

Host plant and natural enemy impact on cereal aphid competition in a seasonal environment

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Competition between phytophagous insects could be mediated by differential impact of natural enemies or by induced changes in host plant quality. The interaction between the aphids *Sipha flava* and *Rhopalosiphum maidis* on the shared host plant, *Sorghum halepense*, was evaluated during the fall and spring seasons in the presence or absence of natural enemies in a garden experiment. During the fall, *S. flava* was negatively affected by *R. maidis* in all treatments. However, during the spring season, *S. flava* was not affected by *R. maidis* when natural enemies were excluded, and positively affected by *R. maidis* with natural enemies present. *Rhopalosiphum maidis* was negatively affected by *S. flava* during the fall and spring seasons under all treatments. Laboratory experiments demonstrated that changes in host plant quality induced by *S. flava* attack and the presence of the parasitoid *Lysiphlebus testaceipes* negatively affected *R. maidis*, but not *S. flava*. Under abiotic conditions simulating fal