



POSTER



D3375: Feeding behavior of *Dichelops furcatus* F. (Heteroptera: Pentatomidae) on spring cereals and on soybean plants determined by EPG

Tuesday, November 19, 2019

09:00 AM - 06:30 PM

📍 America's Center - Exhibit Hall 1 & 2

The feeding behavior of *Dichelops furcatus* F. adult females (15-20 d-old) was recorded for 15 hours in the following food sources: soybean pod (R5 stage) (preferred food) and immature ear head (R11.1 stage) of wheat, oat, barley, and rye using the electropenetrography (EPG) technique. A voltage of 50 mV alternating current and an input impedance of 10^7 Ohms was applied. The waveforms analyzed were: Np (non-feeding activities), Df1 (stylet penetration into the plant tissue), Df2 (xylem sap ingestion) and Df4 (seed endosperm activities). For each waveform, the following EPG parameters were determined: TWD (total waveform duration), NWEI (number of waveform events per insect), WDEI (waveform duration per event per insect), and WDI (waveform duration per insect). On all foods, the bugs spent most of the time (>66%) on non-feeding activities. On soybean pod, bugs were most active (~34% of the time on feeding activities). On cereals, bugs were more active on oat (~27%), followed by barley and wheat. On rye, occurred least activity (13%). The Np event duration (WDEI) was significantly shorter on soybean pod (<60 min). The duration per event and duration per insect of Df1 waveform were, in general, greater on soybean. Df2 wave did not differ among foods for any EPG parameters. For Df4 wave, significant differences were observed among foods for NWEI and WDEI parameters; the number of events was significantly higher on soybean (4.8 events/insect), but the duration of each event was shorter (~ 27 min/event).

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