

Section IV: Potato Pests

**TWO YEARS OF EVALUATION OF THE POTATO PSYLLID AND ZEBRA CHIP DISEASE IN THE LOWER COLUMBIA BASIN**

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The Columbia Basin of Washington-Oregon is one of the most important potato production areas in the PNW with an estimated 170,000 acres dedicated to potato production mainly under irrigated areas. The potato psyllids, *Bactericera cockerelli* (Sulc) is a common pest of potatoes known to transmit the bacterium *Candidatus Liberibacter solanacearum*, the causal agent of the Zebra Chip (ZC) disease. Following the first report of ZC in 2011, an in-season monitoring program was conducted in 2012 and 2013 in order to determine the population fluctuation of the potato psyllids in the region. Specific objectives were associated with evaluating the number of psyllids based of trap location, comparing two sampling techniques and evaluating ZC incidence. Overall, potato psyllid adults' numbers were low throughout the season in 2012 and 2013 and increased towards the end (mid to end August) (Fig. 1). Less than 12% were Lso positive in 2012, and 1% in 2013. No 'edge effect' was detected in both years. Two different trapping techniques were used: inverted leaf blower and sticky cards. The number of adults captured using sticky traps was comparable with adults captured using an 'inverted leaf blower'. In addition, percent ZC infected tubers was higher in 2012 compared to 2013.

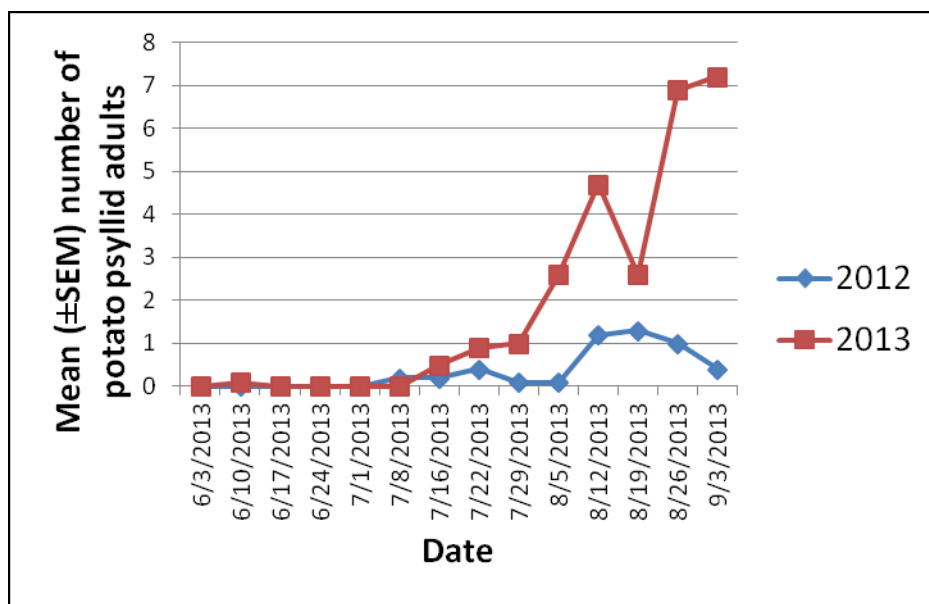


Fig 1. Mean number of potato psyllid adults captured in yellow sticky traps in 2012 and 2013