The Commercialization of ProFume™ In California

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After a pesticide receives registration approval with USEPA, the registrant must submit the application for registration for each individual state. Compared to other states, California has been notorious for its thorough and lengthy approval process, which may take an additional year. ProFume™ was approved in May 2005, which proved to be very timely, for a large rice mill was waiting for it's entry into the California market. Even though methyl bromide is still available through "Critical Use Exemptions", many companies have been actively pursuing alternative products, and are welcoming new technology. In California, ProFume™ seems to be a logical and economical alternative for methyl bromide, especially since many of the research trials have been successfully performed with many of the California food processing companies.

In California, we have performed trial fumigations for eight years, and have created a history of Half-Loss Time measurements in many of the facilities. This has allowed for a thorough understanding on how ProFume™ acts within structures in relation to sealing techniques, weather conditions, and other fumigation parameters. By creating a history of a facility using monitoring information, a plan for subsequent fumigations can create substantial savings in fumigant, or can create a more efficient means for using ProFume™. The Fumiguide® software program has proven to be an excellent tool for analyzing fumigations, and provides the fumigator with a means to be assured that a successful fumigation will transpire. A concentration graph is generated in the program, which can be used as documentation of the gas concentration.

In the first three months of having ProFume™ available for use in California, we have successfully treated many facilities. Four large rice mills totaling over 7 million cubic feet, the Port of Sacramento grain elevator, a large nut processor and warehouse, and a large USDA quarantine fumigation have all been successfully fumigated with ProFume™. These fumigations have come with many challenges, and we learned how to quickly make important decisions based on our collective fumigation experience in order to provide an effective fumigation. If not for our extensive field knowledge, many of these treatments could have been failures. As with any fumigant, monitoring is extremely critical, and provides the fumigator with information on whether or not a successful fumigation is imminent. If the monitoring readings are unsatisfactory, the applicator can easily make changes in order to achieve the target C-T product. Some of the challenges we faced in our fumigations were: (1) Lack of electrical power to run re-circulation fans to create even distribution of ProFume™, (2) Strong winds affecting certain areas of the fumigation causing extensive gas loss, (3) Inconsistent Fumiscope® readings that were inexplicable, and (4) Complying with the California regulations for aeration of ProFume™ (a fifty foot high ventilation stack is required for aeration, which minimizes exposure to by-standers). In each case, we were able to formulate a plan to correct or create a solution to the problem, and achieve the target C-T.

We are very enthusiastic about the future of ProFume™. We have learned how to effectively use this new fumigant, and how it can be incorporated into the many, and diverse applications in California.