Pectin methylesterase NaPME1 contributes to the emission of methanol during insect herbivory and to the elicitation of defence responses in *Nicotiana attenuata*

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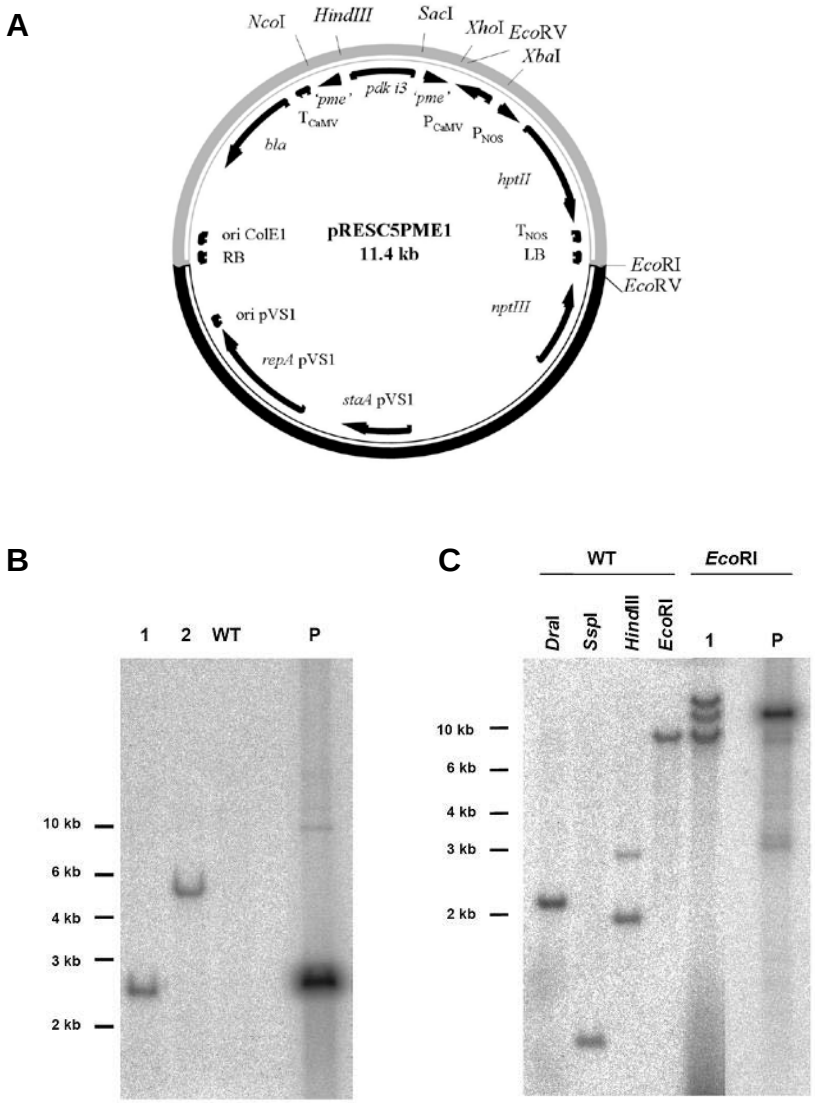

Figure S1:
Plant transformation vector pRESC5PME1 and Southern blot analysis of ir-*pme* lines and WT.
(A) *N. attenuata* plant transformation vector pRESC5PME1 used to generate transgenic ir-*pme* lines. The transferred T-DNA is shown in grey with right and left border (RB, LB). The T-DNA contains two fragments of the *N. attenuata* pectin methylesterase gene Na*PME1* (*pme*) in opposite directions and the selection marker gene (*hptII*). **(B)**, **(C)** Southern blot analysis of WT and ir-*pme* lines. **(B)** Genomic DNA of WT and both ir-*pme* lines, 434-7 (1) and 457-8 (2), and pRESC5PME1 plasmid (P) DNA were digested with *Eco*RV. The blot was hybridized with a ^{32}P-labeled probe specific for the hygromycin phosphotransferase gene *hptII*. **(C)** Genomic DNA of WT was digested with *Dra*I, *Ssp*I, *Hind*III and *Eco*RI. Genomic DNA of ir-*pme* line 434-7 (1) and the pRESC5PME1 plasmid (P) were digested with *Eco*RI. The blot was hybridized with a ^{32}P-labeled probe specific for the pectin methylesterase gene Na*PME1*.

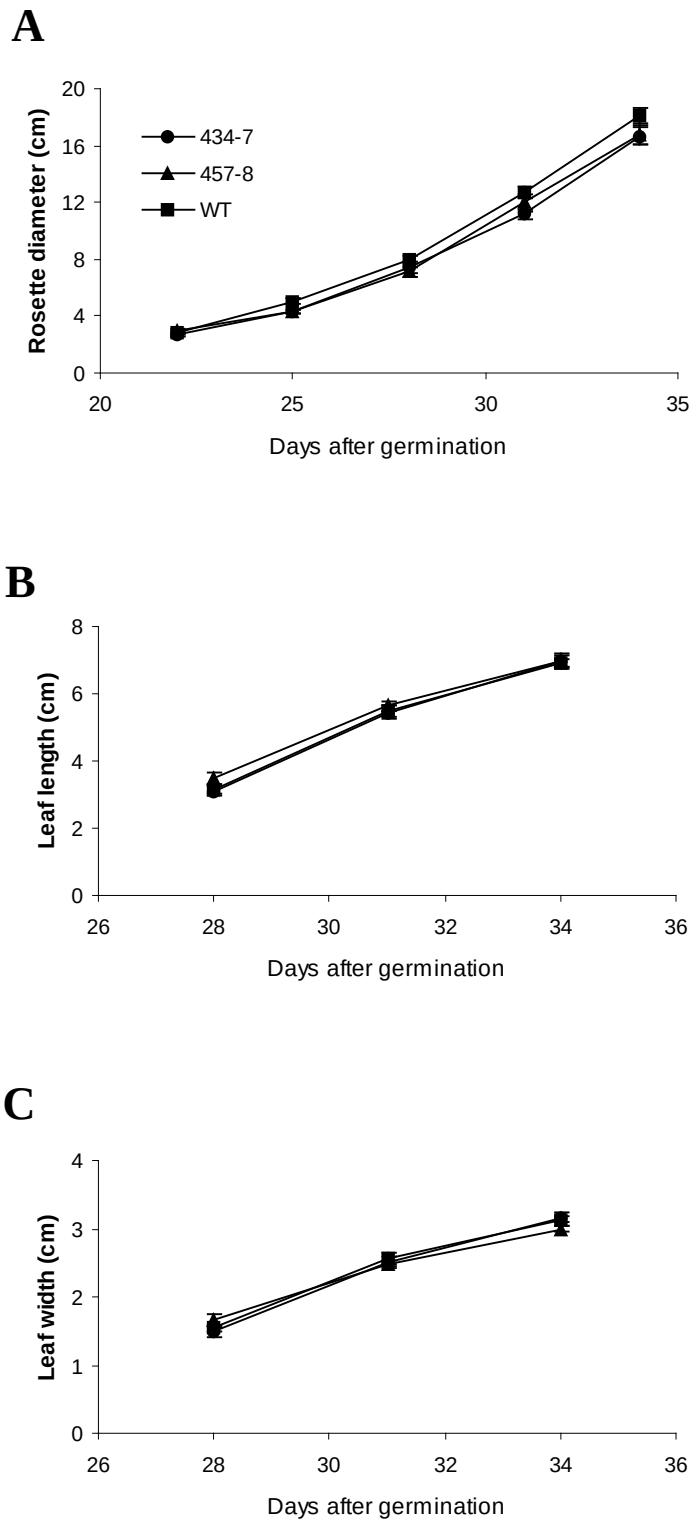

Figure S2:
Growth parameters of WT and ir-*pme* lines.
Mean (± SE) rosette diameter **(A)**, leaf length **(B)** and leaf width **(C)** of WT plants (squares) and two transformed ir-*pme* lines, 434-7 (circles) and 457-8 (triangles) (n = 10).

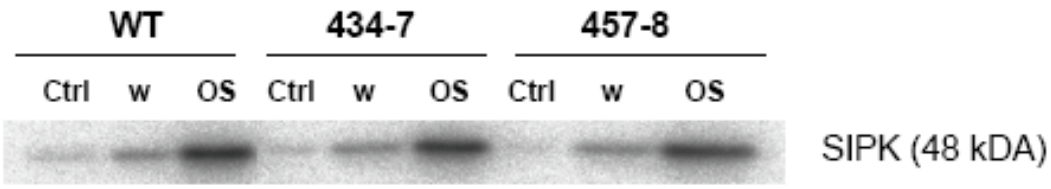

Figure S3:
In-Gel MAP kinase activity assay of WT and ir-*pme* lines.
SIPK activity in WT plants and both ir-*pme* lines (434-7, 457-8) 10 min after wounding and application of either water (w) or 1:1 diluted *M. sexta* oral secretions (OS) and in control leaves (Ctrl).

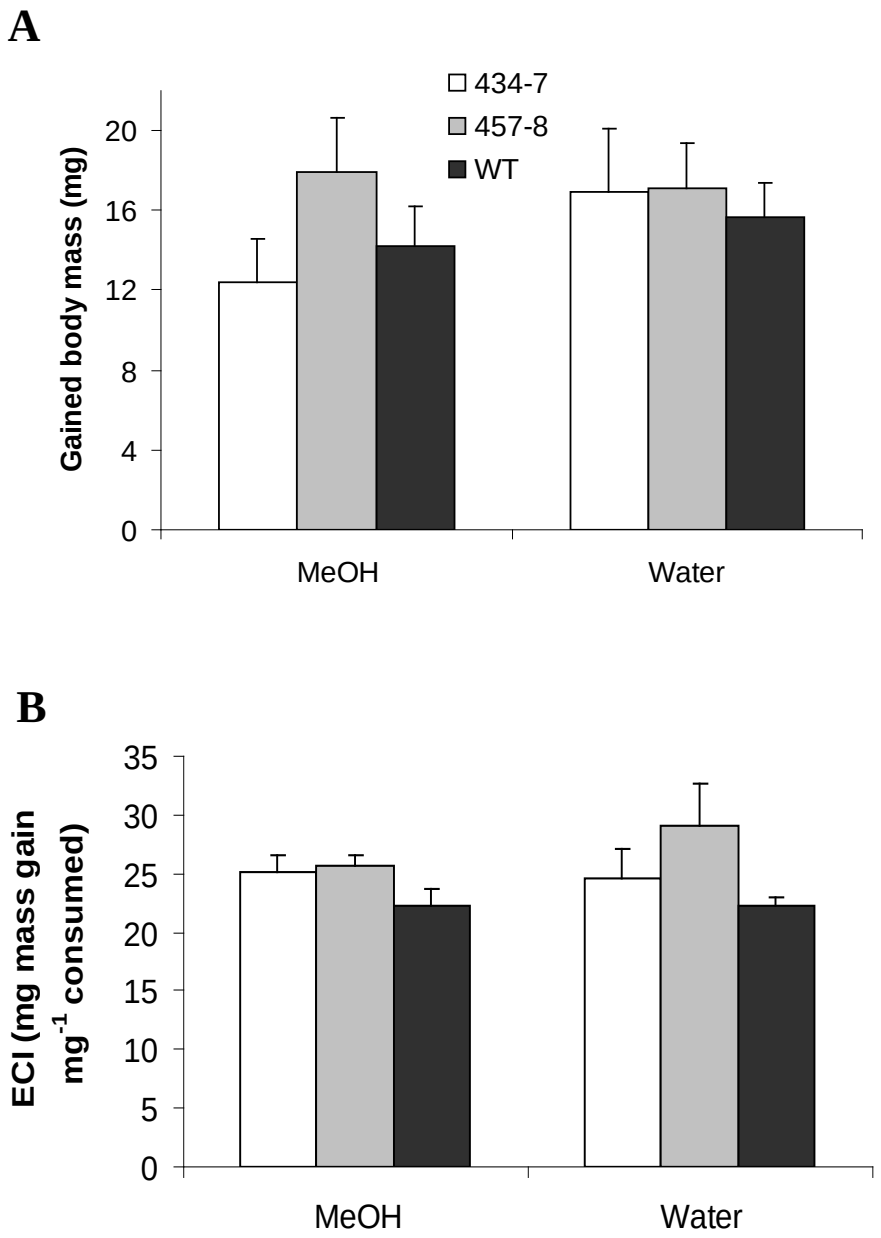

Figure S4:
Nutritional indices of *M. sexta* larvae feeding on WT and ir-*pme* lines.
Mean (± SE) larval dry mass **(A)** and efficiency of conversion of ingested food (ECI) **(B)** of *M. sexta* larvae after 9 days of feeding on excised leaves of WT and ir-*pme* lines. Plants were sprayed with either a 5% methanol solution or water. Spraying started 4 days before the start of the caterpillar experiment and was continued until the end of the experiment (n = 10-14).