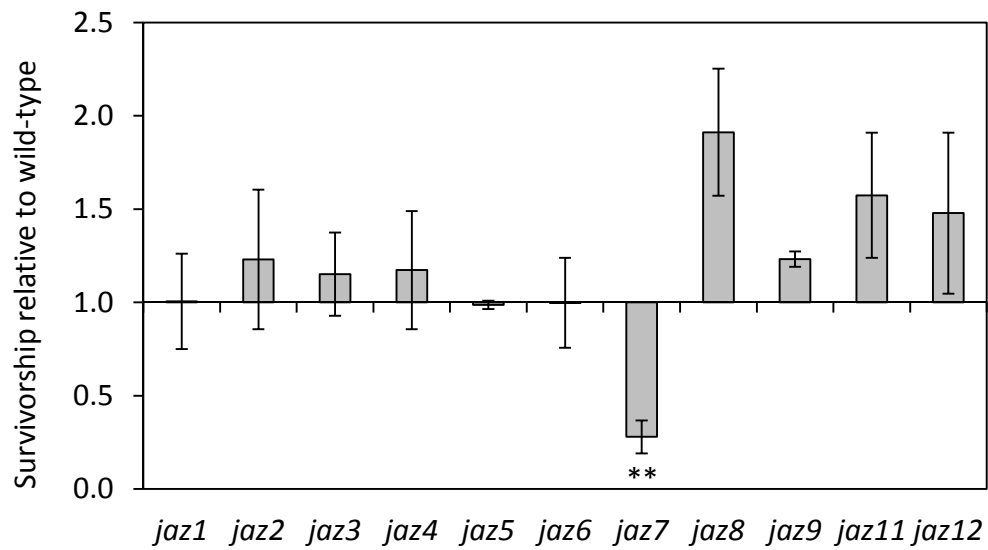


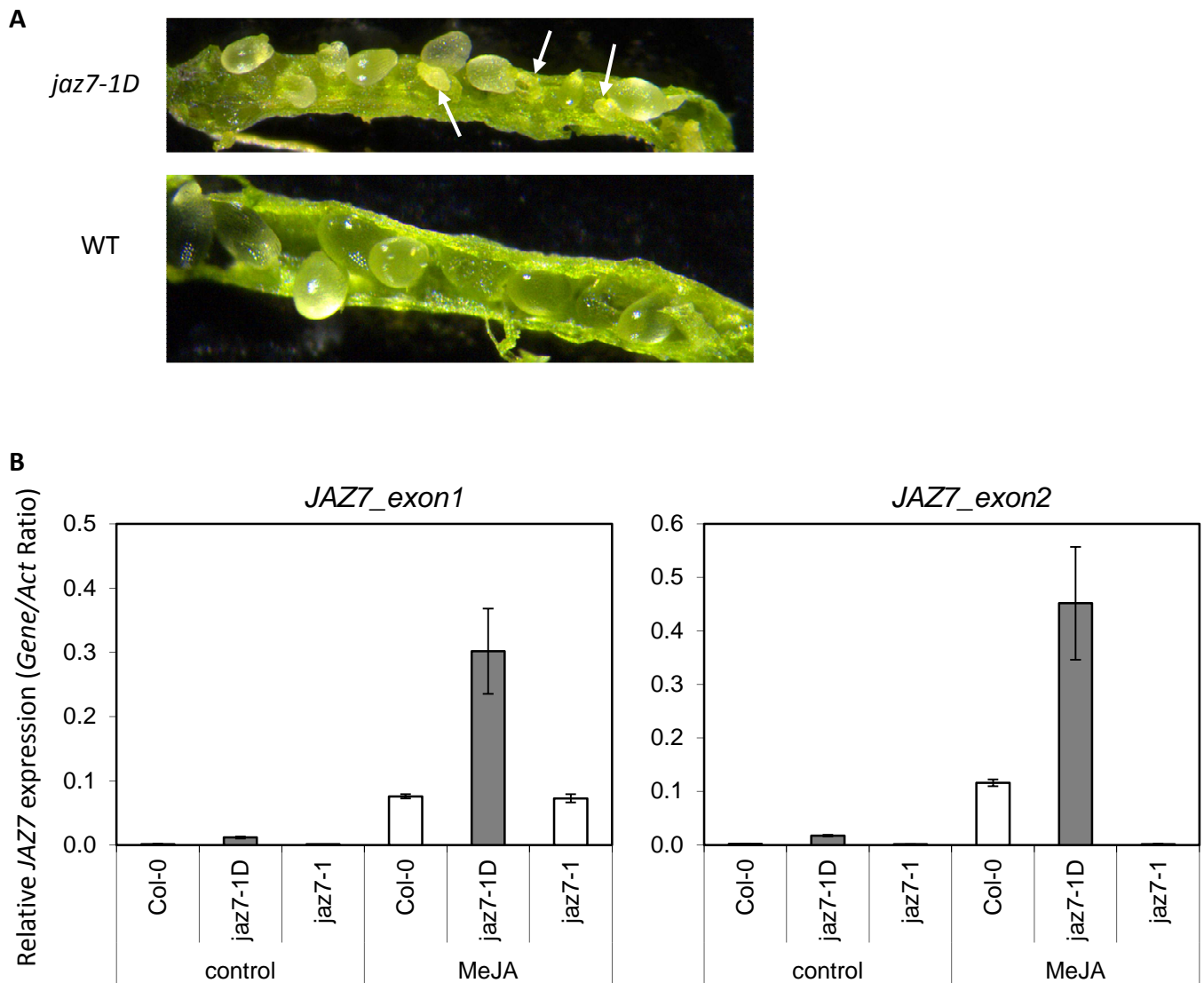


**Supplementary Fig. S1. Schematic representation of *jaz* T-DNA insertion lines.**

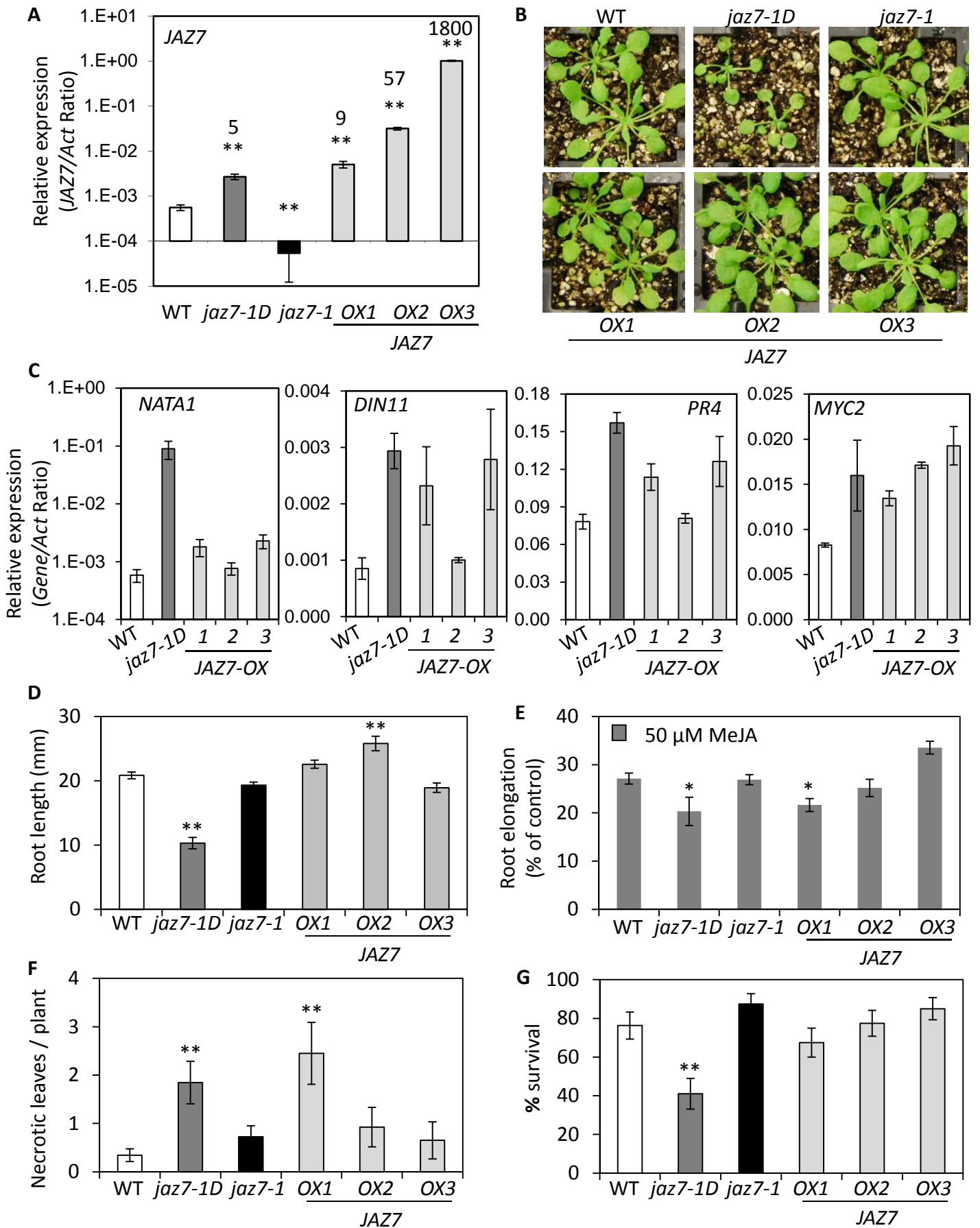
Shown are details of T-DNA insertion lines used in this study. The exact location of the T-DNA inserts is not depicted and are not to scale. UTRs, exons and introns are represented by grey bars, black bars and raised lines, respectively.



**Supplementary Fig. S2. Screening of *jaz* T-DNA insertion lines in *F. oxysporum* disease assays.** *jaz* T-DNA insertion lines were screened in *F. oxysporum* disease assays and survivorship recorded relative to wild-type plants at 21-days post inoculation. Shown is the average of two biological replicates  $\pm$  SE (n=55). Asterisks indicate values that are significantly different (\*\* $P < 0.01$  Student's *t*-test) from WT.



**Supplementary Fig. S3. Detection of seed aborts in *jaz7-1D* and confirmation of *jaz7-1*.** (A) Siliques of *jaz7-1D* and WT were examined for seed aborts with a 1:3 ratio (7:19) of aborts (indicated by arrows) to normal ovules observed in *jaz7-1D*. (B) Primers specific to the first or second exon of *JAZ7* were used to screen for full or truncated transcripts derived from the *jaz7-1* T-DNA line WiscDsLox7H11. *JAZ7* transcript 5' to the T-DNA insertion site was detected at levels similar to Col-0 however, it is unlikely 5' *JAZ7* transcripts would produce a truncated protein as non-polyadenylated transcripts would be degraded if not correctly processed. No transcript was detected with primers specific to the second exon (3' to T-DNA insertion site). Values are averages  $\pm$  SE of three biological replicates consisting of pools of 10 plants. Gene expression levels are relative to the internal control  $\beta$ -actin genes.

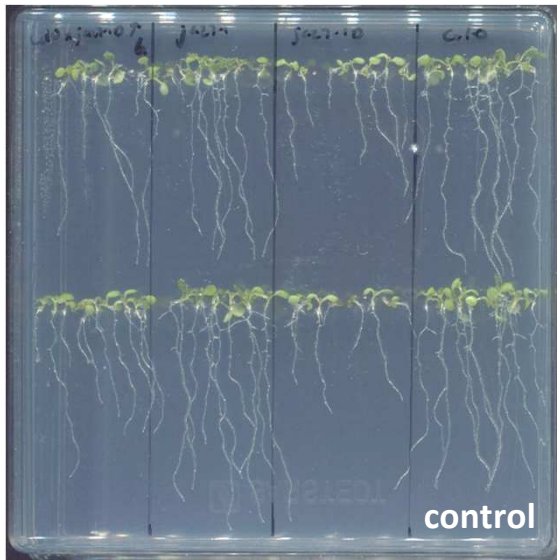


Supplementary Fig. S4. Ectopic over-expression of *JAZ7* in wild-type plants.

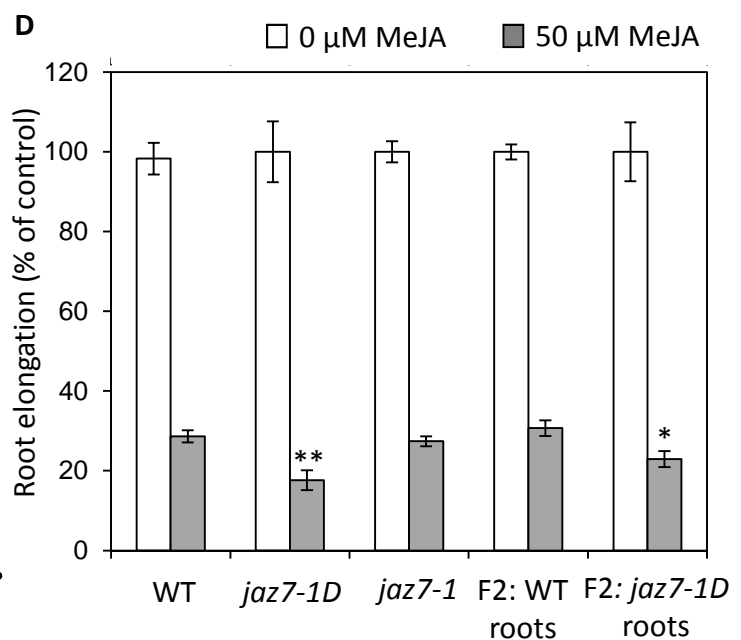
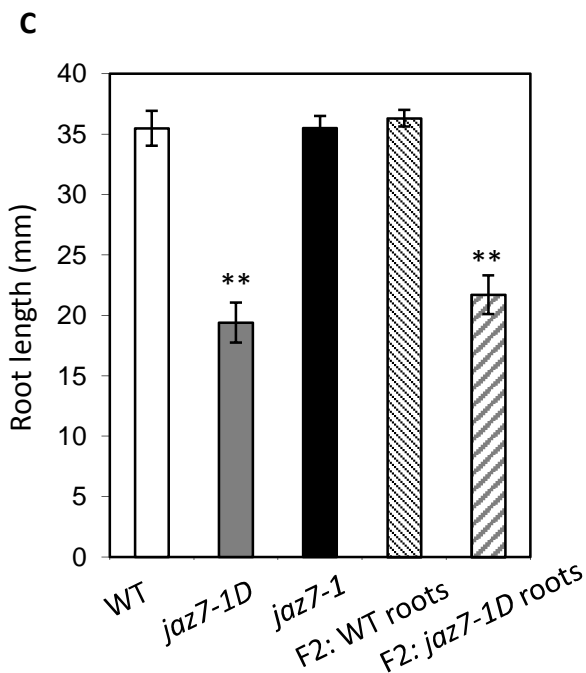
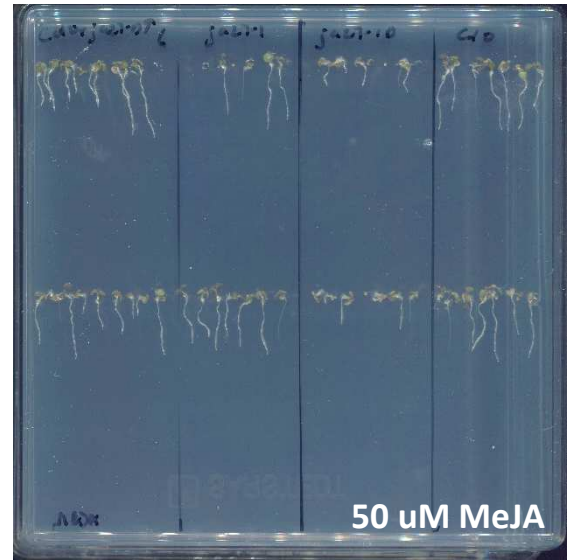
**Supplementary Fig. S4. Ectopic over-expression of JAZ7 in wild-type plants.**

(A) Basal *JAZ7* expression in *35S:JAZ7* overexpression (*JAZ7-OX*) lines. Values are averages  $\pm$  SE of three biological replicates consisting of pools of 10-20 plants. Shown also is fold increase in *JAZ7* expression over wild-type (WT). Gene expression levels are relative to the internal control  *$\beta$ -actin* genes. (B) Phenotypes of *jaz7* mutant lines. (C) Basal expression of JA-marker genes was examined in shoot tissue of wild-type (WT), *jaz7-1D* and *35S:JAZ7* over-expression (*JAZ7-OX*) plants. Values are averages  $\pm$  SE of three biological replicates consisting of pools of 10 plants. Gene expression levels are relative to the internal control  *$\beta$ -actin* genes. (D-E) (D) Root growth on control media and (E) sensitivity of WT, *jaz7-1D*, *jaz7-1* and *JAZ7-OX* seedlings to MeJA 7-days post germination. Values are averages  $\pm$  SE of three biological replicates consisting of pools of 10-15 seedlings. (F-G) *F. oxysporum* disease assays with (F) necrotic leaves per plant at 14-days post inoculation and (G) survival rates at 28-days. Values are averages  $\pm$  SE (n=40). Asterisks indicate values that are significantly different (\*\* $P < 0.01$ , \* $P < 0.05$ , Student's *t*-test) from WT. Similar results were obtained in independent experiments.

**A** Col-0 x *JAZ7-1D*    *jaz7-1*    *JAZ7-1D*    Col-0



**B** Col-0 x *JAZ7-1D*    *jaz7-1*    *JAZ7-1D*    Col-0



**Supplementary Fig. S5. Backcrossed F<sub>2</sub> *jaz7-1D* seedlings have short roots and are JA-hypersensitive.** (A-D) Growth of wild-type (Col-0), *jaz7-1D*, *jaz7-1* and F<sub>2</sub> seedlings from a cross between Col-0 and *jaz7-1D* on (A) control media and (B) MeJA (50  $\mu$ M) containing media 7-days post germination. (C-D) F<sub>2</sub> seedlings segregated 2:1 for heterozygous *jaz7-1D*:WT root lengths under control and MeJA treatments. F<sub>2</sub> Seedlings with *jaz7-1D* root phenotype were significantly different from WT but not from *jaz7-1D*. Root elongation of each line when grown on control media or media containing MeJA was calculated as a percentage relative to control treatment. Values are averages  $\pm$  SE of 10-15 seedlings. Values that differed significantly from the WT were identified by the one-way Anova and Dunnet's post-hoc test (\*\* $P$ <0.01, \* $P$ <0.05). Similar results were obtained in an independent experiment.