

Behavioural differences during host selection between alate virginoparae of generalist and tobacco-specialist *Myzus persicae*

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Host plant selection and acceptance by aphids involves four consecutive steps: (1) prealighting behaviour, (2) leaf surface exploration and probing of subepidermal tissues, (3) deep probing of plant tissues, and (4) evaluation of the phloem sap. Host specialisation in aphids may involve not only different performances on potential hosts, but also different strategies for host selection and acceptance. *Myzus persicae* s.s. (Sulzer) (Homoptera: Aphididae) is one of the most polyphagous aphid species, although a tobacco-adapted subspecies, *M. persicae nicotianae*, has been described. These two taxa constitute a good system for studying the effect of host range on host selection strategies. We studied the first two steps in the host selection process by alate virginoparae of *M. persicae* s.s. and *M. persicae nicotianae* on host and non-host plants, using three types of behavioural assays: wind tunnel, olfactometry, and video-recording. Alate virginoparae of *M. persicae nicotianae* recognised an