PARTICULARITIES AND VARIABILITY ON MEALYBUG PROBING BEHAVIOUR

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Stylet insertion seems to be crucial to understand sucking-insect plant interactions. Preliminary tests showed great variability when monitoring mealybugs specially those events related to phloem. Thus, long recording were necessary (at least 16 hours) to obtain as different probing phases. So, the mealybug probing behaviour was studied by means of the Electrical Penetration Graphs (EPG) in several insect/plant combinations to identify particularities and variability. The results showed that mostly cell punctures shows only two phases, equivalent to phases II-1 and II-2 of aphids, which means that cell sap ingestion would be absent or highly reduced. Whether its absence is responsible for failing non-persistent virus (NPV) transmission is an open question since mealybugs have not been reported as NPV vectors**.** Waveform "N", a new described waveform and apparently restricted to mealybugs, is a highly variable pattern, recorded at extracell level with stylets located in mesophyll tissue and occasionally can last for several hours. E_1 duration is rather short (few minutes) and frequently shows weak peaks, resulting in an ambiguous shift to E_2 pattern. Mealybug probing behaviour presented also high variability depending of the mealybug/plant combination. For example, phloem phase is reached earlier and last longer in *Planococcus citri* on coffee and *Phenacoccus solenopsis* on Spanish needle, as compared with *Pl. citri* on citrus and *Dysmicoccus brevipes* on cell cultured pineapple plants.

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