

Title Laboratory evaluation of traps for the detection of beetle pests in bulk grain
Author M.E. Wakefield and P.M. Cogan
Citation Journal of Stored Products Research, Volume 43, Issue 4, 2007, Pages 546-549
Keywords Probe; Pitfall; PC traps; Trapping; Grain; Storage beetles

Abstract

Traps have been evaluated against three species of storage beetle in plastic bins containing 150 kg wheat. The bins were used to generate data for a comparison of the trapping effectiveness of the pitfall cone (PC), pitfall beaker and insect probe traps. The data produced reflect those obtained from field studies and illustrate the advantages of this method over less rigorously controlled field trials. The PC trap, a single type developed to replace both of the previously recommended traps, buried to a 5 cm depth in grain, was as effective as the insect probe for detecting *Cryptolestes ferrugineus*. The buried PC trap was also as effective as the insect probe trap for trapping *Oryzaephilus surinamensis* below the grain surface, and the PC trap on the surface was as effective as the pitfall beaker trap. The PC trap below the surface was more effective for trapping *Sitophilus granarius* than the insect probe trap. This pilot-scale method is a cost-effective alternative to field-scale trials and could be used to investigate various factors influencing trap catch.