

Comparison of the effect of hydroxamic acids from wheat on five species of cereal aphids

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Feeding behaviour of five species of cereal aphids in wheat seedlings differing in hydroxamic acid (Hx) levels, was monitored via electrical penetration graphs (EPG). Aphid species could be grouped as sensitive to the feeding deterrent effect of Hx in the seedlings (*Rhopalosiphum padi*, *Schizaphis graminum*, *Sitobion avenae*, and *Metopolophium dirhodum*) or insensitive to them (*Rhopalosiphum maidis*). However, when feeding behaviour was studied in artificial diets containing Hx, all species were equally sensitive to Hx. The behaviour of *R. maidis* was further compared with that of *R. padi* through detailed EPG analysis. It was found that the insensitivity of *R. maidis* to Hx in seedlings may be due to a feeding strategy avoiding contact with the compounds by decreasing the number of cellular punctures in live tissues other than sieve elements during its way to the phloem. 1995 The Netherlands Entomological Society