

Variability in Grain Aphid (Homoptera: Aphididae) Performance and Aphid-Induced Phytochemical Responses in Wheat

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Aphid genotype has been shown to be a source of variability in the induction of phytochemical responses in wheat after aphid infestation as well as in their performance on wheat lines. Two clones of the aphid *Sitobion avenae* (F.) that differed markedly in their ability to thrive in wheat, *Triticum aestivum* L., lines were used to evaluate aphid performance and the phytochemical responses induced by aphid infestation on cultivated and wild wheat. Results showed that differences in aphid performance were not related to processes that trigger phytochemical induction. The magnitude of the induction was not affected by either aphid genotype or wheat line for both wild and cultivated wheat. However, the experiments on cultivated wheat showed a significant statistical interaction of effects (aphid genotype, wheat line) with regard to the magnitude of induction. Because the results from particular aphid-plant genotype combinations could not be extrapolated to other combinations, it is suggested