# DDVP…An Effective Pest Management Tool

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DDVP, under the trademark Vapona® was first registered for pesticide use in 1960 by Shell Corporation, and was followed by the Shell No-Pest Strip in 1963. Over the years, this organophosphate pesticide has been used in agriculture, structural pest control, and in food processing environments, and has been considered a valuable tool for managing stored product pests. In 2006, a DDVP Interim Re-registration Eligibility Decision (IRED) was issued due to concerns over carcinogenic risks, as well as cholinesterase inhibition. Since then EPA has changed their assessment of some DDVP-associated risks and modified the terms and conditions of DDVP registrations accordingly. ULV applications in food processing/commodity storage has remained as a use that is beneficial for the stored food industry.

Since this product has undergone close scrutiny, it is imperative that industry users apply the product in strict compliance with the label and all of the safety recommendations stated on the label. In order to apply DDVP safely and effectively, intense stewardship training of the product should be adhered to, and proper and effective applications should be strived for at all times. This fogging insecticide is the most effective material available for this type of application, and is a critical component for future IPM programs especially considering the phase-out of methyl bromide and the void that is left with this fumigant's absence.

DDVP is one of the important components of an IPM program where food facilities are trying to minimize their fumigant use, and are considering all other available options such as increasing sanitation procedures, monitoring stored product pests with pheromones, using effective residual insecticide sprays and insect growth regulators. When a DDVP application is performed according to Best Management Practices (Cardinal Professional Products, 2013), you can expect to receive 100% control of the exposed adult stored product insects in the treated area. This has been confirmed with multiple applications in various California locations over the last four months by using adult insect bioassays (FogChek, LSB Products). These bioassays were placed in challenging areas within the treatment area, such as within stacks of pallets, or inside handling equipment, or behind and between palletized packaged food products. It has also been discovered that when applied using Cardinal Professional Products Card-O-Vap 8™ with carbon dioxide as a propellant, a dose of 0.5 grams per 1,000 cubic feet will control 100% of the bioassays, which is half of the minimum labeled rate.

If applications are performed using Card-O-Vap 8™ in combination with Best Management Practices, you may assume that every exposed adult insect in the treated area has been controlled, which will minimize the pest population immensely. DDVP has always been considered a valuable pest management tool, which has been validated by these recent trials.

References Cited

Hosoda et al. 2013. Best Management Practices For Applying Card-O-Vap 8™. Document submitted to the California Department of Pesticide Regulation

FogChek, LSB Products. Manhattan, KS