

Section I
Surveys of Invasive & Emerging Pests

ISDA 2006 POTATO TUBERWORM (*Phthorimeae operculella*) (PTW) DETECTION SURVEY

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During the 2006 growing season, ISDA deployed 468 PTW traps in 25 potato producing counties. ISDA used Trece Pherocon VI traps baited with Trece International PTW pheromone lures. Traps were placed on the edge of potato fields at about canopy height. In counties with positive trap records from the 2005 survey, traps were deployed in mid May. These counties include Canyon, Payette, and Elmore counties. In counties that had negative records for PTW catches during the 2005 survey, ISDA deployed traps during the first week of August. This included 22 potato producing counties in south central and eastern Idaho.

The first, single, PTW male was captured in a trap east of Parma Idaho, Canyon County on August 7. Subsequent positive traps were recorded on 9/26, 10/10, 10/12. The last male captured was on October 24. Traps were removed and the survey ended during the week of November 5. A total of six male PTW moths were captured at four trap sites, all located within a 5 mile radius of Parma, Idaho (Canyon County). This was a decline in moth captures from the 2005 season which totaled 19 moths in 14 traps sites located in three counties (Canyon Payette, and Elmore) Traps have also been deployed in a few private and commercial storage facilities in SW Idaho. To date no positive reports or PTW trap catches have been reported from traps located near or in potato storage facilities.

ISDA trained their Fresh Fruit and Vegetable Division (FF&V) inspectors to look for PTW damage as part of the potato grading and quality inspection program. Also, USDA, Idaho Agricultural Statistical Service (IASS) conducts a yield survey covering all potato production areas of the state. Fifteen pound sample of tubers were dug from a statistical sample of all potato fields within the state. The sample size was 285 samples from over 20 potato production counties. IASS staff involved with this yield survey received special training, conducted by ISDA, on recognizing PTW tuber damage signs. To date no live PTW larvae or suspected PTW damaged tubers have been found in Idaho base on FF&V as well IASS tuber samples and observations.

University of Idaho, crop protection entomologists, cooperating with ISDA developed PTW Recommended Management Practices (RMP's) document with a pest management flow chart. The pest management flow chart relating moth trap numbers and situations with specific RMP's. RMP's included insecticide treatments and cultural practices. Since PTW positive trap levels were so low and geographical isolated, the effectiveness of RMP's in reducing infestation levels and spread was not fully tested.