

Title Effect of foliar salicylic acid and methyl jasmonate applications on protection against pill-bugs in lettuce plants (*Lactuca sativa*)

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Abstract

The effects were examined of plant-response signaling compounds, salicylic acid (SA) and methyl jasmonate (MeJA), on resistance to pill-bugs (*Armadillidium vulgare*) attack in lettuce plants. Foliar SA and MeJA applications were made at weekly intervals from the emergence of the plant until one week before harvesting. SA and MeJA induced detectable levels of hydrogen peroxide (H₂O₂) at least during 5 days post-application in these plants throughout their cultivation. On the whole, SA and MeJA in the concentrations and application scheme evaluated in this research did not significantly influence the dry and fresh weight matter of plants, or the chlorophyll and nitrate contents. In addition, both signal elicitors significantly diminished lettuce mortality due to pill-bugs, which was positively correlated with phenolics and flavonoids contents. Our results suggest that SA and MeJA, especially in low concentrations, should be further evaluated in lettuce production and priming resistance.

<http://www.springerlink.com/content/3012520515n06077/fulltext.pdf>