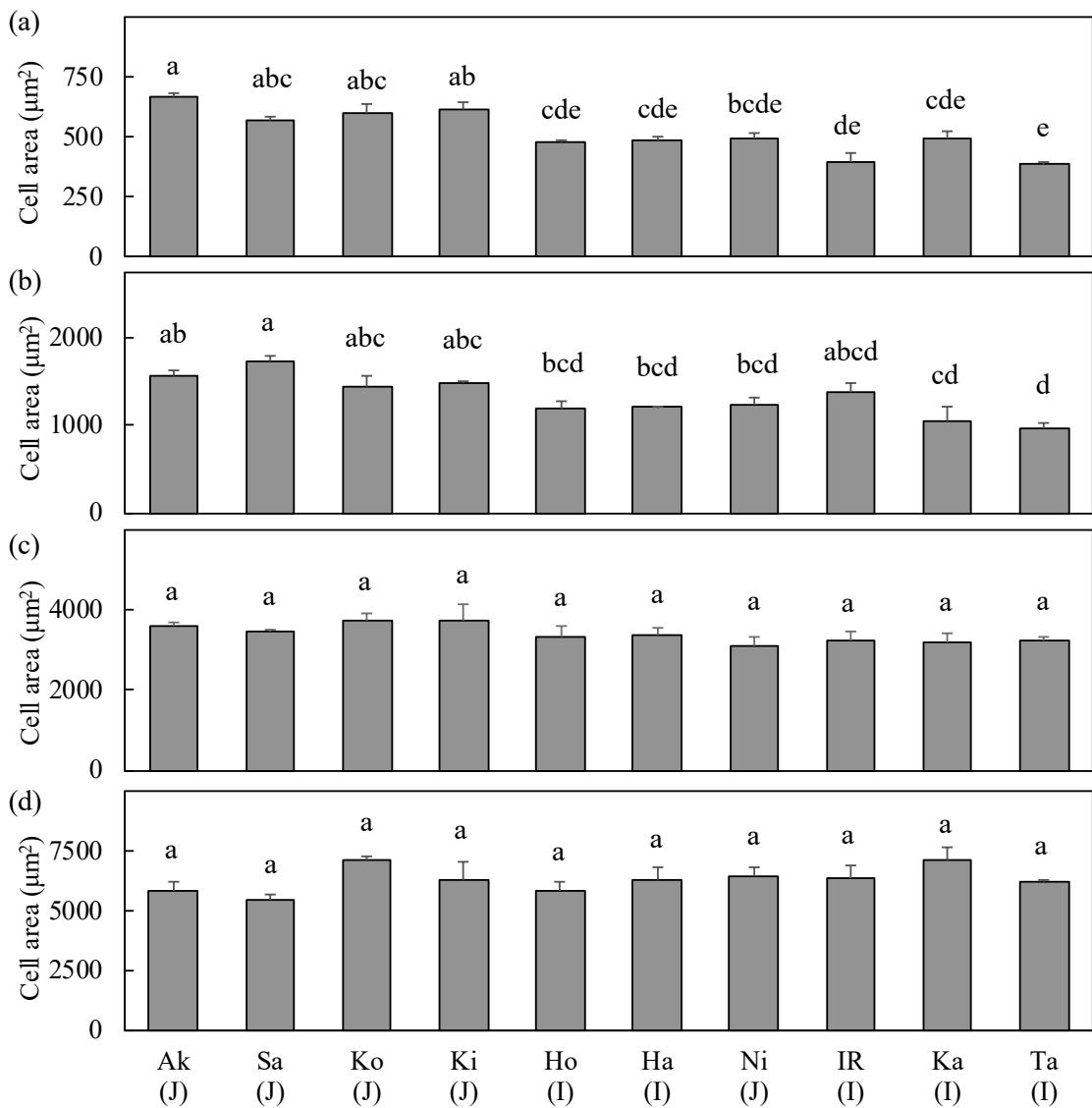


Supplement 3. Parameters of endoreduplication progression in the developing endosperm of rice cultivars in 2014. (a) Mean ploidy. (b) %E. (c) E6P. Data represent the mean \pm SE of four replicates. Bars with the same letter are not significantly different according to the Tukey–Kramer multiple comparison test ($P < 0.05$). Cultivars are arranged in the order of mean ploidy in 2015.

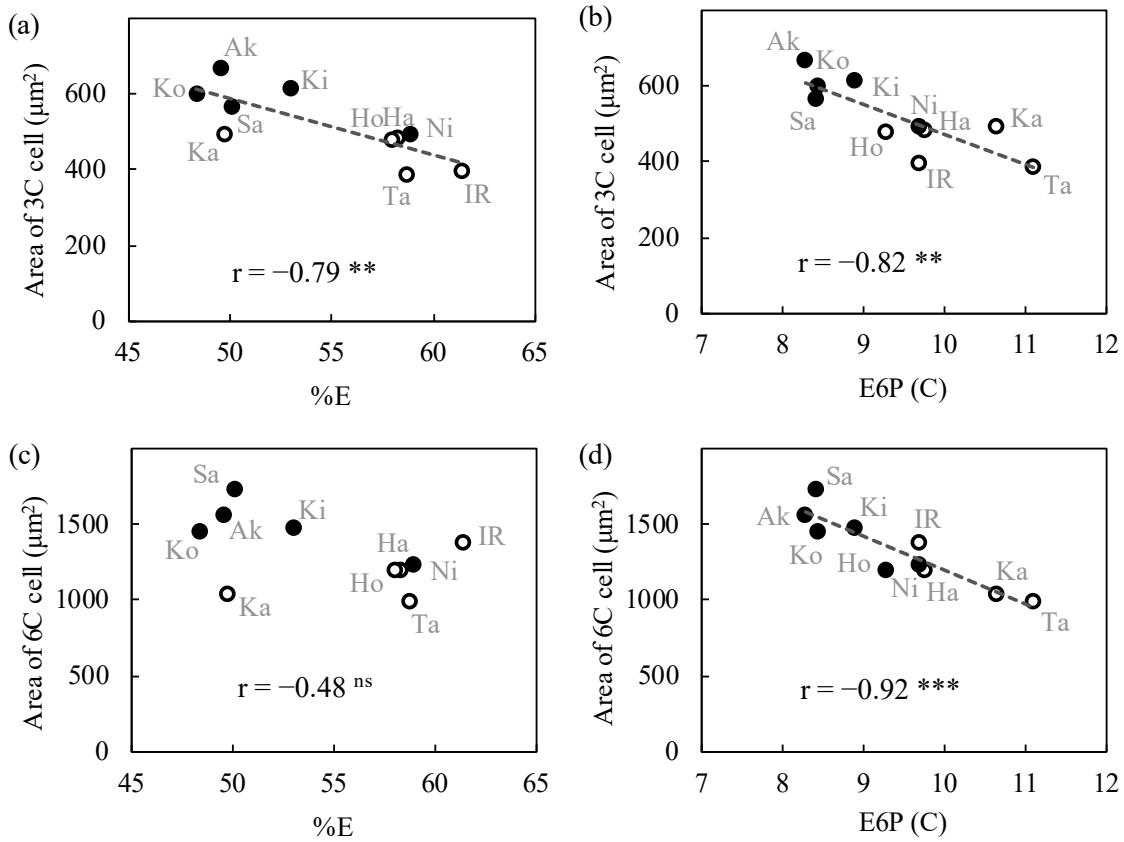
Supplement 4. Two-way ANOVA of endoreduplication parameters in 10 rice cultivars in 2014 and 2015.

Parameters	Cultivar (C)	Year (Y)	C*Y
Mean ploidy	***	*	ns
%E	***	ns	ns
E6P	***	*	ns

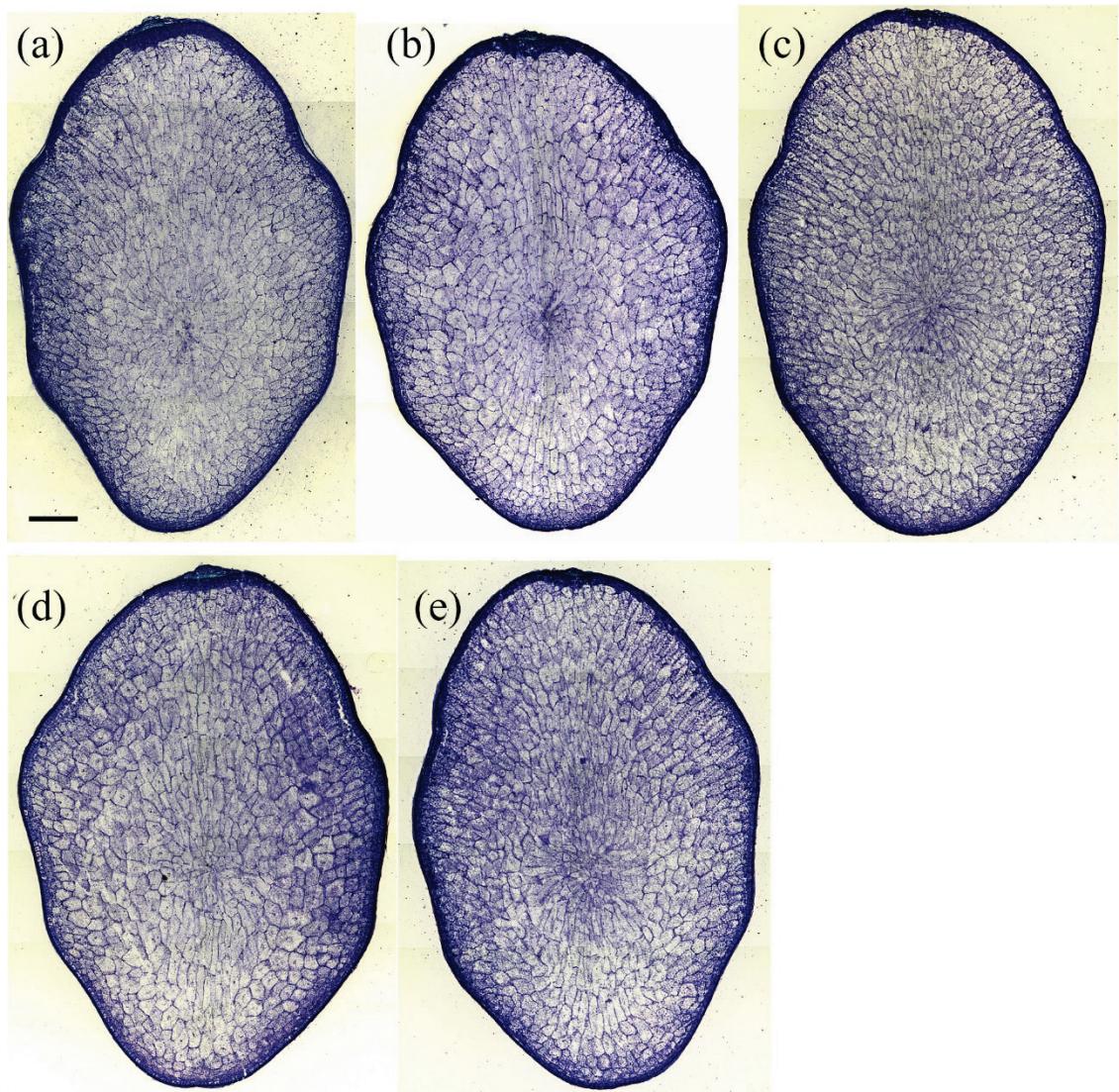
* significant at 0.05 probability level; *** significant at 0.001 probability level; ns not significant at 0.05 probability level



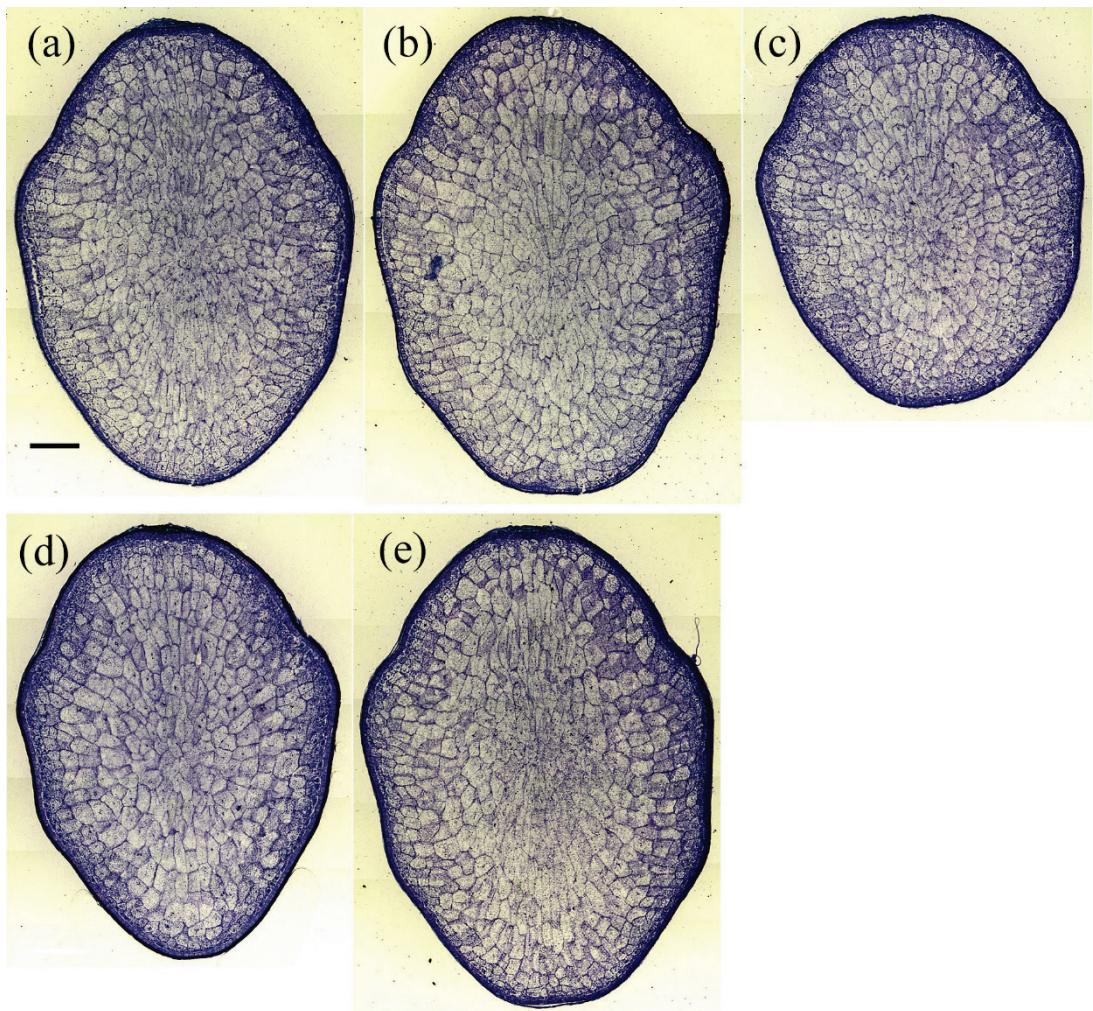
Supplement 5. Transverse sectional area of cells in the same ploidy class of rice cultivars in 2014. (a) 3C. (b) 6C. (c) 12C. (d) 24C. Data represent the mean \pm SE of four replicates. Bars with the same letter are not significantly different according to the Tukey–Kramer multiple comparison test ($P < 0.05$). Cultivars are arranged in the order of mean ploidy in 2015.



Supplement 6. Correlation between endoreduplication and transverse sectional area of cells within the 3C and 6C ploidy classes in 2014. (a) %E and area of 3C cells. (b) E6P and area of 3C cells. (c) %E and area of 6C cells. (d) E6P and area of 6C cells. Open and closed symbols represent data from *indica* and *japonica* cultivars, respectively. ** significant at 0.01 probability level; *** significant at 0.001 probability level; ns not significant at 0.05 probability level.



Supplement 7. Stereomicroscopic images of transverse sections of mature caryopses in *japonica* rice cultivars. The section was stained with toluidine blue. (a) Ak. (b) Ki. (c) Ko. (d) Ni. (e) Sa. The scale bar represents 300 μm .



Supplement 8. Stereomicroscopic images of transverse sections of mature caryopses in *indica* rice cultivars. The section was stained with toluidine blue. (a) Ha. (b) Ho. (c) IR. (d) Ka. (e) Ta. The scale bar represents 300 μm .