WENNINGER, ERIK J.* and BECK AKHIWU, University of Idaho, Kimberly Research & Extension Center, 3806 N 3600 E, Kimberly, ID 83341.

Mass trapping of adult sugar beet root maggot flies using pheromone-lure-baited bucket traps.

Larval feeding by the sugar beet root maggot (*Tetanops myopaeformis*) reduces yield in key sugar beet growing regions of North America. Management is heavily reliant on broad-spectrum insecticides that face growing threats from regulatory restrictions, underscoring the need to develop alternative management strategies. We first developed a new trap that optimized attraction of adult flies to visual and chemical cues, featuring a long-lasting pheromone lure and high capture capacity. Black bucket traps baited with polyethylene pheromone lures captured large numbers of female flies with little maintenance required. Next, field plot experiments were conducted in Idaho at four sites in 2023 and two sites in 2024. The study compared yield responses in a mass trapping treatment (i.e., plots surrounded by bucket traps) versus aldicarb-treated and non-treated check plots. Mass trapping and aldicarb treatments consistently performed similarly, both showing higher clean yield and estimated recoverable sucrose across most site-years of the study. Future studies should evaluate this approach at the whole field scale as well as determine the minimum number of traps required to achieve successful control. These findings demonstrate the potential for mass trapping of sugar beet root maggot as a new tool for management of this important pest of sugar beet.