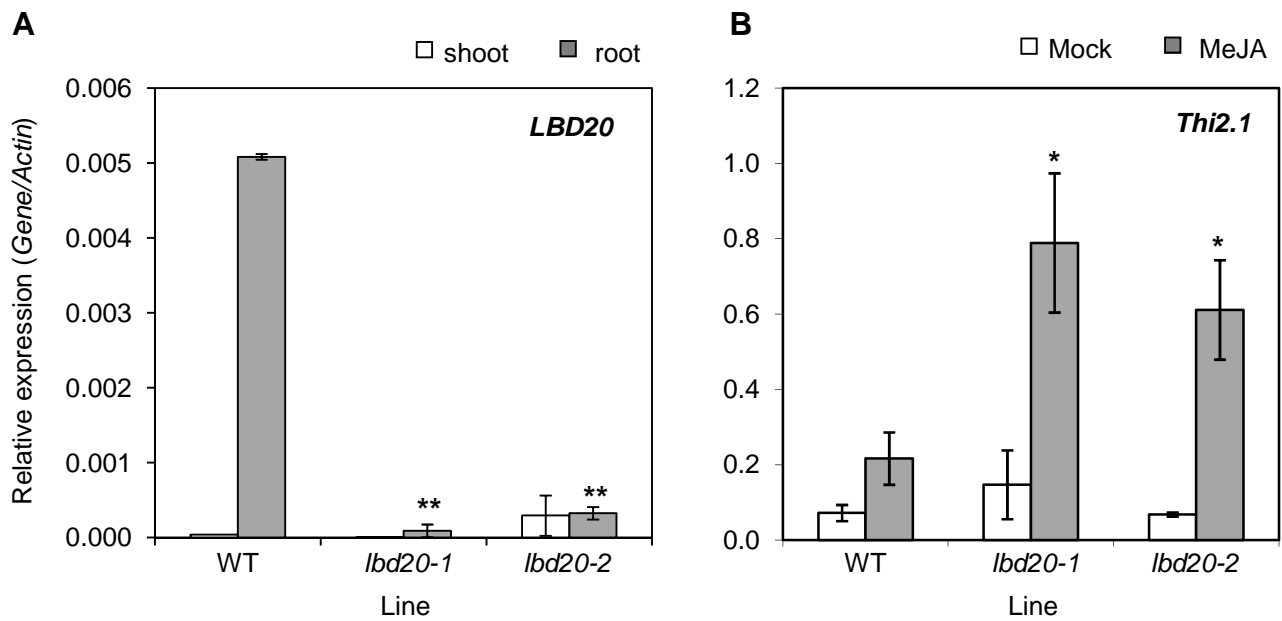
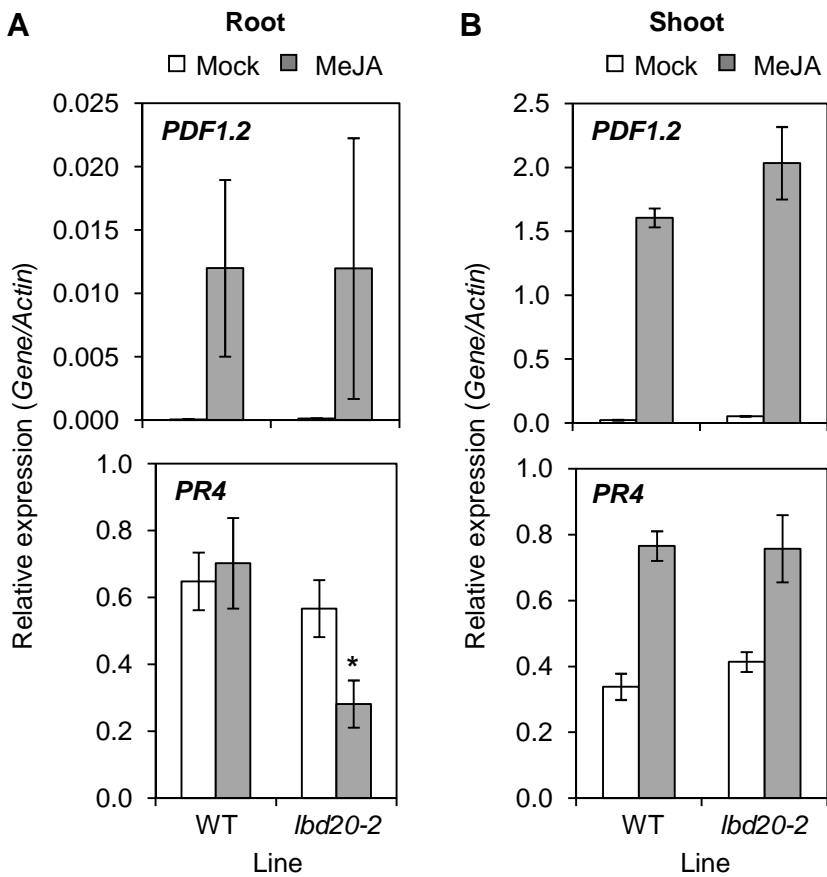


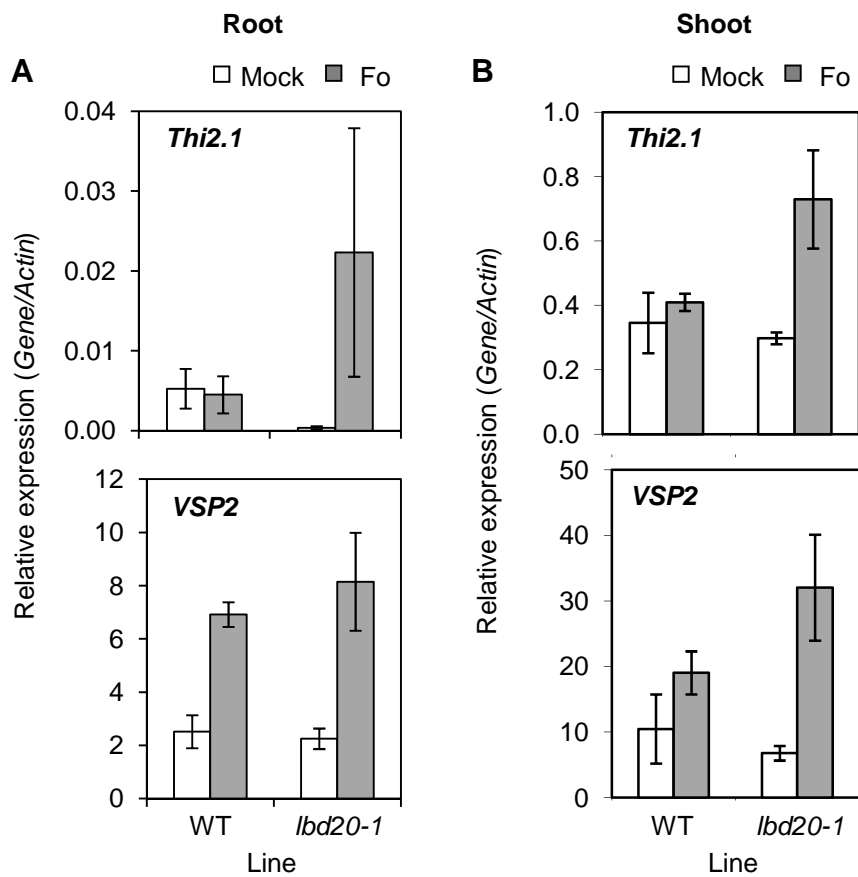
Supplemental Figure S1. *Fusarium* disease score ratings system. Following *F. oxysporum* infection, plants were given a disease score rating ranging from 0 to 5. (0) No symptoms, (1) minimal symptoms, 1 leaf chlorotic, (2) >1 leaf chlorotic, minimal necrosis, (3) >50% chlorosis and necrosis, (4) extensive necrosis, stunting, (5) dead.



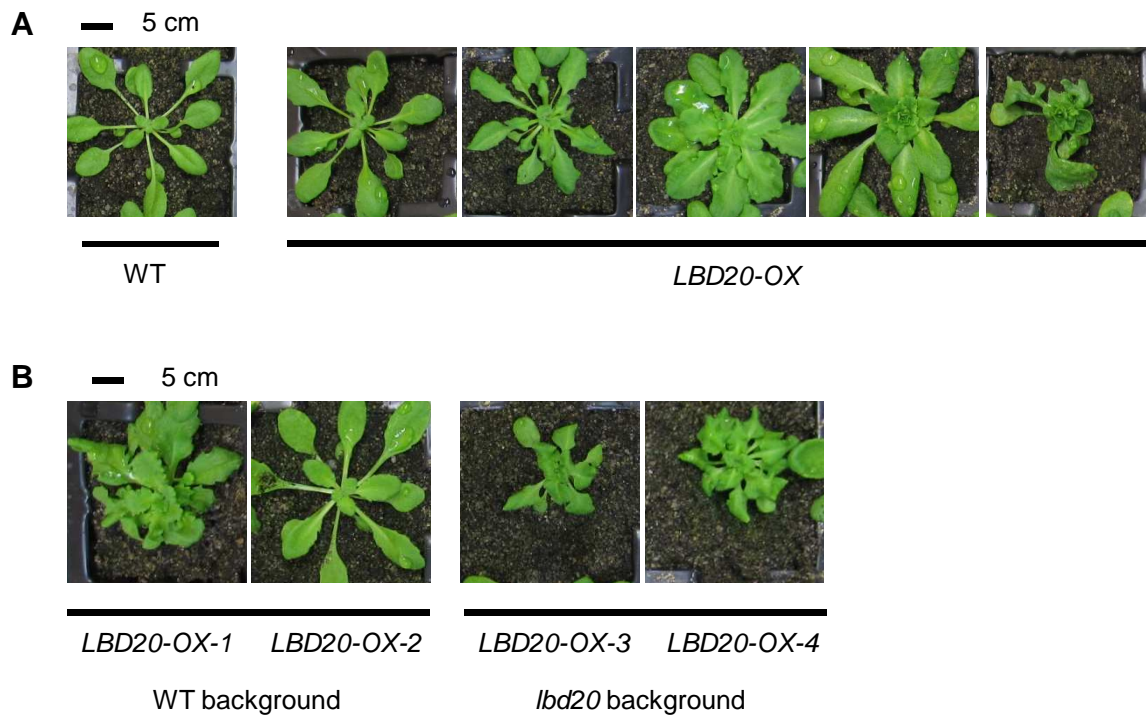
Supplemental Figure S2. Analysis of *lbd20* T-DNA mutants. (A) *LBD20* expression was examined in shoot and root tissue of wild-type (WT) and *lbd20* plants. Both *lbd20* alleles had either non-detectable or trace levels of *LBD20*. (B) *Thi2.1* expression was examined in WT and *lbd20* shoot tissue 6 h post mock or MeJA treatment. Gene expression levels are relative to the internal control β -actin genes. The average of three biological replicates consisting of pools of thirty to forty plants is shown with SE. Asterisks indicate values that are significantly different (** $P < 0.01$, * $P < 0.05$ Student's *t*-test) from WT in the same tissue or treatment.



Supplemental Figure S3. *PDF1.2* and *PR4* expression in wild-type versus *lbd20* plants following MeJA treatment. Expression of the JA-defense marker genes *PDF1.2* and *PR4* was examined in wild-type (WT) and *lbd20* (A) root or (B) shoot tissue 6 h post mock or MeJA treatment. Gene expression levels are relative to the internal control β -actin genes. The average of three biological replicates consisting of pools of thirty to forty plants is shown with SE. Asterisks indicate values that are significantly different ($*P < 0.05$ Student's *t*-test) from WT. Similar results were obtained in independent experiments.



Supplemental Figure S4. LBD20 is a repressor of a subset of JA-regulated defense genes following *Fusarium* infection. Expression of JA-response genes was examined in wild-type (WT) and *lbd20* (A) root or (B) shoot 48 h post mock or *F. oxysporum* (Fo) inoculation. Gene expression levels are relative to the internal control β -actin genes. The average of three biological replicates consisting of pools of thirty to forty plants is shown with SE. *PDF1.2* and *PR4* were induced similarly in both WT and *lbd20* shoots (data not shown).



Supplemental Figure S5. Plants over-expressing *LBD20* have altered leaf morphology and fertility. (A) Range in severity of phenotypes in T1 plants over-expressing *LBD20* under a dual 35S promoter (*LBD20-OX*) compared to wild-type (WT). 26% of T1 plants died due to deformed growth, and 22% produced little or no seed. (B) Leaf morphology of *LBD20-OX* plants in a wild-type (WT) or *lbd20* background carrying a single copy insertion of the 35S::*LBD20* transgene and used for gene expression and *Fusarium* infection experiments.

Supplemental Table S1. RT-Q-PCR primers used in gene expression analyses.

| Gene | Locus (AGI) | Forward primer sequence 5'-3' | Reverse primer sequence 5'-3' |
|---|----------------|-------------------------------|-------------------------------|
| <i>ACT-8</i> (reference) | At1g49240 | | GAGGATAGCATGTGGA ACTGAGAA |
| <i>ACT-2</i> (reference) | At3g18780 | | GATGGCATGGAGGAAGAGAGAAAC |
| <i>ACT-7</i> (reference) | At5g09810 | | GAGGAAGAGCATTCCCCTCGTA |
| <i>ACT-</i> universal (reference) | | AGTGGTCGTACAACCGGTATTGT | |
| <i>LBD20</i> | At3g03760 | GGCTCAAGCTAGGCTCTCTG | ATTGCACCACCGATAACTCC |
| <i>PDF1.2</i> | At5g44420 | TTTGCTGCTTTGACGCAC | CGCAAACCCCTGACCATG |
| <i>Thi2.1</i> | At1g72260 | CTCAGCTGATGCTACCAATGAGC | GCTCCATTACAAATTTCACTTGC |
| <i>VSP2</i> | At5g24770 | CCTAAAGAACGACACCGTCA | TCGGTCTTCTCTGTTCCGTA |
| <i>PR4</i> | At3g04720 | TGCTACATCCAAATCCAAGCCT | CGGCAAGTGTTTAAGGGTGAAG |
| <i>MYC2</i> | At1g32640 | TCATACGACGGTTGCCAGAA | AGCAACGTTTACAAGCTTTGATTG |