MONTANA STATE UNIVERSITY | EXTENSION

PESTICIDE NEWS

2017 Fumigation Training Tour for Fumigant Applicators across Montana (Friday 02/03/2017).

By Cecil Tharp, Pesticide Education Specialist

Applicators using aluminum or magnesium phosphide fumigants for managing rodents or insects should understand how to meet all product label requirements, including expanded requirements since 2010. The expanded EPA requirements resulted after two children died upon inhaling phosphine gas from an improper application of aluminum phosphide near their home to manage rodent populations in 2010.

This is not the first or last time fumigants have been connected to deaths across the US. Improper use of aluminum phosphide fumigants also resulted in the death of one South Dakota girl in 2000, sickening a family and killing their 2 year old girl in Lubbock, Texas in 2007, and recently (January, 2017) four children died and six were hospitalized after a similar suspected misapplication of this pesticide in Texas. All deaths were due to the misuse of this pesticide product as a result of not reading and following the pesticide product label.

It is important that individuals using aluminum or magnesium phosphide products understand how to manage pests safely and effectively by understanding the product label requirements. Since 2010, there are many restrictions that include: 1) prohibiting all uses of the product on single and multi-family residential properties, nursing homes, schools (except athletic fields), daycare facilities, and hospitals, 2) increase buffer zones to 100 feet for treatment around non-residential buildings that could be occupied by people or animals, and 3) completed fumigant management plan prior to the application.

Some examples of aluminum and magnesium phosphide products are:

*Phostoxin	*Fumi-cel
*Fumitoxin	*Magtoxin
*Phosfume	*Magnaphos
*Weevil-cide	

Applicators should ensure the safety of applicators and others by understanding all requirements on the product label. Some of these important requirements are listed below. This is only a guideline, applicators are urged to read and follow the entire pesticide product label prior to application.

All Aluminum and/or Magnesium Phosphide Fumigant Applications

• Prohibits all uses around residential areas, including single and multi-family residential properties, nursing homes, schools (except athletic fields), day care facilities, and hospitals.

• Buffer zones for treatment near non-residential buildings that may be occupied by people or animals is 100 ft.

• Respiratory protection must be worn when concentration levels of phosphine are unknown or when concentrations exceed the allowable limits. (>0.3 ppm applicators must wear a full face piece respirator with a phosphine gas canister or if > 15 ppm must wear self-contained breathing apparatus (SCUBA).

• Warning signs (placards) must be posted in fumigated areas that include a 24-hour emergency number, DANGER / PELIGRO, and that remain in place for 48 hours.

• Fumigation Management Plans must be written before all applications of phosphine products, including all burrowing pest fumigations. A Fumigant Management Plan must be created to cover application, exposure period, aeration time, and disposal of the fumigant so as to keep to a minimum any human exposure to phosphine and to help assure adequate control of the insect or burrowing rodent pest.

Rodent Fumigations

• Rodent fumigations must occur only on burrowing pests in agricultural areas, orchards, non-crop areas (such as pasture and rangeland), golf courses, athletic fields, parks and recreational areas, cemeteries, airports, rights-of-way, earthen dams, and other non-residential institutional or industrial sites.

• Maximum dosage for rodent burrows is 10-20 pellets per burrow or 2-4 tablets per burrow.

• For burrowing pest applications, products must not be applied in a burrow system that is within 100 feet of a building that is or may be occupied by people or domestic animals. This buffer zone for treatment around non-residential buildings that could be occupied by people or animals has been increased from 15 feet to 100 feet.

Structural Fumigations

• Transporting containers or vehicles under fumigation over public roads is prohibited.

• For stationary structures, phosphine readings must be conducted in order to characterize the application and determine the fumigator's exposure.

• All phosphine concentration readings must be documented.

• If monitoring equipment is not available, an approved canister respirator must be worn during application from within an enclosed area.

• All entrances to the fumigated structure must be placarded.

• Monitoring must be conducted during application to determine the need for respiratory protection.

Certified pesticide applicators may attend fumigant training sessions offered by the MSU Pesticide Education Program (PEP) on February 21st in Malta, February 22nd in Lewistown or February 23rd in Choteau. Tim Larson (Degesch Corporation) will be delivering information on structural fumigations, Stephen Vantassel (Montana Department of Agriculture Vertebrate Pest Specialist) will present how to properly use fumigants for rodent applications and Dr. Cecil Tharp (MSU Pesticide Education Specialist) will cover fumigant safety and how to protect yourself and others. Applicators can view the complete agenda by navigating to the MSU PEP website at www.pesticides.montana.edu and selecting 'Private Applicator Program' then 'Recertification Training Opportunities'. Attendees will be awarded continuing education credits for the following categories: Private Applicator (6 credits), Dealer (6 credits), Seed Treatment (6 credits), Demo & Research (6 credits), Ag. Plant Pest (4 credits), Ag. Vertebrate Pest (2 credits), and Rodent (2 credits).

FOR FURTHER INFORMATION: Agenda is at http://www.pesticides.montana.edu/pat/education/index.html by selecting the location of interest. Interested individuals are urged to register online as limited space is available. If you have questions regarding this article contact the MSU Pesticide Education program (Dr. Cecil Tharp, Pesticide Education Specialist, 406-994-5067, ctharp@montana.edu).