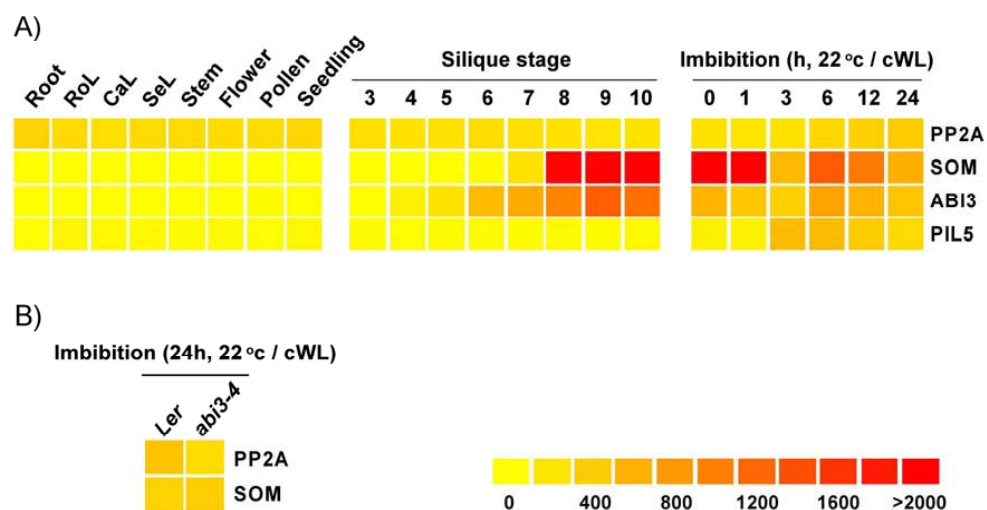
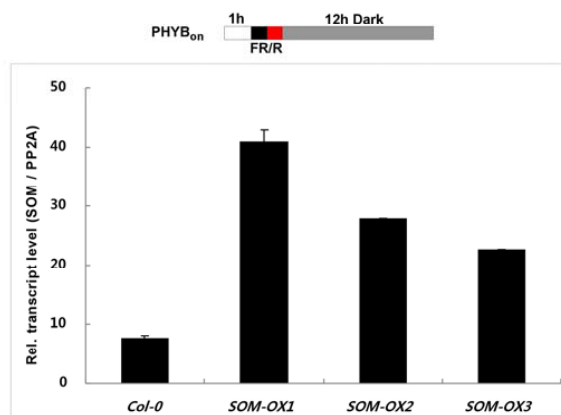


Supplemental Figure 2. Expression profiles of *SOM* during seed maturation.

(A) Averaged signal intensities of *SOM*, *ABI3*, and *PIL5* expressions were browsed from AtGenExpress database and visualized as heat maps using BAR Heat Mapper tools (<http://www.bar.utoronto.ca>) with *PP2A* as a control. (B) Averaged signal intensities of *SOM* expression in the wild type (*Ler*) and the *abi3* were browsed from the same database and visualized as heat maps. The index color map for the transcript levels was shown below. Abbreviation : RoL, rosette leaf ; CaL, cauline leaf ; SeL, senescing leaf ; cWL, continuous white light.



Supplemental Figure 3. Relative transcript levels of *SOM* in *Col-0*, *SOM-OX1*, *SOM-OX2*, and *SOM-OX3* seeds.



Supplemental Table 1. Primer sequences used for real-time PCR

Primer sequences used for semi-quantitative RT-PCR

	LP	RP
<i>PP2A</i>	TATCGGATGACGATTCTTCGTGCAG	GCTTGGTCGACTATCGGAATGAGAG
<i>GA3ox1</i>	CCGAAGGTTTCACCATCACT	CCCCAAAGGAATGCTACAGA
<i>GA3ox2</i>	TAGATCGCATCCCATCACA	TGGATAACTGCTTGGGTTCC
<i>GA2ox2</i>	AATAACACGGCGGGTCTCAAATCT	TCCTCGATCTCTTGTATCGGCTAA
<i>RGA</i>	CATTCCCGAAACGCGATTATCAG	TCACCGTCGTTCTATGACTCCA
<i>GAI</i>	AGCGTCATGAAACGTTGAGTCAGTG	TGCCAACCCAAACATGAGACAGC
<i>RGL1</i>	CAAGCTGGTGCTATGAGGAAAGTCG	GCGCAAACCTTGAGATACGGACAAGA
<i>RGL2</i>	CCGACCCGAATCTGAAACCTTAGTG	AAGCGCTTCGTTGAACCTATCGAG
<i>RGL3</i>	CAAACGAAACCTCTAATCGCTGCAT	GGGCGAAATTGTCACAAAACGAAAC
<i>ABAI</i>	GATGCAGCCAAATATGGGTCAAGG	GCCATTGCATGGATAATAGCGACTC
<i>ABA2</i>	AGAGGTGTTTGCATGATTCTGAGC	TCCAGTGATCAATGCCACTTTACCC
<i>AAO3</i>	TCGATGTGCAGGTCAAAGAATTGC	AACATCGGATGAACCTCGAAAAAGC
<i>NCED6</i>	ACCGGGTCGGATATAAATTGGGTTG	CCCGGGTTGGTTCTCTGATTTC
<i>NCED9</i>	AACCGCCGCTATGGTTTTAGACG	CCAGTCACCGGAAGGTTATGCAC
<i>CYP707A2</i>	ATGGGGTTGCCTTACATCGGAGA	TGGCTTGACAAGTGAGCTTTGCT
<i>SOM (full)</i>	ATGGATGTCGTTTGTACGGAACATCAA	TCAAGTCAAGAGATCATTGACCCATCC
<i>SOM (truncated)</i>	ATGGATGTCGTTTGTACGGAACATCAA	CAAAAGAGTGCTCGTGGGAGAGCTG
<i>SOM (expression)</i>	AGCAATCAGCGTCTCCATCTCCAG	TCAAGTCAAGAGATCATTGACCCATCC
<i>PIL5</i>	TGAATCCCGTAGCGAGGAAACAA	TTCCACATCCATTGACATCATCTG
<i>UBQ10</i>	GATCTTTGCCGAAAACAATTGGAGGATGGT	CGACTTGCATTAGAAAAGAAAGAGATAACAGG

Primer sequences used for ChIP PCR

	LP	RP
ChIP-SOM-A	AATCACAGAGAGACGCTGAGAGAGAGAAG	GGCCGTTAAGAGTAAGTATGTGAAGAAGC
ChIP-SOM-B	AATTAACGCTGTTGCTTGAAAGGAGG	GTTTTCTTCTTCTCTCGATTCAGAAAGAG
ChIP-SOM-C	GCTTTGGATTGTGTGGAACCATAATTTAAG	AACAGATATACAGATGAAAGCGGTAATTTACATTT
ChIP-SOM-D	GGTAGAAACAAAAATGTATTGCTTCCATC	ACAACACAGAAAGGATATGCACGAGATTAAT
ChIP-SOM-E	CTAGGTCTTTTATAAATAGGTTGTACGAGTTCTT	AAAGTTTATATGTAAGAAAAGACGTTCTTCAAACCTT
ChIP-SOM-F	CGAGGGATGAACCAAATTTAATGTTTCTA	CTTGATACGTAAGTCTATGTAATAAATACGT
ChIP-SOM-G	TACTTCAAATGCTGATCGCTTTAACAAACAAG	TCTCTTCTCTCTCCCTTATCAACATCC
ChIP-SOM-H	CTTCTTTTGCATGAAACCTCTCTAAAACCTC	GTAAGATGAAAGATGGGATATTGTGGTTTATATATATG
ChIP-SOM-I	GTAACATAACTGGAACAAAAGCAACAAG	GCAAAAGGACAATCAGTCCAATCG
ChIP-RGA-B	CAGACTCGGTCCTACCGTTTT	CCGTCATTAACGGCCTCTTTCT

Supplemental Table 2. Relative expression levels of various genes used for drawing graphs in the main text. The expression level of PP2A (At1g13320) was used as a control.

Relative transcript level of *SOM* – corresponding to Figure 3D.

Average value	PHYB _{off}	PHYB _{on}
<i>Col-0</i>	27.86 ± 0.00	8.4 ± 2.04
<i>phyA</i>	28.13 ± 5.48	12.06 ± 4.06
<i>phyB</i>	48.50 ± 0.00	43.74 ± 2.14

Relative transcript level of *SOM* – corresponding to Figure 3E.

Average value	PHYA _{off}	PHYA _{on}
<i>Col-0</i>	32.44 ± 3.65	8.35 ± 1.10
<i>phyA</i>	47.88 ± 6.32	42.52 ± 7.05
<i>phyB</i>	32.84 ± 8.13	12.78 ± 0.31

Relative transcript levels of GA metabolic genes – corresponding to Figure 4A.

Average value	<i>Col-0 FR</i>	<i>Col-0 R</i>	<i>som-1 FR</i>	<i>som-1 R</i>	<i>SOM-OXI FR</i>	<i>SOM-OXI R</i>
<i>GA3ox1</i>	0.04 ± 0.01	0.27 ± 0.02	0.11 ± 0.01	0.40 ± 0.01	0.01 ± 0.00	0.09 ± 0.03
<i>GA3ox2</i>	0.00 ± 0.00	0.05 ± 0.02	0.02 ± 0.00	0.11 ± 0.01	0.00 ± 0.00	0.02 ± 0.00
<i>GA2ox2</i>	0.16 ± 0.00	0.07 ± 0.01	0.07 ± 0.01	0.03 ± 0.01	0.27 ± 0.03	0.10 ± 0.02

Relative transcript levels of ABA metabolic genes – corresponding to Figure 4C.

Average value	<i>ABAI</i> (x0.1)	<i>ABA2</i>	<i>AAO3</i>	<i>NCED6</i>	<i>NCED9</i>	<i>CYP707A2</i> (x0.5)
<i>Col-0 FR</i>	0.15 ± 0.00	0.05 ± 0.01	0.08 ± 0.00	0.14 ± 0.00	0.08 ± 0.03	0.11 ± 0.02
<i>Col-0 R</i>	0.07 ± 0.00	0.05 ± 0.01	0.05 ± 0.01	0.04 ± 0.01	0.02 ± 0.01	0.17 ± 0.01
<i>som-1 FR</i>	0.10 ± 0.01	0.07 ± 0.00	0.07 ± 0.01	0.07 ± 0.02	0.04 ± 0.01	0.21 ± 0.01
<i>som-1 R</i>	0.05 ± 0.01	0.08 ± 0.03	0.05 ± 0.02	0.01 ± 0.00	0.02 ± 0.01	0.25 ± 0.01
<i>SOM-OXI FR</i>	0.25 ± 0.02	0.06 ± 0.01	0.11 ± 0.01	0.18 ± 0.03	0.10 ± 0.01	0.05 ± 0.00
<i>SOM-OXI R</i>	0.14 ± 0.02	0.07 ± 0.01	0.08 ± 0.01	0.05 ± 0.02	0.07 ± 0.00	0.13 ± 0.03

Relative transcript levels of GA signaling genes – corresponding to Figure 5A.

Average value	<i>Col-0 FR</i>	<i>Col-0 R</i>	<i>som-1 FR</i>	<i>som-1 R</i>	<i>SOM-OXI FR</i>	<i>SOM-OXI R</i>
<i>RGA</i>	3.88 ± 0.57	1.57 ± 0.08	3.77 ± 0.73	2.15 ± 0.21	3.19 ± 0.08	1.42 ± 0.14
<i>GAI</i>	5.86 ± 0.29	2.65 ± 0.26	5.49 ± 0.81	3.11 ± 0.23	5.85 ± 0.49	3.19 ± 0.77
<i>RGL1</i>	0.01 ± 0.00	0.07 ± 0.03	0.08 ± 0.02	0.05 ± 0.01	0.01 ± 0.00	0.02 ± 0.01
<i>RGL2</i>	3.81 ± 0.63	4.78 ± 0.70	5.10 ± 0.25	4.89 ± 0.24	3.95 ± 0.23	4.97 ± 0.97
<i>RGL3</i>	0.54 ± 0.00	0.83 ± 0.56	0.81 ± 0.08	1.10 ± 0.32	0.60 ± 0.09	0.66 ± 0.22

Relative transcript level of *SOM* – corresponding to Figure 6A.

Average value	PHYB _{off}	PHYB _{on}
<i>Col-0</i>	27.05 ± 3.96	8.29 ± 0.41
<i>pil5</i>	2.32 ± 0.45	3.10 ± 0.90
<i>phyB</i>	42.33 ± 4.14	40.81 ± 2.00
<i>phyB/pil5</i>	5.13 ± 0.75	2.32 ± 0.45

Relative transcript level of *SOM* – corresponding to Figure 6B.

Average value	PHYA _{off}	PHYA _{on}
<i>Col-0</i>	28.13 ± 5.48	8.08 ± 1.57
<i>pil5</i>	1.08 ± 0.10	0.70 ± 0.06
<i>phyA</i>	48.50 ± 0.00	37.11 ± 7.23
<i>phyA/pil5</i>	0.59 ± 0.04	0.47 ± 0.07

Relative transcript levels of GA metabolic genes – corresponding to Figure 7D.

Average value	GA3ox1	GA3ox2	GA2ox2
<i>Col-0</i>	0.21 ± 0.03	0.12 ± 0.02	0.12 ± 0.02
<i>PIL5-OX</i>	0.02 ± 0.08	0.00 ± 0.00	0.35 ± 0.01
<i>PIL5-OX som</i>	0.12 ± 0.01	0.08 ± 0.01	0.17 ± 0.03
<i>som</i>	0.41 ± 0.00	0.21 ± 0.03	0.08 ± 0.03

Relative transcript levels of ABA metabolic genes – corresponding to Figure 7E.

Average value	ABA1 (x0.1)	ABA2	AAO3	NCED6	NCED9	CYP707A2 (x0.5)
<i>Col-0</i>	0.13 ± 0.01	0.09 ± 0.00	0.07 ± 0.01	0.10 ± 0.00	0.08 ± 0.00	0.16 ± 0.02
<i>PIL5-OX</i>	0.34 ± 0.03	0.10 ± 0.01	0.14 ± 0.02	0.16 ± 0.03	0.15 ± 0.02	0.04 ± 0.00
<i>PIL5-OX som</i>	0.22 ± 0.01	0.08 ± 0.02	0.12 ± 0.02	0.12 ± 0.01	0.10 ± 0.01	0.12 ± 0.01
<i>som</i>	0.07 ± 0.03	0.05 ± 0.02	0.08 ± 0.02	0.05 ± 0.01	0.06 ± 0.01	0.29 ± 0.07

Relative transcript levels of GA signaling genes – corresponding to Figure 7F.

Average value	RGA	GAI	RGL1	RGL2	RGL3
<i>Col-0</i>	1.69 ± 0.25	3.06 ± 0.60	0.09 ± 0.03	4.76 ± 0.23	1.11 ± 0.43
<i>PIL5-OX</i>	3.87 ± 0.19	6.51 ± 0.64	0.01 ± 0.00	6.51 ± 0.64	0.58 ± 0.06
<i>PIL5-OX som</i>	3.16 ± 0.46	5.17 ± 0.81	0.17 ± 0.09	5.89 ± 0.86	1.11 ± 0.43
<i>som</i>	1.81 ± 0.27	2.59 ± 0.68	0.14 ± 0.06	4.16 ± 0.10	1.33 ± 0.39

Relative transcript level of *SOM* – corresponding to Supplemental Figure 3.

	Average value
<i>Col-0</i>	7.73 ± 0.38
<i>SOM-OX1</i>	40.81 ± 2.00
<i>SOM-OX2</i>	27.86 ± 0.00
<i>SOM-OX3</i>	22.63 ± 0.00