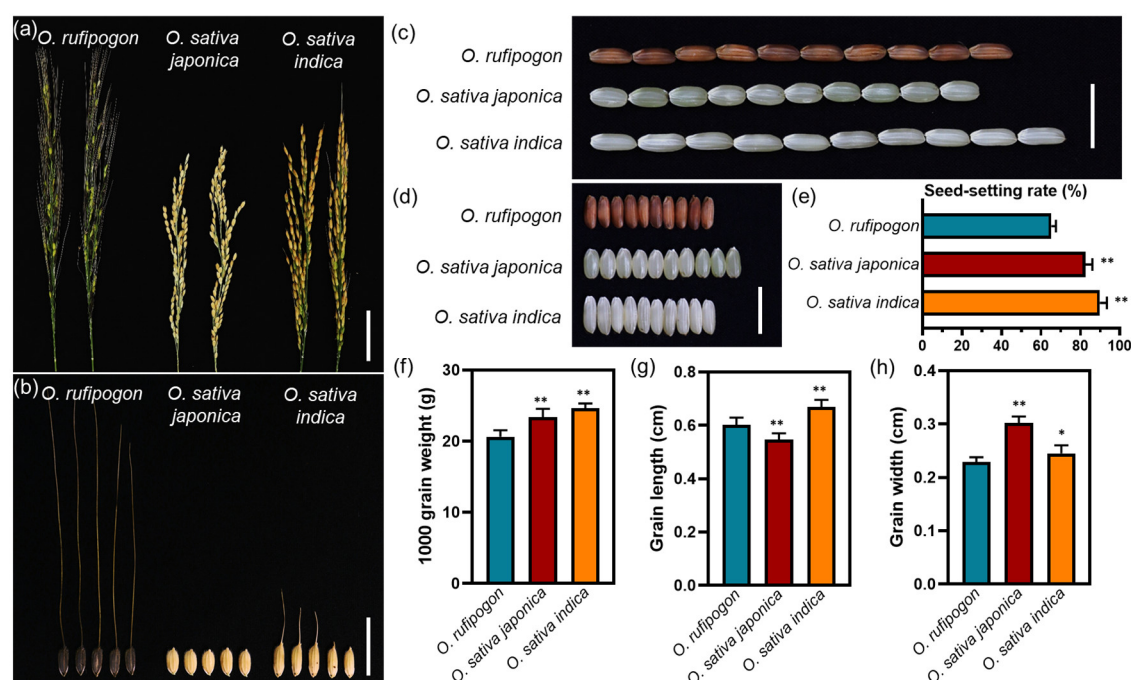
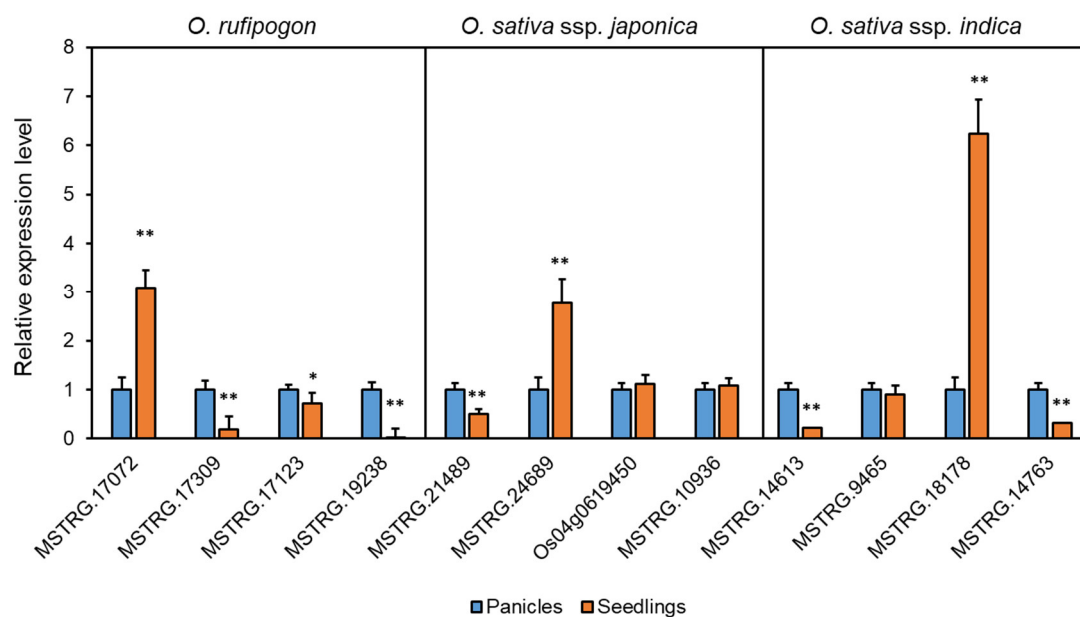


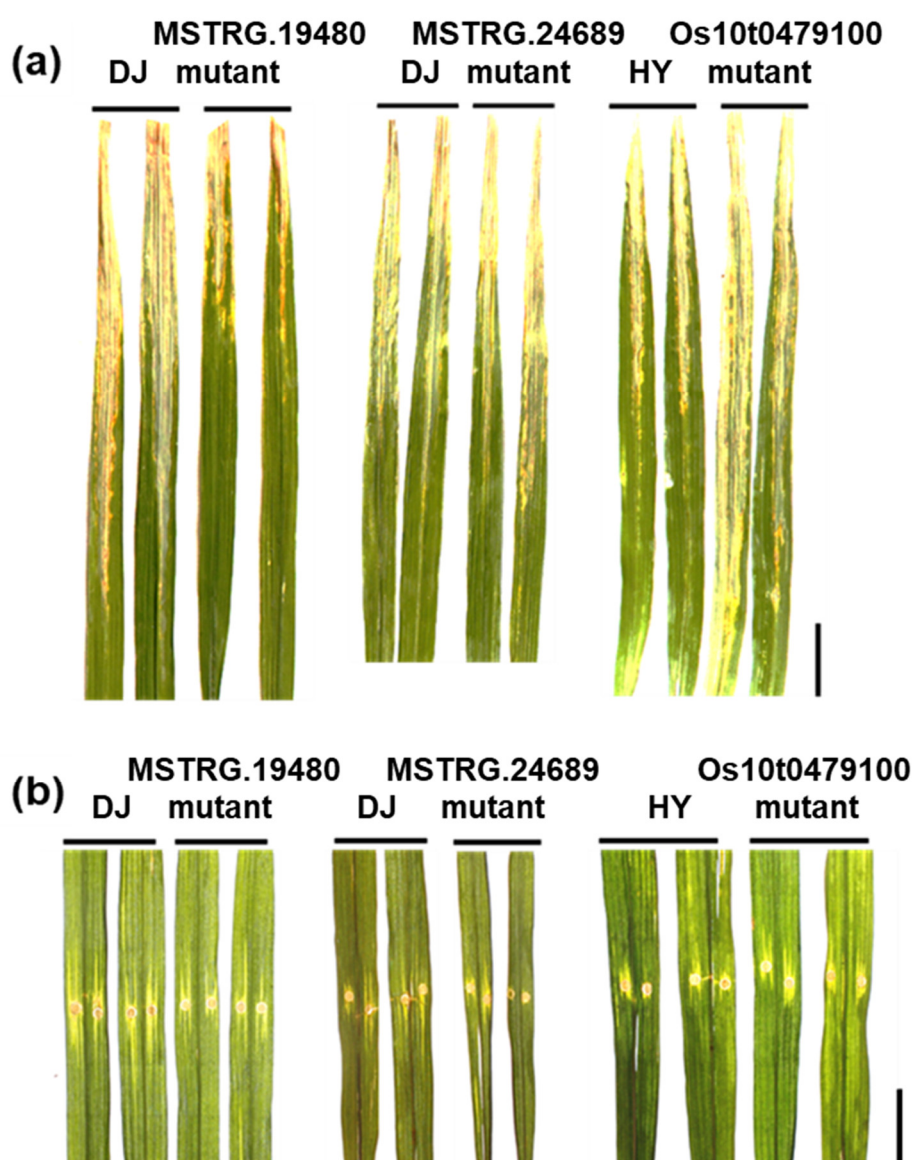
Supplementary figures and legends



Supplementary Fig. S1. Phenotypic comparisons between wild rice and two cultivated rice varieties. The common wild rice (*Oryza rufipogon*, collected from Hainan province), Nipponbare (*O. sativa* ssp. *japonica*) and 93-11 (*O. sativa* ssp. *indica*) was used in this study. **(a)** Panicle architecture. The scale bar is 5 cm. **(b)** Grain morphology. The scale bar is 2 cm. **(c-d)** Grain length (c) and width (d). The scale bar is 1 cm. **(e-h)** Data analysis of seed-setting rate (e), 1000-grain weight (f), grain length (g) and grain width (h). Data are presented as means \pm SD. Asterisks indicate statistically significant differences compared with the *Oryza rufipogon*, as determined using Student's *t* test (* $P < 0.05$; ** $P < 0.01$; $n = 30$).



Supplementary Fig. S2. Validation of lncRNA expression profiles in RNA-seq by quantitative real-time PCR. Rice gene *Actin 2* was used as an endogenous control. Expression levels of panicles were set to 1. The data are expressed as the mean \pm SD of three replicates. Asterisks indicate statistically significant differences compared with wild rice by Student's *t* test (* $p < 0.05$, ** $p < 0.01$).



Supplementary Fig. S3. Comparison of resistance to *Xoo* (a) and *Xoc* (b) between wild type and T-DNA insertion mutants of three conserved lncRNAs in rice domestication. Scale bar =5 cm.

OR-MSTRG.27043.1AGAAAAGATTCCCCTCCTCTGCTTCTCGTGTCTCTTCTTCCCTCCCGTCTCTACTCCTATTCTATCGGATCTCCGGC	77
OJ-MSTRG.19480.1	AAAAAGAAAAGATTCCCCTCCTCTGCTTCTCGTGTCTCTTCTTCCCTCCCGTCTCTACTCCTATTCTATCGGATCTCCGGC	82
OR-MSTRG.27043.1	GAGCAGCGCCGCGCGCATCGGGGTGTAACATGGCCTTGTGCGCGGAGCCCATGTTACGGCGGCGCGCGCGCGGAGCGC	159
OJ-MSTRG.19480.1	GAGCAGCGCCGCGCGCATCGGGGTGTAACATGGCCTTGTGCGCGGAGCCCATGTTACGGCGGCGCGCGCGCGGAGCGC	164
OR-MSTRG.27043.1	GAGGAAGCCCTAGACGCGCGGATGTGTGGGGTTTGGGTGAGCGCAATTACCATGGGTTTTTTTTCTCTTTTTCTTGGC	241
OJ-MSTRG.19480.1	GAGGAAGCCCTAGACGCGCGGATGTGTGGGGTTTGGGTGAGCGCAATTACCATGGGTTTTTTTTCTCTTTTTCTTGGC	246
OR-MSTRG.27043.1	TTTGTATTATGTAGATTAGCCTTTTCATGCCATTTTCAAATTTGAAACAAATCATAGCGTTGGAATATAAAGTGAATTGTCT	323
OJ-MSTRG.19480.1	TTTGTATTATGTAGATTAGCCTTTTCATGCCATTTTCAAATTTGAAACAAATCATAGCGTTGGAATATAAAGTGAATTGTCT	328
OR-MSTRG.27043.1	GTATTTCTCCATCAACTTAAGCTTTTGGGTTGAACTGATCAGTGCATGTAACCTCAATAGATAGTACTCCTATGTTATTGTGT	405
OJ-MSTRG.19480.1	GTATTTCTCCATCAACTTAAGCTTTTGGGTTGAACTGATCAGTGCATGTAACCTCAATAGATAGTACTCCTATGTTATTGTGT	410
OR-MSTRG.27043.1	GATAAGGAAATGTATAAAGAGGAGGAGATAGAGTTGGTTGAAACAAATATCAAATTTATTTCAACAAGCTACCTTTGTA	487
OJ-MSTRG.19480.1	GATAAGGAAATGTATAAAGAGGAGGAGATAGAGTTGGTTGAAACAAATATCAAATTTATTTCAACAAGCTACCTTTGTA	492
OR-MSTRG.27043.1	TTACACATAAAAACTCTCACACATGTGTATGATTCAACTTTGCATTTATGTATTGAACACTAACTTATATGAGTAAGATC	569
OJ-MSTRG.19480.1	TTACACATAAAAACTCTCACACATGTGTATGATTCAACTTTGCATTTATGTATTGAACACTAACTTATATGAGTAAGATC	574
OR-MSTRG.27043.1	TCGTCAACAACAGCATTTTTACCAGGTGCTCGCCTATTAGTAGAGCTCATCAACCTCAGTAAATAAGTAACAAAATGTAC	651
OJ-MSTRG.19480.1	TCGTCAACAACAGCATTTTTACCAGGTGCTCGCCTATTAGTAGAGCTCATCAACCTCAGTAAATAAGTAACAAAATGTAC	656
OR-MSTRG.27043.1	TTAGTTATAGAAAATACGATGTACTGCTTTCTTAGTAGCAGCAACGGTACTAAAACATCTGGTAGACTAGATCTTGAAGTAA	733
OJ-MSTRG.19480.1	TTAGTTATAGAAAATACGATGTACTGCTTTCTTAGTAGCAGCAACGGTACTAAAACATCTGGTAGACTAGATCTTGAAGTAA	738
OR-MSTRG.27043.1	ATCCGATCGTTTGTTCAACTAACTACATCTCTTCCCATGCAAAAGTATCTCAAGTACGAAATAACATCGCTCGATCATGT	815
OJ-MSTRG.19480.1	ATCCGATCGTTTGTTCAACTAACTACATCTCTTCCCATGCAAAAGTATCTCAAGTACGAAATAACATCGCTCGATCATGT	820
OR-MSTRG.27043.1	GAAAAAATATAGATACCTTGAACCTTCGCATCACAATAGTTAAAAAATCAACCACATTAGTTGTACCTTTGGAATTC	897
OJ-MSTRG.19480.1	GAAAAAATATAGATACCTTGAACCTTCGCATCACAATAGTTAAAAAATCAACCACATTAGTTGTACCTTTGGAATTC	902
OR-MSTRG.27043.1	TCGTGAACACTTTTGCCATCACCTATTGGCATACTATGTATATATTGTTTTACATTTTAAGTATTGATGGTCTCACCAT	979
OJ-MSTRG.19480.1	TCGTGAACACTTTTGCCATCACCTATTGGCATACTATGTATATATTGTTTTACATTTTAAGTATTGATGGTCTCACCAT	984
OR-MSTRG.27043.1	GCGCACCACAGCAAACTAAGCAAACTCATCGATATAAGGTGGAGTCACCTTCATCCTATGATTGAAACGCTACTACTGAT	1061
OJ-MSTRG.19480.1	GCGCACCACAGCAAACTAAGCAAACTCATCGATATAAGGTGGAGTCACCTTCATCCTATGATTGAAACGCTACTACTGAT	1066
OR-MSTRG.27043.1	ACCCTTTAGGATCACAATTGATTATTTACCATCCATATTTATGTCCCGTGGCATATAGATGGCTAGGCCTAGGATATGAT	1143
OJ-MSTRG.19480.1	ACCCTTTAGGATCACAATTGATTATTTACCATCCATATTTATGTCCCGTGGCATATAGATGGCTAGGCCTAGGATATGAT	1148
OR-MSTRG.27043.1	CAATTTCTCGTGGGAGGCAAGAGCCATATTGGTAATATAAGTG.....	1187
OJ-MSTRG.19480.1	CAATTTCTCGTGGGAGGCAAGAGCCATATTGGTAATATAAGTGCCATCGTATTGGGCAAGACATTAAAGTTGGGTTAACTT	1230
OR-MSTRG.27043.1	1187
OJ-MSTRG.19480.1	CAACCTCAACTTAAAAGGAGTCAAGCTCATCTCTCCC	1267

Supplementary Fig. S4. Sequence alignment of MSTRG.19480 in *japonica* rice and MSTRG.27043 in *O. rufipogon*.