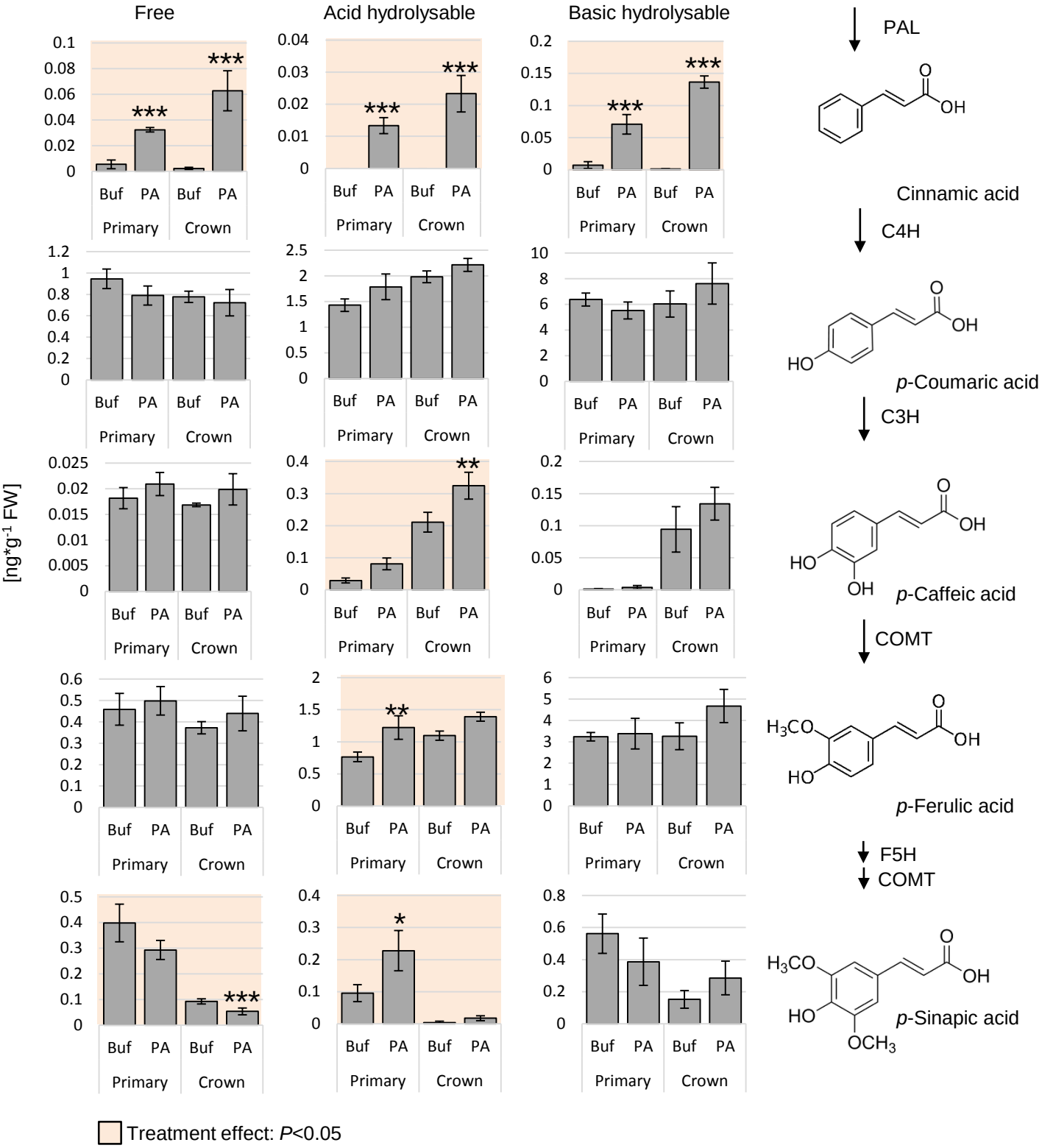

Fig. S1: *Cinnamate 4-hydroxylase inhibition alters the accumulation of soluble free and conjugated phenolic acid in the roots.* Average concentrations of different phenolic acids in buffer treated roots (Buf) and piperonylic acid treated, C4H inhibited roots (PA) are shown for crown and primary roots (± SE). Shading indicates a significant overall treatment effect determined by analysis of variance ($p<0.05$). Stars indicate significant pairwise differences between treatments within root types (Holm-Sidak post-hoc tests: *$p<0.05$, **$p<0.01$, ***$p<0.001$).

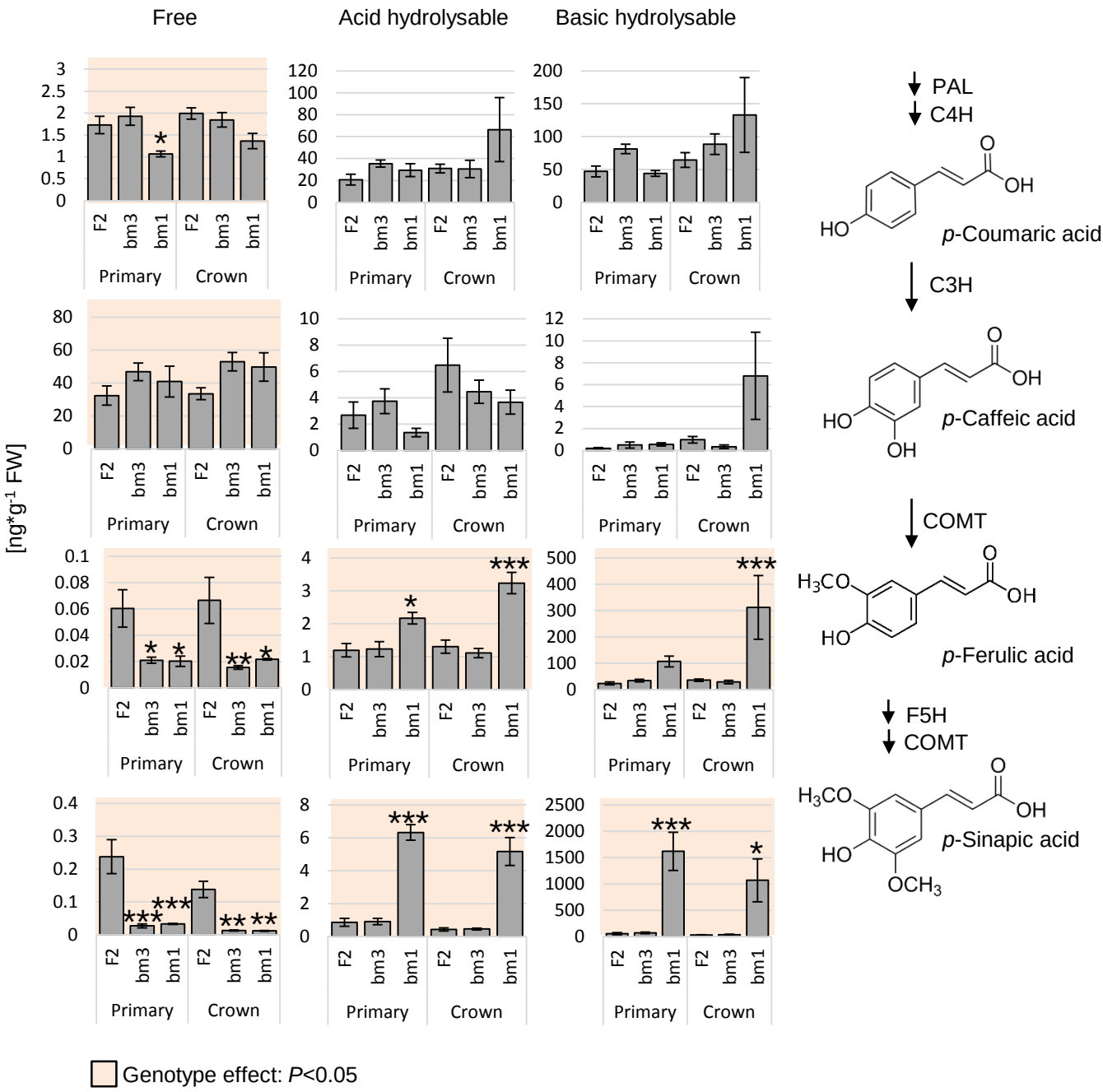

Fig. S2: *Genetic modification of the phenylpropanoid pathway alters the accumulation of soluble free and conjugated phenolic acid in the roots.* Average concentrations of different phenolic acids wild type (F2), bm1 and bm3 mutants are shown for crown and primary roots (± SE). Shading indicates a significant overall treatment effect determined by analysis of variance ($p<0.05$). Stars indicate significant pairwise differences between treatments within root types (Holm-Sidak post-hoc tests: *$p<0.05$, **$p<0.01$, ***$p<0.001$).

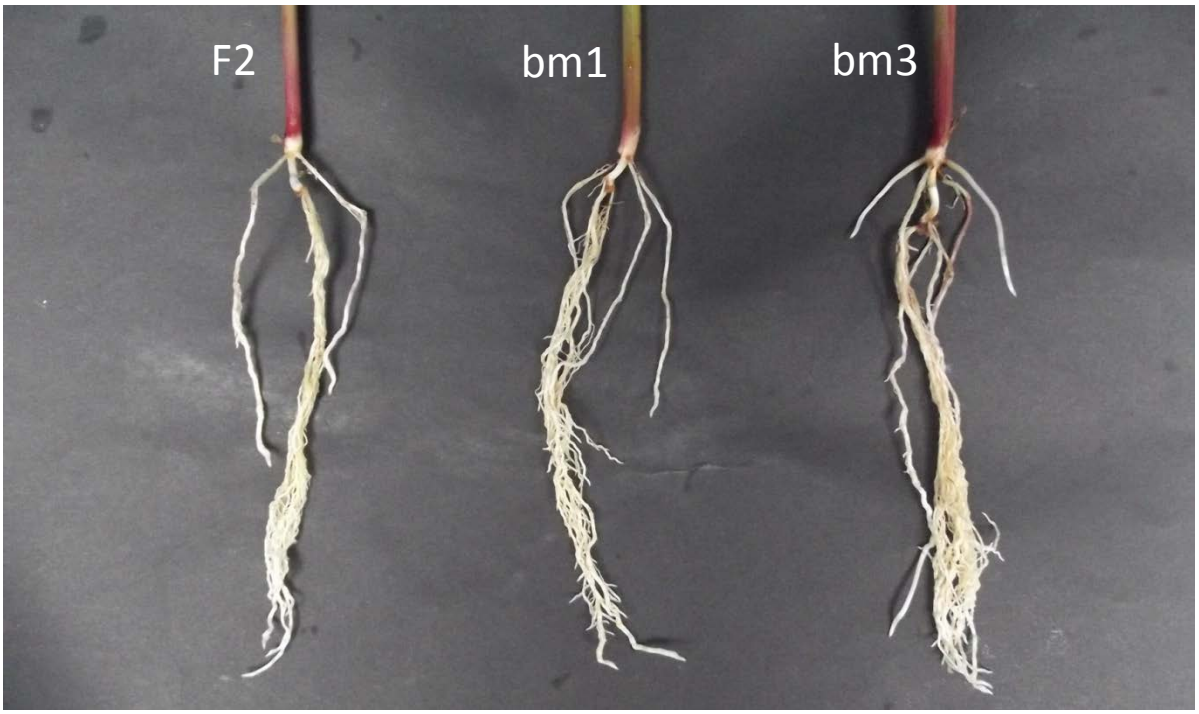

Fig. S3: *Genetic modification of the phenylpropanoid pathway does not alter root architecture of maize seedlings.* Pictures of wild type (F2), bm1 and bm3 roots of 12-day-old maize seedlings are shown.

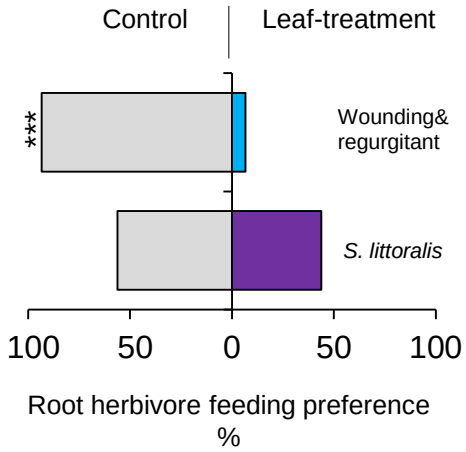

Fig. S4: *The bm1-dependent preference pattern of D. virgifera differs between S. littoralis infested and artificially elicited plants.* The preference for roots of leaf-induced bm1 mutant plants is shown. Stars indicate significant differences between treatments (*p<0.05, **p<0.01, ***p<0.001).

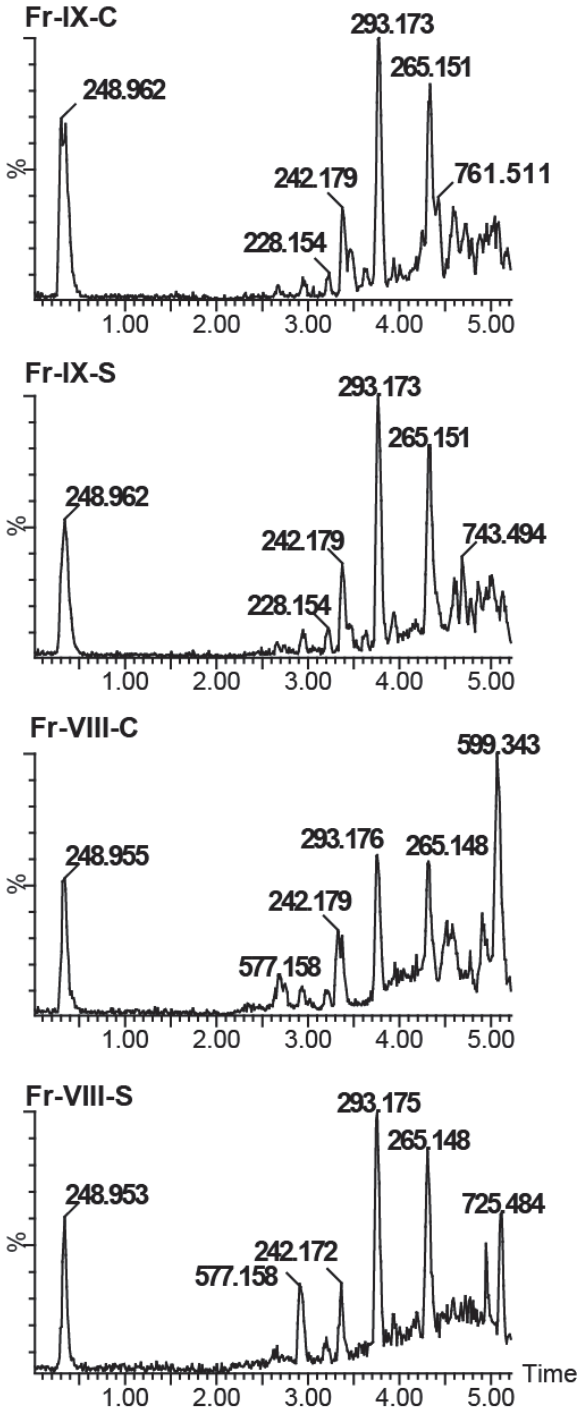

Fig. S5: *Metabolomic fingerprints of active root fractions.* LC-TOFMS chromatograms in ESI- of fraction VIII and IX from roots of control (C) and *S. littoralis* infested plants (S). Each chromatogram was blank-subtracted and normalized to 1000 counts. Peak extraction followed by univariate data analysis did not reveal any clear differences in ESI- or ESI+ modes.

Table S1. *Multiple reaction monitoring parameters for phenolic acid analysis*. Q1: Parent ion → Q3: product ion: mass to charge ratio [m/z]. ID: compound name; DP: Declustering potential; CE: Collision energy.

Q1 mass (Dalton)	**Q3 mass (Dalton)**	**ID**	**DP (Volts)**	**CE (Volts)**
147	102.8	Cinnamic acid	-65	-16
163	118.9	Coumaric acid	-60	-20
179	134.9	Caffeic acid	-55	-22
193.1	133.9	Ferulic acid	-75	-22
223	149	Sinapic acid	-65	-26