## Abstract

Zebra chip disease (ZC) in potato is associated with “*Candidatus* Liberibacter solanacearum” (Lso), which is transmitted by the potato psyllid *Bactericera cockerelli* (Šulc) (Hemiptera: Triozidae). ZC can cause large economic losses when disease incidence is high. ZC management is currently focused on managing the psyllid vector with insecticides. Host plant resistance to ZC has been pursued as a possible means of management, but no commercial potato variety has been found to resist the ZC pathogen. Three Lso-resistant breeding clones derived from *Solanum chacoense*, L. were selected to screen for antibiotic and antixenotic effects and fecundity trials: A07781-10LB (10LB), A07781-3LB (3LB) and A07781-4LB (4LB). ‘Russet Burbank’ (*Solanum tuberosum* L.) was used as a susceptible control. We observed four classes of behavior in no-choice assays: probing/feeding, walking, cleaning, and leaving the leaf. Probing and walking frequency were highest on Russet Burbank. Female psyllids in particular showed higher walking frequency on Russet Burbank relative to females on 3LB germplasm and females and males on 10LB germplasm. Duration of behaviors was not significant. Female *B. cockerelli* laid significantly more eggs on Russet Burbank and exhibited higher egg fertility. Our results suggest that A07781-10LB, A07781-3LB, and A07781-4LB may have antibiotic effects on eggs.