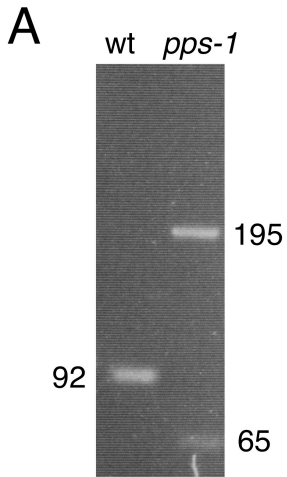


Supplemental Figure 1. Circadian clock-related gene expression under short day conditions.

(A) *Os GI*, (B) *Os PRR1*, (C) *Os LHY*. Square: wild type, and triangle: *pps-1*. Each value is the average of three independent real-time PCR assays. Vertical bars indicate SD.

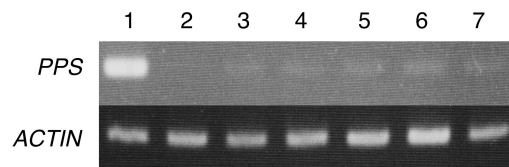


Supplemental Figure 2. Detection of *PPS* transcripts.

(A) RT-PCR of *PPS* transcripts in wild type (*wt*) and *pps-1*. The numbers indicate the length of nucleotides in wild type and *pps-1* transcripts. (B) Amino acid alignment of rice, maize and Arabidopsis COP1 orthologs. Two types of irregular transcripts in *pps-1* are indicated in amino acid alignment.



Supplemental Figure 3. Complementation test of *pps-1*.  
Left: wild type, middle: *pps-1* introduced with *pACT:PPS* that is *Os02g53140.1* cDNA under *ACTIN* promoter and right: *pps-1* mutant. Bar = 5 cm.



Supplemental Figure 4. RT-PCR analysis of *PPS* expression. 1: 4th leaf, 2: 1-week-old shoot apex, 3: 3-week-old shoot apex, 4: 5-week-old shoot apex, 5: young panicle at primary rachis branch-differentiation stage, 6: young panicle at secondary rachis branch-differentiation stage, and 7: young panicle at floral organ-differentiation stage.

**Supplemental Table 1.** . List of primers used in this study.

Primers for RT-PCR

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Gene name	Primers
<i>CAB</i>	5'-ATGTTTCGGCTTCTTCGTCCA-3'
	5'-CATCTTCCCCAACCCAAAGA-3'
<i>PPS</i>	5'-GGAGATCTGTTTCACTCTG-3'
	5'-TACCCTCATAGTCGCTGCTT-3'
<i>ACT1</i>	5'-TCCATCTTGGCATCTCTCAG-3'
	5'-GTACCCGCATCAGGCATCTG-3'

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Primers for constructs in plant transformation

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Construct name	Primers
<i>pACT:PPS</i>	5'-AATTCTAGACGCCAGTCGC-3'
	5'-CTATGCACATTTTCGAGCCCGGAAA-3'

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Primers and probes for quantitative real-time PCR

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Gene name	Primers
<i>ACT1</i>	5'-GCTATGTACGTCGCCATCCA-3'
	5'-GCTGACACCATCACCAGAGT-3'
	5'-CAATACCTGTGGTAC GACCACTGGCATAACAG-3' (Probe)

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<i>PPS</i>	5'-GCTATGTACGTCGCCATCCA-3'	
	5'-GCTGACACCATCACCAGAGT-3'	
	5'-TCCACCAATGAG CTT GCG TCT GCA-3'	(Probe)
<i>GA2ox4</i>	5'-TTGCAGGTTCTGACCAATGG-3'	
	5'-AATGGTGCAATCCTCTGTGCTA-3'	
	5'-CCTTCATCTACTTTG GAGGGCCACCG-3'	(Probe)
<i>GA3ox2</i>	5'-CGCCTCTGGCCCAAGT-3'	
	5'-CTCAAGAACAACCTCAGCAACTC-3'	
	5'-CGACGACTACCTCCT CTTCTGTGACGTG-3'	(Probe)
<i>GA20ox2</i>	5'-GCCAATGGGGAGGGTGT-3'	
	5'-CCATGATCGTCAGCGACA-3'	
	5'-CCAGAAGTACTGCGAGGAGATGAAGGA-3'	(Probe)
<i>Hd3a</i>	5'-GCTAACGATGATCCCGAT-3'	
	5'-CCTGCAATGTATAGCATGC-3'	
	5'-CTGCTGCATGCTCACTATCATCATCC-3'	(Probe)
<i>RFT</i>	5'-CGTCCATGGTGACCCAACA-3'	
	5'-CCGGGTCTACCATCACGAGT-3'	
	5'-CGGTGGCAATGACATGAGGACGTTC-3'	(Probe)
<i>RAP1B</i>	5'-CCACCAAGGGCAAGCTCTAC-3'	
	5'-AGCGCTCATAACGTTCAAGGA-3'	
	5'-AGTACGCCACCGACTCATGTATGGACAAA-3'	(Probe)

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<i>UBQ</i>	5'-GAGCCTCTGTTCGTCAAGTA-3'	
	5'-ACTCGATGGTCCATTAACC-3'	
	5'-TTGTGGTGCTGATGTCTACTTGTGTC-3'	(Probe)
<i>Os GI</i>	5'-GGTGAGGCTGAAACAATGTCAC-3'	
	5'-TCTCCCGAAATGCAGATGTCT-3'	
	5'-AAGCGCATCCACAACCTTTCTCCAACC-3'	(Probe)
<i>Os PRR1</i>	5'-ACCCATGTGTGGCGGC-3'	
	5'-GCCAACTCGAAATTGTCATTGAA-3'	
	5'-CGGATGCTTGGTTTGTTCGGAGAAAAA-3'	(Probe)
<i>Os LHY</i>	5'-CTGTTCAGTAGAGAAAGGCTTCCC-3'	
	5'-TCGATGCTTCGCTCTCAAGACG-3'	
	5'-TCTCCTCCGCAAGTAGAAGGATCA-3'	(Probe)
<i>ACT-2</i>	5'-GGCAAGTCATCACGATTGG-3'	
	5'-CAGCTTCCATTCCCACAAAC-3'	

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Primers for map-based cloning of *PPS*.

K0453A02_R-K	CAPS	5'-CTTCTTGGCCTTGTACTTGG-3'
	EcoT22I	5'-TGGTACGACGTCAAGTACGT-3'
K0122C12_R-K	STS	5'-CGATGACTACTCTGGGCTTT-3'
		5'-TTGTACCTGATACCTCGAGG-3'

Primers for ratio of *PPS* transcripts in *pps-1*

PPS-transcript-F	5'-GAGGATTTCCAGTCTGTGCT-3'
PPS-transcript-R	5'-GCAGAGTGAAACAGATCTCC-3'