

Title Investigation of the use of ozone fumigation to control several species of stored grain insects.
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Citation Advances in stored product protection. Proceedings of the 8th International Working Conference on Stored Product Protection, York, UK, 22-26 July 2002 (2003); 846-851

Abstract

The efficacy of ozone as a fumigant was evaluated against various primary grain insects under laboratory conditions. Ozone was effective for the control of phosphine-susceptible strains of *Sitophilus zeamais*, *Rhyzopertha dominica* and *Tribolium castaneum*, and phosphine-resistant strains of *S. oryzae*, *R. dominica*, and *T. castaneum* on rice, wheat and maize. Ozone killed all the adults of the evaluated species in 2 days at 120 ppm, in 4-6 days at 100 ppm, in 6-7 days at 70 ppm and in 12 days at 15-20 ppm. Similar results were obtained in an experiment conducted in maize and rice warehouses at Sichuan province, China. Ozone appears to have some potential for use in controlling insects in stored products.