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Research and application progress of controlling stored-grain insects by sulfuryl fluoride

Dandan Li[1*], Pengfei Li[2], Xiaoping Yan[1], Daolin Guo[1]

[1]Sinograin Chengdu Grain Storage Research Institute, Chengdu, 610091, China.
[2]Academy of National Food and Strategic Reserves Administration, Beijing, 100037, China.
*Corresponding author's email: 284950786@qq.com

ABSTRACT

The paper highlighted the problems of insect resistance and shortage of aluminum phosphide for controlling stored-grain insects. Sulfuryl fluoride was identified as an alternative fumigant and its physical and chemical properties were analyzed. Also, insecticidal mechanism, control effect, residue and degradation, pesticide registration, fumigation technique, concentration detector, security, environmental protection, and mixture fumigation were discussed in the paper. Sulfuryl fluoride might become a common fumigant after elimination of methyl bromide, though there are some problems with its application, which was discussed in the paper.

Keywords: Sulfuryl fluoride, Fumigation, Stored-product insects