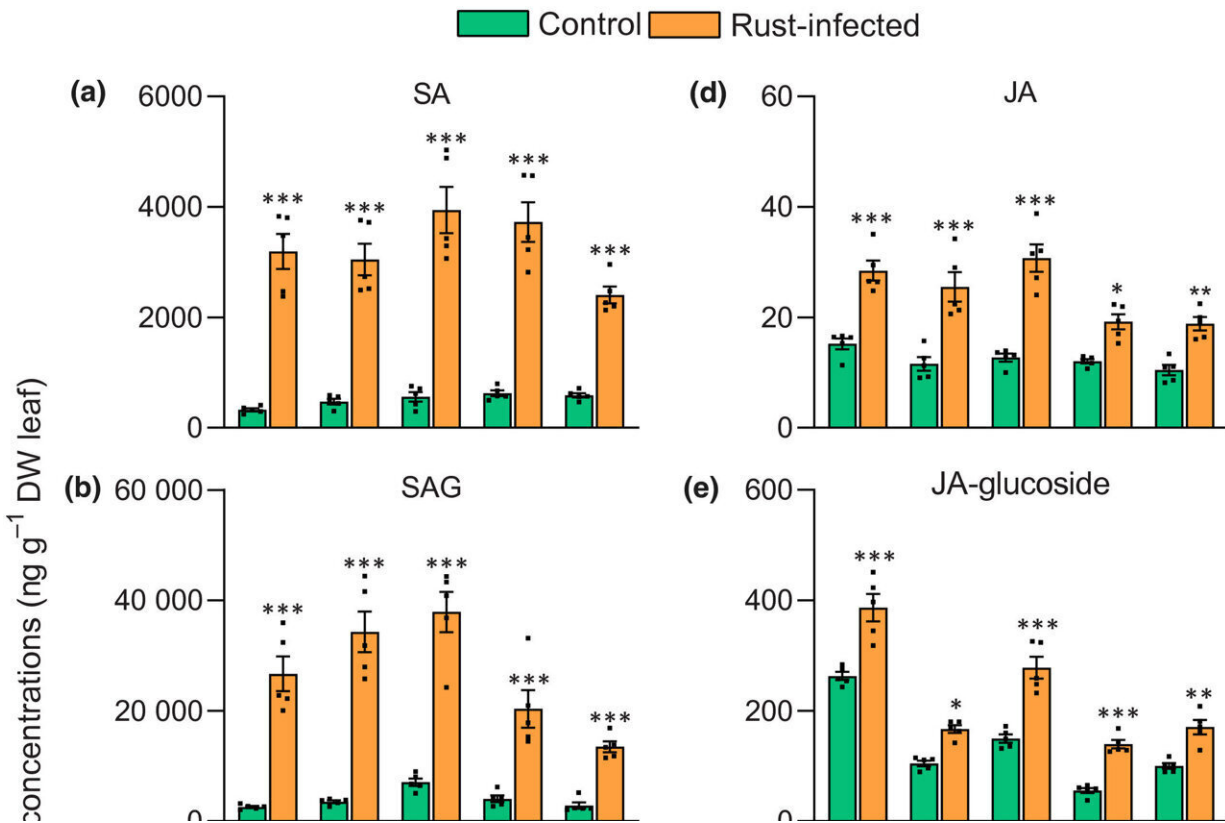


In poplars, two plant hormones boost each other in defense against pathogenic fungi

May 3 2022



Accumulation of salicylic acid (SA) and jasmonates in poplar after infection with a virulent rust fungus, *Melampsora larici-populina*. (a, b) Concentrations of SA and its glucoside (SAG) in poplar leaves with and without rust infection. (c–f) Jasmonate content in poplar leaves with and without rust infection. Young trees belonging to five different poplar genotypes with varying resistance levels were grown outdoors in pots. NP1 is highly susceptible, Leip and Dorn4 are moderately susceptible, and Kew and Bla are resistant to rust. Representative photographs of rust-infected poplar leaves below the graphs show the degree of

rust resistance (for quantification of resistance, please refer to Ullah et al., 2017). Leaf samples were collected from both rust-infected and the corresponding control trees at 7 d after inoculation, and hormones were quantified using a liquid chromatography–tandem mass spectrometry (LC-MS/MS) system. Data were analysed using a two-way ANOVA, followed by Tukey’s multiple comparison test with a 95% confidence interval. Statistical details of a two-way ANOVA for the levels of hormone metabolites are provided in the supplemental information (Supporting Information Table S12). Asterisks (*, P

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