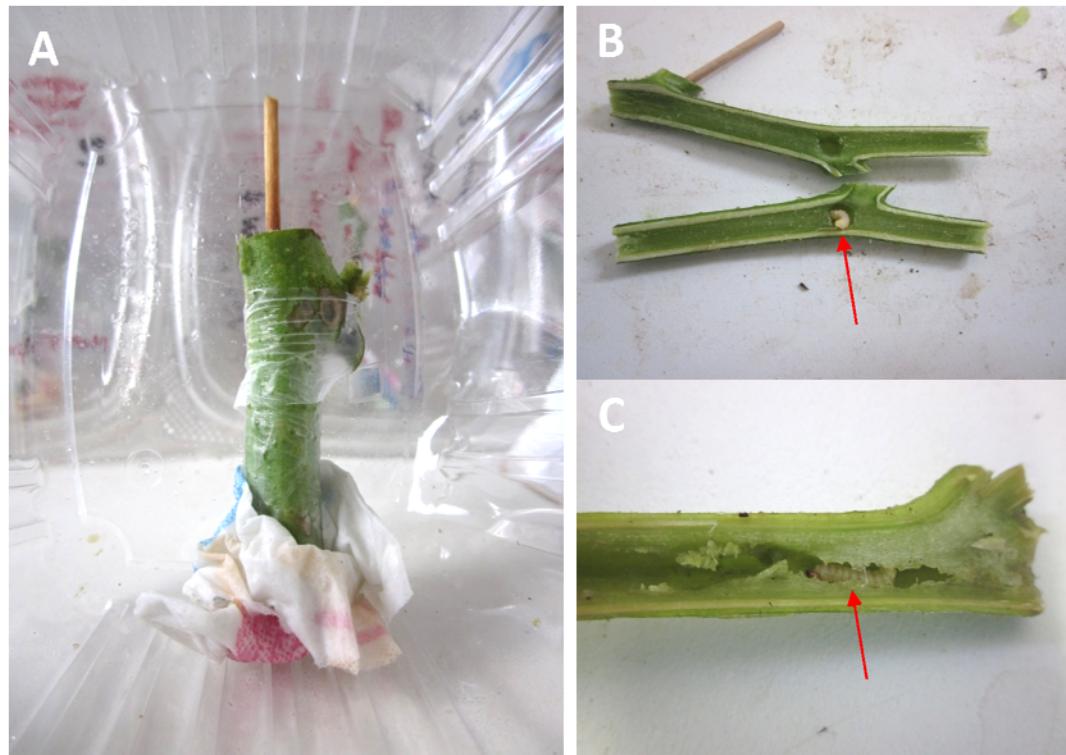


Supplemental material:

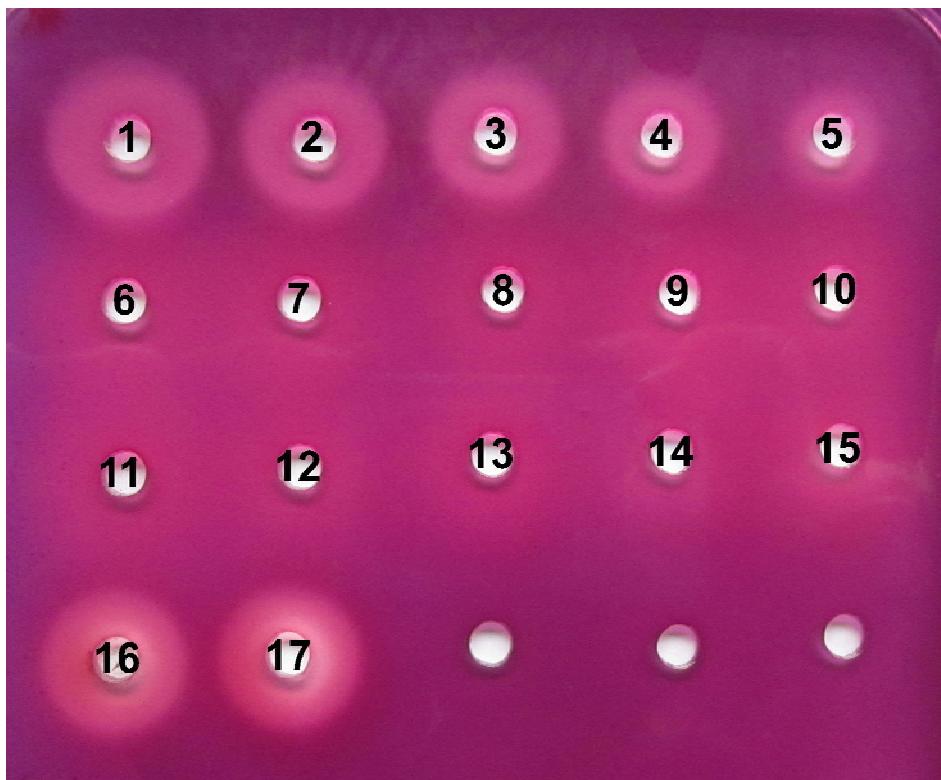


Supplemental Figure 1: experimental setup for *T. mucorea* pith choice assay.

A: shown is the two stem halves of *N. attenuata* wrapped in Parafilm between which the larvae of *T. mucorea* was placed. Wet tissue on the bottom of the stem kept the stem halves fresh and the wooden stick indicated the genotype. Stems were placed vertically during the choice tests.

B: shown is the third to fourth instar larva that was placed in an equally sized hole made into the pith of both stem halves.

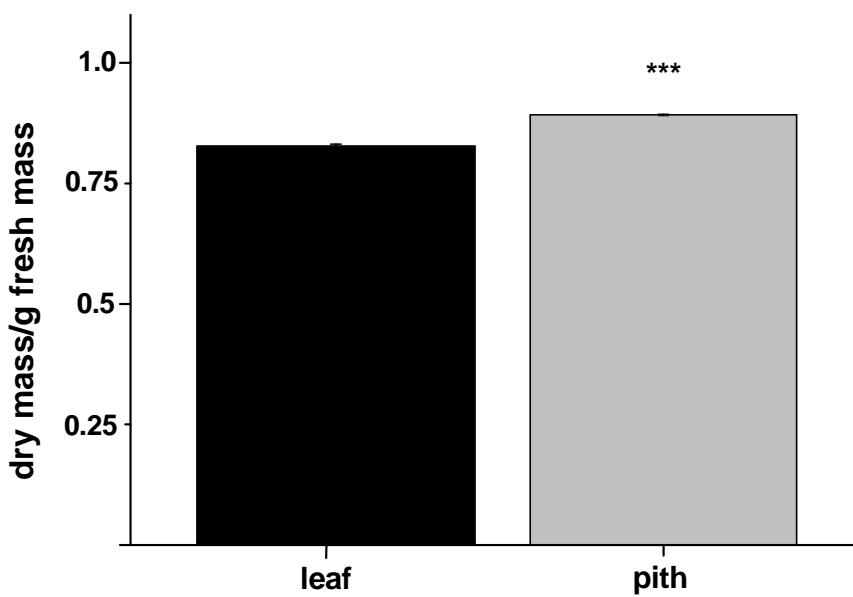
C: larval choice after 24h. The other stem half wasn't touched by the larva.



Supplemental Figure 2: PI activity in *N. attenuata* leaves and pith

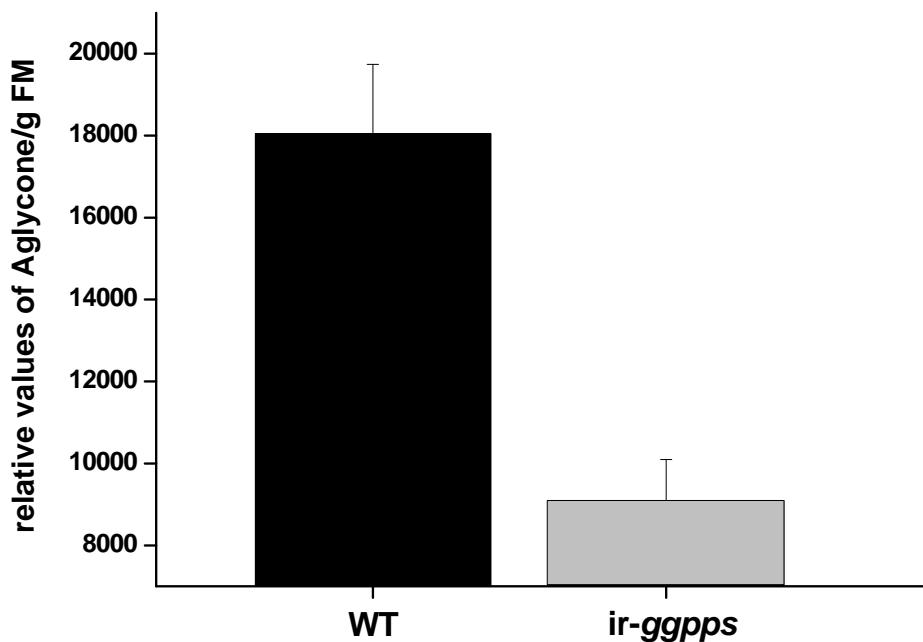
Shown are diameters indicating PI activity in different *N. attenuata* tissues.

- 1-5: Standard curve of different concentrations of soybean proteinase inhibitor ranging from 0.3mg mL⁻¹ (1) to 0.0187mg mL⁻¹ (5).
- 6-10: PI activity in *N. attenuata* WT pith four days after treatment with *M. sexta* OS
- 11-15: PI activity in *N. attenuata* ir-pi pith after treatment with *M. sexta* OS
- 16-17: PI activity in *N. attenuata* WT leaves after treatment with *M. sexta* OS



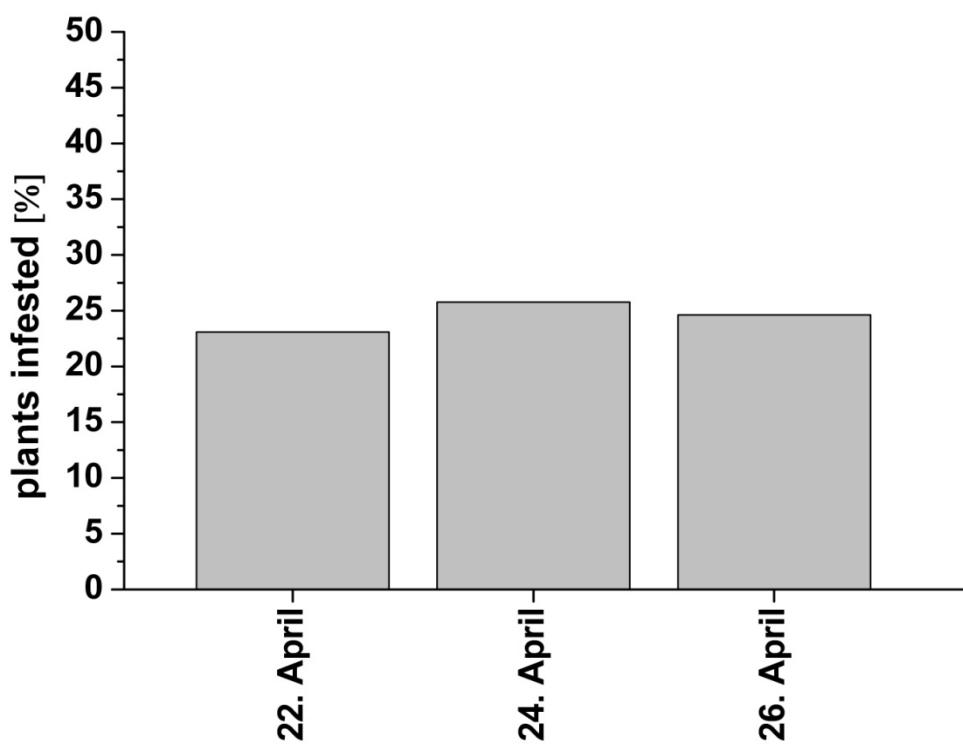
Supplemental Figure 3: dry mass/fresh mass of leaves and pith of *N. attenuata*

Shown are mean (\pm SE) dry:fresh mass ratios of leaves and pith *N. attenuata* WT plants. Dry mass was determined after samples had spent six days in a 80°C drying oven. Dry:fresh mass ratios were compared with Student's t test ($t_{18} = -13.569$, $P < 0.0001$).



Supplemental Figure 4: Diterpene aglycone levels in pith of GGPPS plants are lower than in pith of WT *N. attenuata* plants.

Values are relative concentrations of diterpene aglycone levels per gram fresh mass (FM) accumulated in the pith of WT, and GGPPS plants. Pith was taken from plants growing in a field plot in the great basin desert in SW Utah. Different letters indicate significant differences among genotypes (ANOVA; $P < 0.01$).



Supplemental Figure 5: planting times and average infestation percentages of *T. mucorea* in *N. attenuata* WT plants.

Shown are *T. mucorea* infestation percentages of WT plants from the field plot which were planted during three days within the week of the 2009 field season during which all plants shown in Figure 4 were planted.