Proceedings of the Fifth International Conference on Urban Pests
Chow-Yang Lee and William H. Robinson (editors), 2005.
Printed by Perniagaan Ph'ng @ P&Y Design Network, Malaysia.

PESTICIDE REGULATION BY STATE GOVERNMENT AGENCIES IN THE UNITED STATES

GEORGE N. SAXTON
Office of Indiana State Chemist, Purdue University,175 S. University St.,West Lafayette, Indiana USA 47907-2063

Abstract Pesticides and their use are regulated on both federal and state levels in the Unites States. A federal registration for a pesticide product must be obtained after the product has shown that it is safe to use according to the guidelines set forth by the United States Environmental Protection Agency (USEPA). Each state may then choose to register the pesticide product in their state provided the product will not cause an adverse environmental or health effect due to that state's unique geographical characteristics. Each state, through the state lead agency (SLA), is responsible for regulation of urban pesticide use in their state and those regulations may vary considerably. Integrated Pest Management (IPM) in schools is mandatory in some states and voluntary or non-existent in others. Concern about West Nile Virus has caused pesticide regulation for cities and towns in some states that perform community-wide mosquito control applications. Other states may be more concerned about pesticide use on public golf courses or retail outlets that sell pesticides and give pesticide use advice. In addition to legitimate pesticide use in urban areas, states have had to deal with the illegal use of agricultural pesticides in urban areas such as methyl parathion use for control of cockroaches. In every state except the most northern states, termite control and the use of termiticides is the biggest complaint-generator in urban areas. The Association of Structural Pest Control Regulatory Officials (ASPCRO) is a national association that attempts to assist states in structural pest control issues. Forty-two of the fifty states, including Puerto Rico, The Virgin Islands, and two Native American tribes are currently members of ASPCRO.
Key Words School IPM, Urban Initiative, ASPCRO, FIFRA, USEPA

INTRODUCTION

The United States Environmental Protection Agency (USEPA) was established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard-setting and enforcement activities to ensure environmental protection. USEPA's mission is to protect human health and to safeguard the natural environment, air, water, and land. To accomplish this mission effectively for pesticide use, USEPA's pesticide law, known as the Federal Insecticide, Fungicide, Rodenticide Act (FIFRA), allows that each state be given primacy over pesticide regulation in their respective states. The environmental, cultural, and political diversity of each state requires pesticide use and regulation thereof be modified on a state-by-state basis. In addition to being federally registered, pesticide products must also be registered in individual states where they are sold. Individual states may choose not to register a pesticide product based on that state's particular need.

This manuscript will discuss many of the state regulations of pesticide use as well as the different emphasis that each state may consider to be important.

REGULATORY INITIATIVES

Pesticide Use in Schools

Pesticide use in schools is a concern for regulators, special interest groups, and the regulated community alike. In recent years considerable attention has been paid to the concept that children may be more susceptible to adverse effects from pesticide exposure than the rest of the population. Therefore, in an attempt to reduce the amount of pesticide exposure to children, the adoption of Integrated Pest Management (IPM) in schools is being recommended by both state and federal regulatory agencies. Although the definition of IPM varies, the general principal is judicious use of pesticides, more or less as a last resort. Seventeen states have mandated some sort of IPM program for schools (USEPA, 2004). However, the legislative IPM mandates of each state may vary considerably (see appendix). Most of the effort in this area has been in education of both the community as well as school officials. Many of the states that do not mandate IPM in schools will encourage voluntary IPM pesticide use and/or offer IPM training for school officials. Information on state programs and individual state websites are available from: www.epa.gov/reg5rcra/ptb/pest/ipm/index.html

Arizona. (Last Updated 4/5/99). A 1993 law requires pest control operators to notify schools 72 hours prior to pesticide applications in and around public schools. The pesticide notice must include pesticide brand name, concentration, application rate, product label, MSDS and label use restrictions: schools must notify students, teachers and parents 48 hours before application; signs must be posted at main entrances 48 hours before and after application; general use disinfectants, sanitizers and deodorizers are exempt; continuing education certification program with certified applicators; training to certified applicators with focus on IPM in Schools. 72 hours advance notification required for pesticide application in schools.

California. (Last Updated 11/30/01). The Healthy Schools Act of 2000 (Assembly Bill puts into code Department of Pesticide Regulation's (DPR) existing voluntary school IPM program and adds some requirements for schools, such as parental notification of pesticide application, warning signs, record keeping at schools and pesticide use reporting by licensed pest control businesses which apply pesticides at schools. DPR is committed to facilitating voluntary adoption of IPM policies and programs in schools throughout California. To do this, DPR will be assisting school districts with their implementation of the new Education and Food & Agricultural Code requirements. Traditionally, laws concerning the use of pesticides are found in the California Food and Agricultural Code with the California Department of Pesticide Regulation (DPR) and the County Agricultural Commissioners serving as the enforcing agencies. Many of the requirements of the Healthy Schools Act of 2000 (AB 2260), including notification, posting and on-site record keeping are found in the Education Code, and thereby not enforced by DPR or the County Agricultural Commissioners.

Georgia. (Last Updated 3/26/99). 1996 legislation mandates posting of sign prior to pesticide applications in public school buildings. Pest control operators must give schools a MSDS for each product applied sanitizers, disinfectants, and deodorizers are exempt. Voluntary initiatives are taking place; survey targeted at schools is being developed and some schools have specific IPM person though nothing is mandated statewide. There is no IPM training in the public schools.

Louisiana. (Last Updated 3/29/99). 1993 legislation encouraged schools to use the least toxic method of pest control. Eight-hour reentry period required for restricted use pesticide applications. 1995 legislation requires schools to develop annual IPM plans for submission to Louisiana Department of Agriculture and Forestry.

Montana. (Last Updated 4/9/99). 1993 legislation established voluntary school IPM and requires the Montana Department of Agriculture to prepare and distribute a model school IPM plan. 1997 legislation requires a sign to be posted at buildings and it must remain posted until the pesticide is dry or the reentry interval on the label has expired. Antimicrobial, disinfectants, sanitizer, pest baits, gels, pastes and other pesticides designated by the Montana Department of Agriculture are exempt.

Minnesota. (Last Updated 9/12/2001). The 2000 Minnesota State Legislature passed new regulations about notification of pesticides use and Integrated Pest Management in Minnesota's K-12 schools.

Michigan. (Last Updated 9/5/2001). 1992 Administrative Rules mandate IPM in schools: Signs must be posted at primary entrance and remain for 48 hours after application. General use ready to use pesticides, deodorizers, sanitizer and disinfectants are exempt. 1993 legislation mandates schools to give parents information at the beginning of each school year about their right to be informed prior to pesticide applications. The Michigan State Regulation No. 637 contains Rule 14 entitled: Integrated Pest Management, which provides that an approved pesticide applicator should work in conjunction with building managers for the implementation of integrated pest management programs. Rule 15 then applies to pesticide treatment used in and around schools.

Massachusetts. (Last Updated 3/5/99). If requested, the applicator or school administrator must provide notification of pesticide applications (date, location and pesticide that may be applied). Enclosed baits and traps, microbial disinfectants, wood preservatives and algacides are exempt.

Maryland. (Last Updated 3/30/99). House Bill 286 passed in March/April 1998, thus mandating IPM in Schools. It includes notification and MSDS reporting requirements. All school districts to have an approved IPM program in place. Distributional materials used in advocating the IPM program for schools include: Video; Regulations; Information sheets on Licensing and Certification, Record Keeping, and Storage; Training Manual; Grounds Maintenance IPM Manual (undergoing finalization). The IPM in schools was developed as a cooperative effort between Maryland Department of Agriculture, Maryland Extension Service and other state entities such as the Governor's Pesticide Council, and the Associations of Board of Directors of Maryland's Department of Education. Workshops and training sessions were held throughout to educate the school districts' staff kids and parents. Numerous training materials including a video tape were developed and distributed to the school districts.

New Mexico. (Last Updated 7/01/03). In 2000, the New Mexico Board of Education adopted a School IPM rule. This rule was to give guidance to school districts to look at their pest management practices and change them to a practice of using least toxic chemicals. This rule is only a guidance, while it is encouraged that school districts adopt this policy there is no enforceable law to make schools comply with this direction. School Board Rules New Mexico has 89 school districts, comprising 762 campuses with approximately 324, 520 students enrolled (spring 2001). However, in 1999 the Albuquerque ISD adopted their own School IPM policy. This is a grassroots policy developed by the school district to help maintenance personnel deal with pest problems while using the tenets of IPM philosophy to solve pest and pesticide exposure.

New Jersey. (Last Updated 7/27/00). New Jersey Administrative Code requires permanent signs to be posted at a central bulletin board. Notice must include date of latest application, pesticide used, contact person and telephone number and proposed date of next application. The Pesticide Reduction Campaign is funded in part by the Environmental Endowment of NJ, Geraldine R. Dodge Foundation, The Whole Earth Center and Clean Water Fund. 1/99.

Pennsylvania. (Last Updated 4/9/99). 1995 regulations mandate a seven hour reentry period for applications made in common access areas in schools and day care centers. Disinfectants and sanitizer are excluded. 1998 Legislation for mandatory notification and mandatory IPM has been turned down in the State Legislature. The Pennsylvania Integrated Pest Management Program (PAIPM) is charged with coordinating IPM implementation and education throughout the state. It is a collaboration between the Penn State College of Agricultural Sciences and the Pennsylvania Department of Agriculture.

Rhode Island.(Last Updated 3/5/99). Rhode Island recently passed notification legislation regarding pesticide applications in schools and daycare centers, as well as encouraging IPM practices.

Texas. (Last Updated 11/8/01). 1991 School IPM legislation mandates use IPM and the least toxic methods available to control pests, and it prohibits, pesticide applications from being made to an area in which students are expected within 12 hours of treatment. This law has most stringent reentry requirements and notification rules. Pesticides are classified into Red, Yellow and Green lists depending on EPA toxicity categories. Schools must inform parents that pesticides are applied periodically and information on times and types of application is available upon request. The Texas Agricultural Extension Service has a five-part video series regarding IPM. For information, call them at (972) 952-9204. These are sold by set or individually.

Washington. (Last Updated 7/01/03). The IPM in Schools Working Group has functioned since 1994. They launched IPM in Schools website in 2002. State legislation in 2002 requires posting, notification, and record keeping. Washington State Department of Agriculture provides pesticide use and reporting software.

West Virginia. (Last Updated 4/5/99). 1995 school and day care law requires the "use of least hazardous materials." Schools must notify parents of right to be informed prior to any broadcast or space treatment 24 hours prior to the application. Reentry restrictions mandated for certain applications: 4 hours reentry for spot treatments; 8 hours reentry for broadcast and space treatments. In 1996 the W.Va state Legislature mandated this IPM program to reduce exposure and health risks from pesticides in grades K through 12 and Day Care Center who are licensed by the Department of Health and Human Services. Such facilities must have seven or more children. Pesticides are classified into Tier II, III and IV according to EPA toxicity categories. (Tier I includes non-chemical pest control methods.).

West Nile Virus and Mosquito Control

West Nile Virus has received considerable media attention in the past few years. The Center for Disease Control (CDC) has tracked confirmed cases of West Nile Virus across the country (CDC, 2004). With the spread of West Nile Virus across the United States, many government officials are being pressured by their constituents to develop some kind of strategy for mosquito control. State regulators are faced with the prospect of untrained local government employees making wide-spread pesticide applications in residential areas. There is often political pressure from those individuals who are opposed to community-wide adulticiding. This political battle occurs every year during the height of mosquito season. Many state lead agencies (SLAs) across the country have implemented mandatory training and certification for government and other not-for-hire employees who perform community-wide pesticide applications for the control of mosquitoes. More regulation will undoubtedly be proposed as urban mosquito control evolves in the states.

Pesticide Applications in Public Areas

Many states are wrestling with applications being made in public areas by not-for-hire individuals. Those areas of concern include universities, apartment complexes, golf courses and other public areas that may be treated for the control of pests by unlicensed individuals. While some states regulate pesticide applications by not-for-hire applicators, many states do not. Public awareness and political pressure have forced SLAs to take a closer look at pesticide applications in these urban areas. Golf courses in particular have often gone unnoticed by the regulatory community in spite of the fact that large volumes of pesticides are often used. Many state agencies are conducting outreach programs for golf course superintendents in an attempt to establish best management practices.

Urban Initiatives

In addition to the legal applications of pesticides that occur annually, SLAs must also deal with the illegal use of pesticides. In the past several years, the agricultural use insecticide, methyl parathion, has been found in urban areas where it has been used for cockroach control. The illegal indoor use of this relatively toxic insecticide can result in serious health problems for building occupants. USEPA and several states have spent millions of dollars in cleanup efforts for this illegal use of methyl parathion. Over 6000 homes and businesses in Arkansas, Indiana, Illinois, Louisiana, Michigan, Mississippi, Ohio, Tennessee, and Texas were illegally treated with methyl parathion in urban areas for the control of cockroaches (USEPA.1997). Other agricultural pesticides have also been illegally used from time to time in urban areas as well as imported pesticides that are not federally registered.

Termite Control

In spite of the large agricultural pesticide user industry in the United States, pesticide applications for the control of termites is one of the biggest generators of complaints. Over 1.5 billion dollars is spent annually in the United States alone for treatment and damages caused by termites (NPMA, 2004). Consumer complaints range from failure to control termites to environmental concerns over termiticide misuse. In response to this large area of concern, SLAs joined together in 1957 to address similar urban problems faced by each state (Saxton, 1994). The Association of Structural Pest Control Regulatory Officials (ASPCRO) is the association that was born out of this concern. Although all urban pesticide applications are regulated by structural pest control regulators, the area of termite control demands most of the energy and resources of states and ASPCRO (Saxton, 2004). The need to properly control termites is offset by the need to do so efficiently and with minimal impact on the environment. Research is continuously evolving to develop more user and environmentally-friendly termiticides without compromising on efficacy.

CONCLUSION

Pesticide complaints have increased for many state regulators due to increased awareness by the public concerning pesticide use in urban areas. The regulated industry is under ever-increasing pressure to apply pesticides in a more judicious manner and are being held accountable more than ever for those pesticide applications. State regulators are often called upon to help balance the concerns of the pesticide user industry, pesticide manufacturers, researchers and special interest groups. Although future emphasis will include pesticide use in schools, mosquito control and pesticide use in public areas, and improper use of pesticides in urban areas, most of the attention by SLAs will be in the area of termite control.

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