

Title Insect monitoring in a paddy rice storage facility.
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Abstract

Insect monitoring in rice storage facilities is essential for the adoption of integrated pest management control measures. With this purpose, 19 baited cage traps were installed outside silos in Massaranduba, Santa Catarina, Brazil. The bait was a mixture of wheat germ, maize grits, whole maize, and rice kernels. Twelve probe traps were placed in a 1875-tonne silo filled with paddy rice, and insect captures compared with those in nearby cage traps. Every 15 days, the bait and the probe traps were removed for insect counting and identification. The cage traps captured 45 955 insects in two years, including *Sitophilus oryzae* (76.4%), *Rhyzopertha dominica* (8.5%), *Cryptolestes ferrugineus* (5%), *Oryzaephilus surinamensis* (2.3%) and other insect species (7.6%). The largest insect infestations were detected in the receiving areas for paddy rice, around the grain pits, and around and below the pre-cleaning machines. The probe traps detected a high insect infestation in May 1999, and this peak was also registered in the cage trap outside the silo. By this time, the silos were being filled and cross-infestation from the field may explain the high insect captures in most cages. Insect monitoring using both cage and probe traps allows the early detection of infestations, giving time for decisions about adequate handling and control strategies.