Table S1 Primers used in qRT-PCR for validation of DEGs

Gene ID	Primer name	Forward primer	Reverse primer
LOC4332755	OsWRKYTV	CGTCGATGACTTCTTCCCGT	CGTTGTGTAAATCCGTCCGC
LOC107277481	OsWRKYSUSIBA2	AGCTGCAGACGACAACATCA	GGGGTACATGGCACCTTCAA
LOC4347070	OsWRKY62	CTTACTTCCGCTGCGCATTC	TGAAACCTCGTGCGCATAGT
LOC4347069	OsWRKY76	TCCGAATGCTTTTCTGCTGC	CCGATAGAAGCCCGCAATCT
LOC9271617	OsCYP450 87A3	ACCAAGGATCGAGGTGCAAG	ATCGAACAGCAGTGGATCGG
LOC4326660	OsCYP450 72A15	TTGTACCCACCAGCCGTAAC	AATCACACCAGCCGGGTAAG
LOC4349113	OsCYP450 89A2	CATCAAGCTCTGCTCCGAGT	TGGATGGGTTCTTGACCAGC
LOC4324604	OsCYP45072A15-1	TCTTCCCGTGCTGTTCATCC	CACCCGGATCCTTAGATGCC
LOC4328073	OsCAT A	GGACGAGGAGGTGGACTACT	TGCTTGTGTATCGTCGCCTT
LOC4342124	OsCAT B	GTTGTTGCAGTGTGATGCGT	TTCCTCCTGGCCGATCTACA
LOC4346329	OsSOD	CTTGGACGGCCAGGATTCAT	AAGTGCCTGACCTGACGATG
LOC4324556	OsPOD	ACTTCCACGACTGCTTCGTC	GACTTGCGGAGGGTCTTGTT
LOC4340315	OsCalS5	AGACGAGGCTGCTCTTCAAC	CACTTGGTGGACTTTGTGCG
LOC4329889	OsG6PD	CGTGGGAGATCTTCACTCCG	CCAAACGTAGCCATGGGTCT
LOC4349207	OsGSTU6	AACGAAAGGGCCACGAAAGA	CAGCCACACCATTTAGCAGC
LOC4336415	OsPAL	CTCGTCCGCATCAACACTCT	GTCACGTTGGCGTTAAGCAG
AK059694.1	OsUbq	GCAGGCATCTAGAGCTAGGC	AAAAGGTGTCTCCGAAGGGC

Table S2 Three-way ANOVA for significance （*P* value） of the effects of DCY treatment, BPH infestation and infestation time on rice physiological parameters.

	DCY treatment （A）	BPH infestation （B）	Infestation time （C）	A×B	A×C	B×C	A×B×C
MDA[a]	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001
H_2O_2[a]	0.011	<0.001	<0.001	<0.001	0.08	0.001	0.11
CAT[b]	0.001	<0.001	0.003	<0.001	0.332	0.059	0.6
SOD[b]	0.002	<0.001	0.012	<0.001	0.947	0.061	0.966
POD[b]	<0.001	<0.001	<0.001	<0.001	0.334	0.222	0.7
GST[b]	0.085	0.096	0.132	0.054	0.536	0.218	0.444
PPO[b]	<0.001	0.069	0.29	0.003	<0.001	0.105	0.29
PAL[b]	0.075	0.871	0.133	0.075	0.894	0.002	0.894
Soluble sugar[a]	<0.001	<0.001	0.102	<0.001	0.734	<0.001	0.656
Sucrose[a]	<0.001	<0.001	<0.001	0.005	0.059	<0.001	0.125
Glucose[a]	0.054	<0.001	0.012	0.085	0.125	<0.001	0.018
Free amino acid[a]	0.153	0.727	0.423	0.045	0.011	0.818	0.182
Flavonoid[a]	0.001	0.687	0.076	0.008	0.784	0.035	0.763
Callose[a]	<0.001	<0.001	<0.001	0.983	0.008	0.188	0.011

[a] Concentrations measured, [b] Activities measured. DCY treatment at 50 mg/L solution, BPH infestation time: 0, 24, 48, 72 or 96 h. Significant differences at $P < 0.05$.

Table S3 RNA-seq data of twelve samples

sample	Raw reads	Raw bases	Clean reads	Clean bases	Total map	Unique map	Error rate %	Q30%	GC %
C1	45367978	6.81G	44451764	6.67G	41383008(93.1%)	40478847(91.06%)	0.03	93.94	52.17
C2	50126634	7.52G	49209380	7.38G	46059401(93.6%)	45016173(91.48%)	0.03	94.23	51.5
C3	48228428	7.23G	47126368	7.07G	44084984(93.55%)	43129802(91.52%)	0.03	94.17	52.95
CB1	55325630	8.3G	54164088	8.12G	49788754(91.92%)	48696401(89.91%)	0.03	93.46	53.36
CB2	46346280	6.95G	45276496	6.79G	41493122(91.64%)	40518990(89.49%)	0.03	94.05	52.28
CB3	46861604	7.03G	45472892	6.82G	41699059(91.7%)	40787736(89.7%)	0.03	93.98	52.9
D1	45849684	6.88G	44204352	6.63G	40971574(92.69%)	40064564(90.63%)	0.03	93.68	54.57
D2	45391366	6.81G	44103322	6.62G	40793903(92.5%)	39968343(90.62%)	0.03	93.89	54.06
D3	47353182	7.1G	45033294	6.75G	41673437(92.54%)	40838696(90.69%)	0.03	94.06	53.86
DB1	46071824	6.91G	44401654	6.66G	40789300(91.86%)	39871622(89.8%)	0.03	93.64	54.04
DB2	43495248	6.52G	40782836	6.12G	37277825(91.41%)	36374586(89.19%)	0.03	94.12	49.27
DB3	42563208	6.38G	40989514	6.15G	37552649(91.62%)	36547755(89.16%)	0.03	93.83	53.52

C: Control, CB: Control + BPH, D: DCY, DB: DCY+ Control.

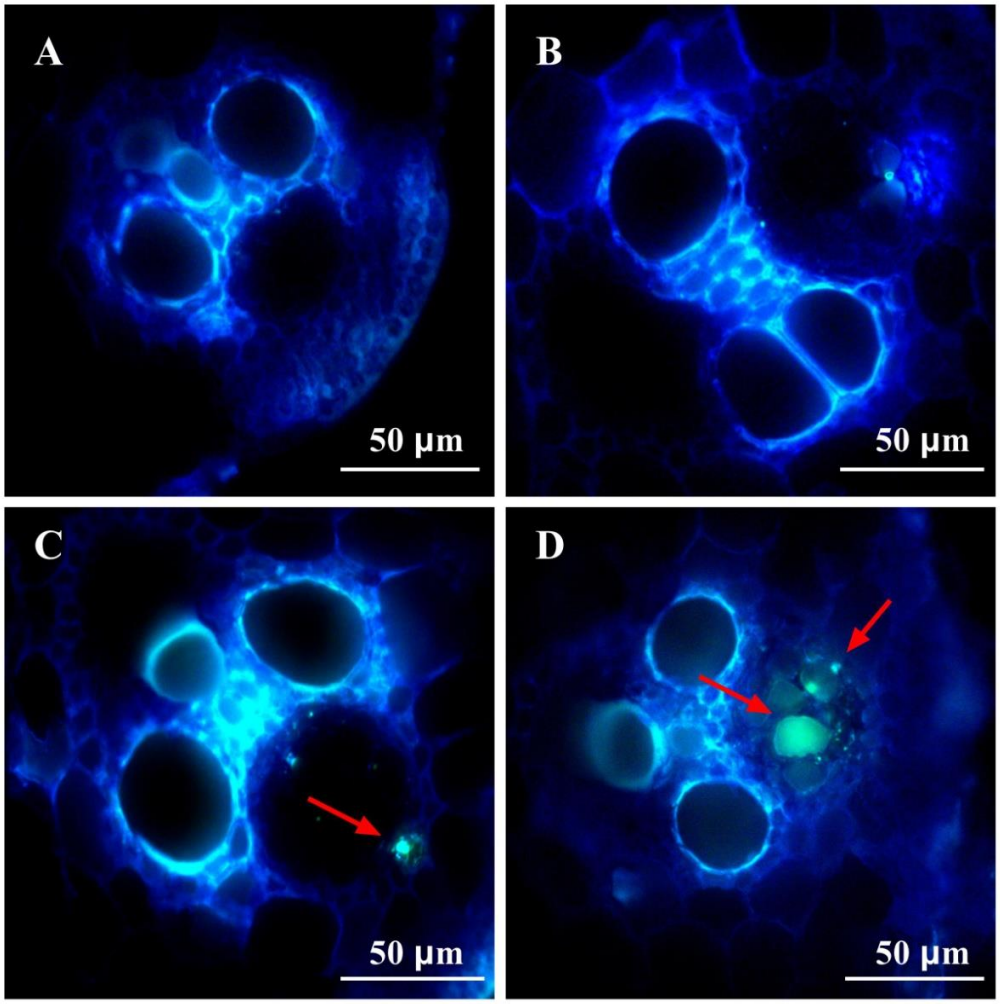

Figure S1. Callose deposition in rice leaf sheaths.

Callose deposition of (A) Control group, (B) Control + BPH group, (C) DCY group, and (D) DCY + BPH group in rice leaf sheaths for 48h.

Note: Callose deposits in leaf sheath tissue of rice in the figure are all taken under fluorescence microscope at 400 times, and bright yellow-green spots are callose. The scale is 50μm.