The use of *ACTELLIC* smoke generators to control a range of storage pests in grain and cereal stores

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Abstract

ACTELLIC Smoke Generators contain the active ingredient pirimiphos-methyl. Smoke generators are a highly effective method of delivering an active ingredient, as a smoke, into an enclosed space. The smoke is able to penetrate inaccessible areas, and harbourages to give effective control of pests and diseases. ACTELLIC SG20 is used worldwide, and recommended to control a wide range of acari and insects in empty grain and cereal stores. Structures used to store grain and cereals will still house pests even when empty, and these pests will readily infest subsequent harvests of grain or cereal when placed in storage. Cleaning and treating the fabric of empty grain and cereal stores is an essential process to protect valuable crops from spoilage. With the prospect of increasing prices it is important that grain and cereals are kept in peak condition, free from pests and diseases. Storage pests cause direct damage to the grain and cereals and create conditions which promote fungal growth. Any loss of quality in store will have financial impact. Studies show that exposure to the ACTELLIC SG20 smoke generator is highly effective against *Tribolium castaneum*, *Oryzaephilus surinamensis*, *Ephestia kuehniella*, *Acarus siro*, *Sitophilus granarius* and *Rhyzopertha dominica*, resulting in over 88% of the insects/mites becoming affected (knocked down or dead) at 25 hours following exposure. In comparison, untreated control mortality was very low in all species throughout the 25 hour experimental period.

Keywords: Actellic, stored product pests, grainstore