

S1

Frass proteins after isoelectric fractionation

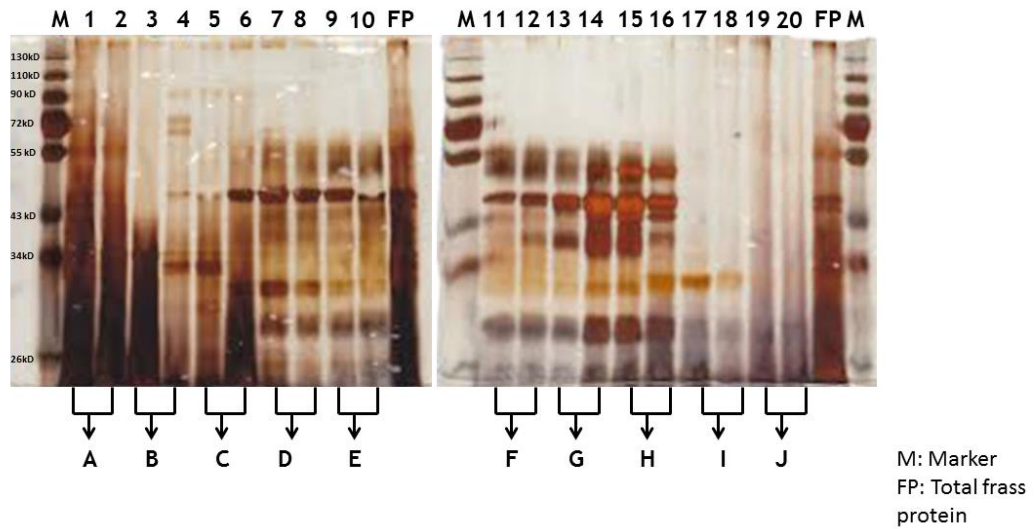


Fig S1: Denaturing polyacrylamide gel showing proteins in fractions A-J after isoelectric focusing of frass proteins.

S2

Denaturing polyacrylamide gel showing chitin binding proteins in FAW frass

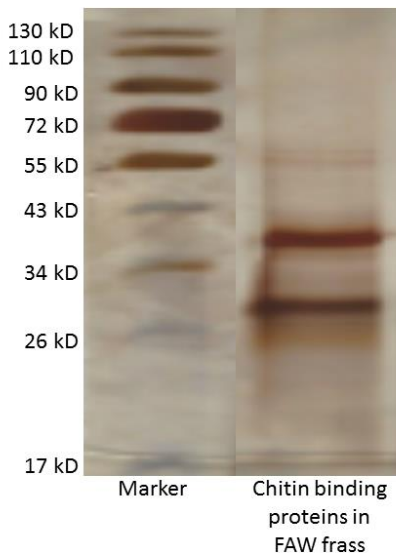
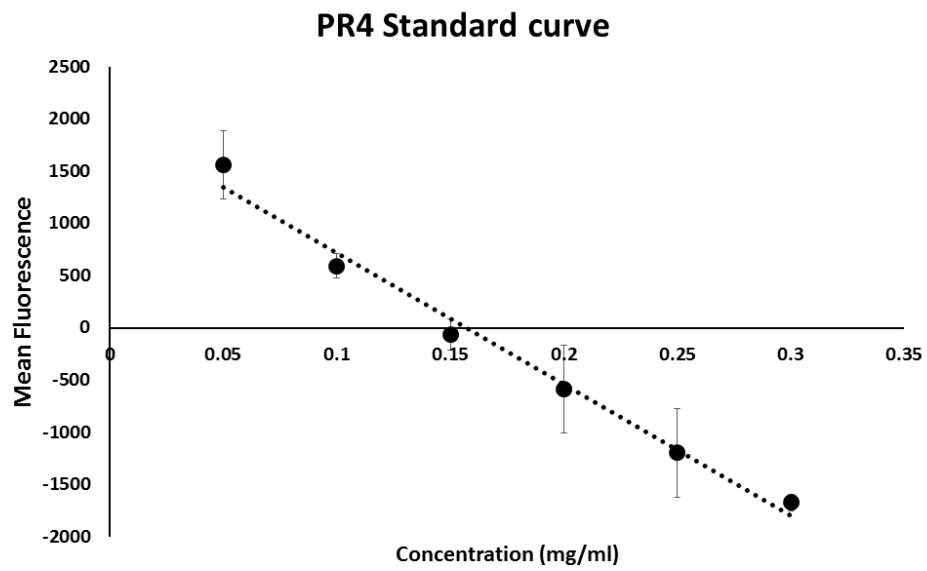


Fig S2: Denaturing polyacrylamide gel showing chitin-binding proteins in FAW frass

S3a



S3b

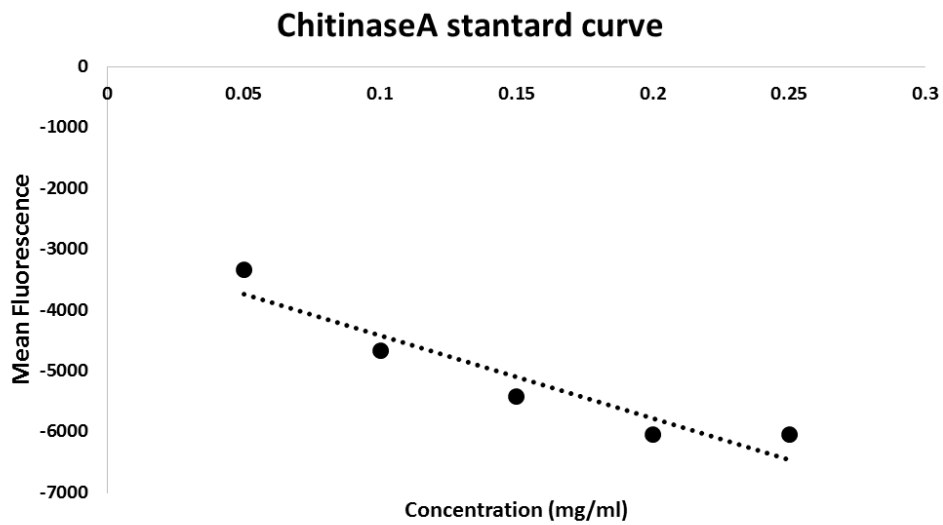
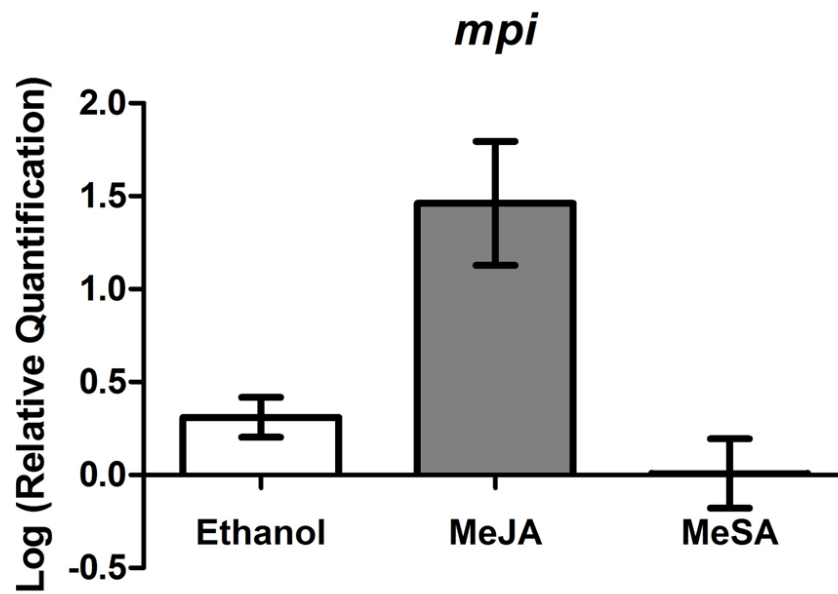


Fig S3: Standard curve showing Pr4 (a) and Endochitinase A (b) chitinase activity.

S4a



S4b

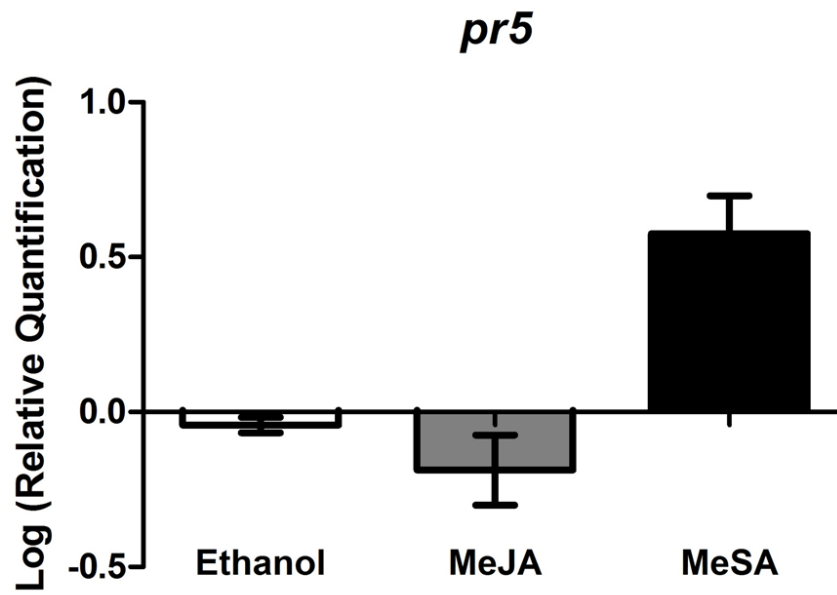


Fig S4: Expression of maize herbivore defense gene *mpi* (a) and *pr5* (b) in response to 10mM Methyl jasmonate (MeJA) or 10mM methyl salicylate (MeSA) spray.

S5

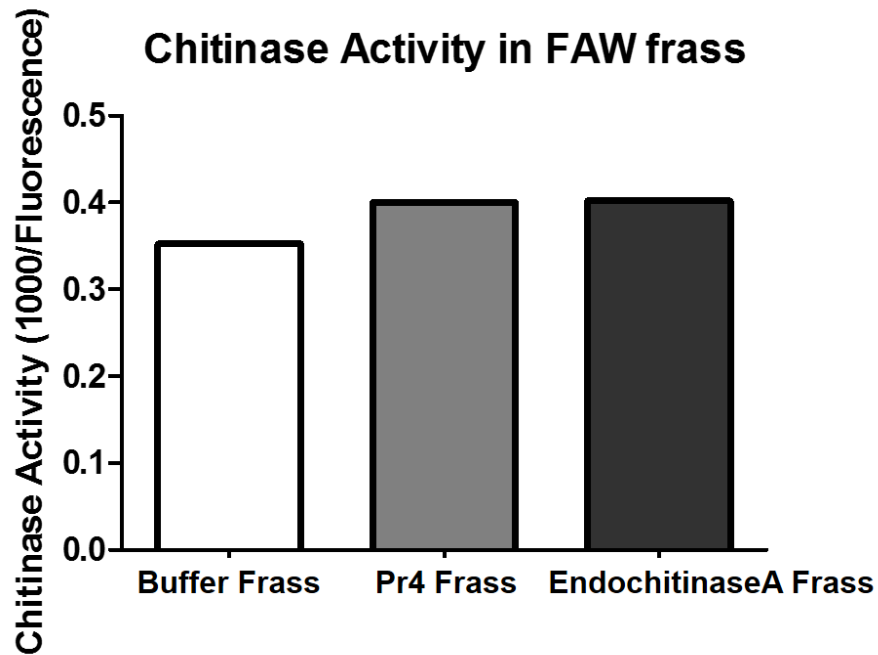


Figure S5: Chitinase activity in FAW frass fed on diet infused with recombinant Pr4, Endochitinase A or buffer.

Table S1: List of primers.

Name	Forward	Reverse	NCBI accession
Pr4 cloning	CACCCAGAACTGCGGGTGCGC	GCAGGTGAGGTTGTTGCCCGGGT	NP_001150754.1
EndochitinaseA cloning	CACCCAGAACTGCGGCTGCCA	GCAAGTGAGGTTGGGCCCTGGG	NP_001158904.1
Pr4 quantitative PCR	GCCAACCACGAGACCATAAAG	CACGGCCACTGCGTGTT	NP_001150754.1
Endochitinase A quantitative PCR	CAAGACGGCGCTCTGGTT	AAGCCCTGCGGCATCA	NP_001158904.1