

## **SOME ISSUES TO CONSIDER WHEN JUDGING EFFECTIVENESS OF STORED-PRODUCT INSECT CONTROL MEASURES IN MILLS**

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### **ABSTRACT**

**(Full paper not available)**

Fumigation, heat treatments, use of residual sprays, sanitation, and stock rotation are examples of some control measures used to suppress populations of stored product insects associated with flour and feed mills. In the United States, many mills hire an outside pest control service company to apply pesticides or perform a heat treatment. Generally, caged insects or traps are used by these companies or mill managers to verify treatment effectiveness. While the mortality of caged insects may satisfy the mill managers, it does not really indicate the degree and duration of suppression of insect species occurring in the mills. An alternative approach involves the use of traps to determine species and numbers of insects captured before and after a control measure is instituted. Our research, and that of others, has shown that traps are unreliable for judging treatment effectiveness. A more practical approach involves a thorough understanding of insect population changes within and outside mills to accurately gauge effectiveness of any pest control measure. We examined important issues surrounding treatment effectiveness and offers suggestions for improving our ability to gauge effectiveness of pest management methods in mills.