

Thresholds, Monitoring, and Sampling

Plum curculio monitoring in the Midwest: Implications for the Pacific Northwest

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Abstract: Trap types were evaluated for monitoring plum curculio in both apple and cherry research plots during the 2002 growing season. Trap types included screen, intercept, standard pyramid, plastic pyramid, and kill traps. All trap types were baited with aggregation pheromone, plum essence, and enhanced volatile blend lures. Traps were deployed during the second week of April and were checked once or twice weekly through fall. Plastic pyramid, screen, and wood pyramid traps were the first to capture plum curculio [DD(50) = 100]. Plastic pyramids traps, enhanced with white borders, capture more plum curculio than any other trap type evaluated. When averaged over habitat, plastic pyramid traps capture 3-fold more plum curculio than the next best trap. In the woods, plastic pyramid traps capture 10-fold more plum curculio than any other trap type. On the other hand, plastic pyramid traps do not capture statistically more plum curculio than screen, wood pyramid and unbaited plastic pyramids in the border and orchard. The orchard border, adjacent to plum curculio overwintering habitats, is the best location and the plastic pyramid trap is the best trap for capturing high numbers of plum curculio. However, plastic pyramid traps are not compatible with many tree fruit orchard practices. In addition, growers and scouts have preferred screen traps over pyramid traps.