CYLINDERIZED DDVP – A METHYL BROMIDE ALTERNATIVE

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Dichlorvos insecticide has been registered since 1963 when Shell first marketed the "No Pest Strip". 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. Since the Global Food Safety Initiative (GFSI), and the recent Food Safety Modernization Act (FSMA), many food processing facilities have changed their pest management perspective to be proactive versus reactive, causing managers to review their pest management practices to focus more on sanitation, insect population monitoring and low-impact pesticide applications versus scheduling facility fumigations as they have in the past. ULV treatments, insect growth regulators, mating disruption pheromones (CIDETRAK®), and targeted residual insecticide or spot fumigant applications are now the primary focus for food facility managers.

DDVP has emerged as a primary tool for food facilities to consider using due to its cost-effectiveness, especially when used in the cylinderized form. Cardinal Professional Products received EPA approval for VAP-X™ in 2013, which utilizes an 8% dichlorvos formulation which is pressurized with liquid carbon dioxide in the field prior to application. The vaporization of carbon dioxide carries dichlorvos throughout the treatment area within minutes resulting in 100% control of Tribolium confusum adult bioassays placed prior to release of VAP-X™. Extensive field testing has shown that a dose of 0.5 grams/1,000 ft^3 (25% of the label maximum dose) is adequate for 100% control of all bioassays in all of the trials recently performed.

DDVP can be considered to be a methyl bromide alternative when used properly and effectively, and allows facilities more flexibility with production time constraints. It does not control all life stages of stored product insects, but when used in conjunction with many other low-impact tools, results can be very effective.