ProFume® GAS FUMIGANT: A METHYL BROMIDE ALTERNATIVE FOR US LOG EXPORTS TO CHINA

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After the international adoption of *The Montreal Protocol on Substances that Deplete the Ozone Layer*, the phase out of methyl bromide production and worldwide use was initiated. Despite the progress that has been made, USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) still relies heavily on methyl bromide for mitigating the pest risks associated with imported and exported goods. In 2010, more than half a million pounds of methyl bromide were used in PPQ-supervised, port-of-entry fumigations on approximately 150 commodities from nearly 100 countries. Additionally, nearly 125,000 pounds were used to treat US exports in PPQ-supervised fumigations in 2010 (this figure does not include the methyl bromide used in State or County-supervised export fumigations). During the continuing phase out of methyl bromide, the Center for Plant Health Science and Technology (CPHST) is charged with identification, development, and validation of alternative treatments for these circumstances.

Recently, the Chinese Ministry of Agriculture announced that, in addition to methyl bromide and heat treatments, sulfuryl fluoride treatments are allowed for US log exports to China (5° C to 10° C, 104 g/m³ for 24 hours; 10° C or above, 80 g/m³ for 20 hours). ProFume® gas fumigant, a sulfuryl fluoride formulation manufactured by Dow AgroSciences, provides effective broad-spectrum control of stored product, structural, and wood pests. However, the current labeling for ProFume does not specifically cite non-edible agricultural commodities, such as logs, or use of quarantine/regulatory treatment schedules. Dow AgroSciences has obtained special local needs registrations [24(c)] for ProFume, describing these use patterns, in the states of Alabama, Maryland, Mississippi, New Jersey, North Carolina, South Carolina, and Virginia. Over the past two years, Dow AgroSciences and CPHST have worked to establish the operational parameters necessary for PPQ to supervise fumigations. In January 2012, PPQ approved the use of ProFume for PPQ-supervised indoor containerized fumigations of logs, and in August 2012, PPQ approved the use of ProFumE for PPQ-supervised outdoor containerized fumigations of logs. In the coming months, Dow AgroSciences and PPQ will continue to work towards approving additional operational parameters for fumigation of log exports using ProFume.

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