



Connecticut Department of Energy and Environmental Protection

Guidance on Determination of Threats to Human Health, Allowing Application of Lawn Care Pesticides at Schools

State law (Sec 10-231b of the general statutes) provides for a phase out and eventual ban of lawn care pesticides at public and private schools grades pre-K through 8. There is however a provision in this law that allows for the emergency use of pesticides to eliminate threats to human health. The determination of health threat may be made by: local health directors, superintendents of public schools, the state Department of Public Health (DPH), or the Department of Environmental Protection (DEP). This guidance has been developed jointly by the DEP and DPH to assist local health departments and superintendents in their determinations when schools or their contractors wish to make a lawn care pesticide application for human health protection.

It is important to remember that health directors and superintendents only need to make this determination to allow the use of lawn care pesticides. Lawn care pesticides are defined in the law as any pesticide that is labeled for use on lawns, gardens or ornamental sites and areas (including trees). Other pesticides may be used to control human health threats without such a formal determination. Notification of either type of application must be made by the normal method, i.e. to those parents/guardians who have registered for notification.

The pests listed below are considered to be the most common ones for which a decision will likely need to be made. You should note that nuisance pests, such as dog ticks, biting flies or mosquitoes in the absence of indications they are carrying disease, are not considered a threat to human health sufficient to justify control with lawn care pesticides. We have also included integrated pest management (IPM) recommendations for each pest, which should reduce the amount of pesticide used and increase the effectiveness of the application, if needed.

Black legged (Deer) Ticks

Ticks must be identified by a qualified person, most frequently a pest control or lawn care professional with a supervisory pesticide application certificate. Only black legged ticks carry the most important infectious agents of diseases of public health concern in Connecticut (Lyme disease, babesiosis, or ehrlichiosis), so lawn care pesticides may be used to control only this type of tick. Dog ticks, while common, are not frequent carriers of these agents, so need not be controlled as a human health threat. The IPM measures recommended for this pest will greatly reduce the need for pesticides. These include habitat modification, such as the trimming of tall grass and brush, removal of leaf litter, restricting the use of ground cover plants, and trimming trees and brush to allow more sunlight to the ground. Playscape equipment should also be in areas away from field edges. If ticks are still present, and lawn care pesticides need to be used, the areas of concern on the school grounds should be evaluated by dragging for ticks to determine where the population occurs (see tick management handbook noted below for techniques). Only the "hot spots" should be treated. Since ticks prefer edges and tall grass, these

hot spots will almost never include lawns or playing fields, except at the very edge. Pesticide treatments should be limited to one or at most two per year, the more important application being in the mid to late spring to control nymphal ticks, and a second mid-autumn application to control adults. The tick population in treated areas should then be monitored by dragging. More detailed methods for tick monitoring and habitat control may be found in the *Tick Management Handbook* by Dr. Kirby Stafford of the Connecticut Agricultural Experiment Station (CAES) at: http://www.ct.gov/caes/lib/caes/documents/special_features/TickHandbook.pdf

Mosquitoes

Adult mosquitoes may only be controlled with lawn care pesticides if population monitoring has shown that there is an infectious agent of human disease (e.g. West Nile virus or eastern equine encephalitis) being carried in the population, and control is needed to prevent an outbreak of such disease. This determination will most likely be made on an area-wide basis through monitoring by state agencies. Most types of mosquito control will not require the use of lawn care pesticides. For example, larvicides are not lawn care pesticides, nor are most fogging products, and can therefore be used without a health threat determination. Foliar applications of lawn care pesticides are sometimes appropriate to establish a barrier where adult mosquitoes will be killed when they alight on the treated foliage. This type of application should be limited, and made after consultation with mosquito control experts at the DEP or CAES. (Contact information is below)

Stinging Insects

Yellowjackets and wasps are common pests on playgrounds. Their control however will very rarely involve the use of a lawn care pesticide. Most frequently they can be controlled with over-the-counter aerosol pesticides. This use does not require a health department or superintendent determination of a public health threat. Rarely, burrowing wasps will require the use of a lawn care pesticide to control them over a wider area than a single burrow, but even there, physical methods, such as covering the area with mulch, may suffice. Clover in lawns will attract honeybees. The control of clover with herbicides however should not be considered as a public health use. Honeybees are not particularly aggressive, and the clover flowers can be eliminated by simply mowing the lawn.

Poison Ivy

Poison Ivy is not likely to occur in great abundance in lawns. It can however be common along the edges of fields and growing up trees. Before controlling this weed with herbicides, the site should be evaluated to determine if schoolchildren actually frequent the area. The children should also be taught to recognize and avoid the plant. If the infestation needs control with herbicides, it should be done on a spot treatment basis. For example vines growing up trees can be treated with a cut stem technique, where the cut stem of the plant is treated with a herbicide, preventing re-growth and eliminating the need for foliar spray.

Other Pests

Control of other pests may also require the use of lawn care pesticides. Giant Hogweed is one possibility. Although rare, it is an attractive nuisance, with large stems that might be used for swords or spyglasses by creative children. Unfortunately, it also can cause severe skin irritation. With increasing travel and globalization new public health pests could appear at any time. These will need to be handled on a case-by-case basis, with consultation with the DPH, DEP and CAES.

Pesticide Selection

Lawn care pesticides used to control a threat to human health should be selected on the basis of their overall hazard. Hazard includes: toxicity, efficacy, which in turn affects frequency of use, concentration, and potential for exposure. Clearly, pesticides that have lower hazard should be chosen in preference to those with higher hazard. This determination however is not always clear-cut, since some products with higher inherent toxicity have lower use rates and less frequent applications needed. Most frequently, the school or its applicator will propose a pesticide, which can then be evaluated. The DEP pesticide program can provide additional guidance on this process.

Pesticides should not be applied when children are in the treated area, and preferably when school is not in session. People must not be allowed to re-enter the treated area until the product label allows it.

Coordination

One purpose of this guidance is to provide consistency for determinations of threats to public health that may justify the application of a lawn care pesticide. If a state agency is solicited to make such a determination, it will contact the local health department before notifying the school to assure that decisions are made with all necessary input and to avoid confusion. Local health departments or superintendents should not hesitate to consult with a state agency, or notify such agency of a determination to use a lawn care pesticide. Contact numbers are below.

DEP Pesticide Program 860/424-3369 (complaints, enforcement, pesticide information)

DEP Mosquito Management 860/642-7630 (mosquito control methods)

DPH Environmental and Occupational Health Assessment 860/509-7742 (health effects of pesticides)

DPH Epidemiology and Emerging Infections 860/509-7994 (infectious diseases information)

CAES Mosquito trapping and virus surveillance 860/974-8510

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