

Brian Wheeler

To: Diane Behrens
Subject: RE: Use of pesticides

From: Diane Behrens [mailto:BEHRENS@k12albemarle.org]
Sent: Thursday, May 15, 2008 8:01 AM
To: School Board; Board of Supervisors members; Jackie Lombardo
Cc: Pam Moran; Bruce Benson; Lindsay Check
Subject: Use of pesticides

Lindsay Check, our Environmental Compliance Manager, has prepared the information below in response to questions asked by F.A.C.T.S. We are committed to reducing the use of synthetic products on our grounds and in our facilities. I hope you find this helpful.

Diane

Background

In June of 2007 the Board of Supervisors directed the County Executive, in consultation with the School Division Superintendent, to establish an internal County committee tasked with developing a policy regarding safer chemical management practices County-wide. The Safer Chemical Committee (SCC) has since held nine meetings to develop the Safer Chemical Management Administrative Policy and accompanying Standard Operating Procedure (SOP). The Building Services, General Services and Parks and Recreation Departments have made significant strides toward implementing safer chemical management practices over the last several years. Beginning in 2005, these departments began testing and using safer alternatives to synthetic, traditional cleaning products, and pesticides and herbicides, as a result of implementing an Environmental Management Policy, and also due to an increasing stakeholder interest in the types of products routinely used by the County. The aforementioned departments have all been able to significantly reduce the volume of synthetic products used on grounds and in facilities, and have replaced many of these products with green certified and organic alternatives.

Status of the Safer Management Policy and Standard Operating Procedure

The Safer Chemical Management Policy is currently a draft administrative policy that promotes the use of non-chemical methods and safer product alternatives in County operations and activities, in lieu of using traditional, synthetic products. The draft Policy requires that the County regularly conduct research in support of *continual improvement*. The accompanying Procedure is a more detailed procedure that will be managed at the department level. In summary, the Procedure stipulates that: 1) custodial products be certified by Green Seal™, Green Guard™ or Environmental Choice™, or meet outlined criteria; 2) high-touch surface areas (e.g. bathrooms, kitchens) be routinely sanitized or disinfected as deemed appropriate by the manager overseeing custodial operations, and that disinfection occur in response to a blood-borne pathogen event or viral outbreak, or as directed by the Department of Health; 3) chemical usage be eliminated when practicable and feasible in grounds management; if chemicals must be used, then organic or biological-based alternatives be used, with 5 outlined exceptions; 4) the County implement a formal integrated pest management (IPM) program by August 2008 for management of indoor pests.

The Safer Management Policy and Standard Operating Procedure will be presented to the Board of Supervisors on June 4, 2008. A tentative date for a presentation to the School Board has been set for July 10, 2008.

General Comments Regarding F.A.C.T.S. Email:

Integrated pest management sets thresholds for action levels at which chemical responses can be taken after physical controls have failed. Any pesticide used is applied by a registered technician or commercial applicator certified by the Virginia Department of Agriculture and Consumer Services and applied in accordance with the EPA-registered label. It is also important to note that after transitioning from scheduled monthly crack and crevice treatments at each school approximately 8 months ago, ACPS has only had five pesticide treatments since the

monthly treatments have ceased (each listed by F.A.C.T.S. except for ground-dwelling bee treatment at Sutherland courtyard). Including all schools, the change from scheduled monthly treatments to IPM has resulted in approximately 200 less pesticide treatments over the course of 8 months.

Most of the links presented by F.A.C.T.S. refer to the hazards of the active ingredient indicating that these active ingredients are used at a concentration of 100%. As shown in the following table, the active ingredient is listed as present in the product concentrate and then in the application solution.

Table 1: Pesticides, Active Ingredients, and Usage

Pesticide Product	Active Ingredient	Percentage of Active Ingredient in Product	Percentage of Active Ingredient in Application Solution
Suspend SC	Deltamethrin	4.75%	0.25 ounces per gallon of application solution or 0.01% of active ingredient in application solution
Siege Gel	Hydramethylnon	2.0%	Application rate is 0.25 grams per square meter and is only used in spot locations. The application of this product is performed by placing little dots in cracks and crevices where the product is not within reach of any staff or students.
Premise 2	Imidacloprid	21.4%	8 mL of product per gallon of water or 0.05% of active ingredient in application solution Product was used as a spot treatment of exterior where ants trailing at the exterior of the building.
Termidor	Fipronil	80%	2.1 ounces of product per 25 gallons of water or 0.06% of active ingredient Application solution product is foamed into the infested wall crevice and the wall is subsequently plugged. For exterior treatments, the product is introduced in trenches at the slab.

Responses to the following statements by F.A.C.T.S. are listed below.

1. F.A.C.T.S. Comment:

I am deeply concerned that despite a moratorium on pesticides on school fields, Albemarle County public schools are still using toxic pesticides near children and teachers. Premise II ([Imidacloprid](#)) is a neurotoxin [banned in France in 1999](#) but used April 9, 2008 at Agnor-Hurt Elementary on ant trails. Please do not use neurotoxins, deemed to toxic for another country's children almost a decade ago, near our children. A sweep with a broom, caulking entrance holes, boric acid, and if necessary pesticide baits in tamper-resistant containers, would solve an ant problem quickly and permanently. Using neurotoxins on ants is overkill; near children, it's irresponsible.

Response:

[Excerpted from the link listed by F.A.C.T.S. referring to the Imidacloprid ban in France] Although declining honeybee populations are an area of concern, the referenced link indicates that France banned Imidacloprid based on the health of their honeybees and not their children.

Imidacloprid was banned in France in 1999 as a suspected cause of drastic and mysterious die-offs in honeybees. Differences of opinion abound in bee circles, and a direct causal link between the chemical and bee mortality has not been made. ...Another possible culprit is a class of insecticides known as neonicotinoids, which have been

widely detected on pollen at low concentrations in other countries experiencing die-offs of honeybees. Neonicotinoids are systemic pesticides used on plant seeds. When the seeds mature, the pesticide manifests itself throughout the plant. When an insect ingests any part of the plant, it gets a dose of the neurotoxin that can cause a quick and lethal breakdown of the insect's nervous and immune systems. As a result, a bee's ability to learn can become impaired, leading some scientists to suggest that exposed bees may leave the hive and literally not be able to find their way back. One of the chemicals in this class, imidacloprid, is marketed in the United States for use as an insecticide on food crops, as well as to control termites and fleas. Imidacloprid was banned in France in 1999 as a suspected cause of drastic and mysterious die-offs in honeybees. Differences of opinion abound in bee circles, and a direct causal link between the chemical and bee mortality has not been made.

Before the IPM program was implemented at each school, Building Services minimized physical pest entries for each school. The Premise 2 treatment was only conducted as a spot treatment at exterior points of the building where ants were trailing and it was conducted with the application solution of 0.05% of active ingredient. The application was only performed after baits failed to eliminate the ant problem.

2. F.A.C.T.S. Comment:

Termidor ([Fipronil](#)) was used April 28, 2008 at Red Hill Elementary and Sutherland MS and again on May 2, 2008 at Murray Elementary School. Termidor (Fipronil) is a persistent suspected carcinogen and endocrine disruptor that this [study](#) shows the smallest doses are more toxic than larger ones in mutating and killing human cells. "Fipronil is a relatively [new insecticide](#)...a precautionary approach may be warranted. ...it would appear unwise to use fipronil-based insecticides without... human health monitoring...where use brings it into contact with people." Please, stop and use safer [alternatives](#).

Response:

Prevention is the best focus and alternative for termite control, but once a problem has occurred, the following solution is recommended by the UC Davis IPM program for subterranean termites.

Controlling Subterranean Termites

Subterranean termites in structures cannot be adequately controlled by fumigation, heat treatment, freezing, or termite electrocution devices because the reproductives and nymphs are concentrated in nests near or below ground level in structures out of reach of these control methods. The primary methods of controlling these termites are the application of insecticides or baiting programs. Use of insecticides or baits should be supplemented with the destruction of their access points or nests. To facilitate control of subterranean termites, destroy their shelter tubes whenever possible to interrupt access to wooden substructures and to open colonies to attack from natural enemies such as ants.

3. F.A.C.T.S. Comment:

It is distressing the following pesticides also remain on the pest control list for schools:

- Suspend SC ([Deltamethrin](#)) - a suspected neurotoxic and carcinogenic permethrin that the [Environmental Protection Agency](#) reports causes "skin irritation, dizziness, twitching, potential autoimmune disease and nervous disorders...may also be neurotoxic during development...and likely to be carcinogenic in humans."
- Siege Gel ([Hydramethylnon](#)) - a recognized developmental toxin, reproductive toxin, and suspected carcinogen that the EPA classifies as having "serious or irreversible" health effects in humans including cancer.

Response:

Please note that these links refer to the hazards of the active ingredient and not the application solutions of the pesticides. Please refer to Table 1 for accurate application solution information. These products are on the list of possible pesticides in the case that physical barriers and less toxic alternatives fail.

4. F.A.C.T.S. Comment:

Reserve pesticides ONLY for a true pest emergency, if a pest endangers the health of children or teachers.

In that case, post signs and send letters to teachers and parents as recommended by the [Virginia Pesticide Control Board](#). Following the rules will help schools avoid near miss situations, like at Jack Jouett MS last year, where the neurotoxin [Deltamethrin](#) was almost applied in the cafeteria less than 2 hours before the 8th Grade dance. Neither the teachers nor the parents or the children, not even the principal, was aware a pesticide application was about to take place. The Pesticide Control Board understands proper communication is essential to avoid dangerous, near miss situations with pesticides and children.

Response:

The "near miss" referred to by F.A.C.T.S. was a scheduled monthly crack and crevice treatment with Suspend SC.

When the monthly treatments were conducted in the past (the scheduled crack and crevice treatments have been eliminated) only about a ½ gallon of Suspend SC application solution was used in cracks and crevices with an active ingredient concentration of 0.01%. The F.A.C.T.S. comment leads one to believe that Deltamethrin at 100% concentration was scheduled for the “near-miss” application. Per the Suspend SC EPA-registered label, the reentry requirement is to “let surfaces dry before allowing children or pets to contact surfaces”.

Additionally, since the inception of the IPM program in the schools, any pesticide applications that are required after physical controls have failed are listed 24 hours in advance on the environmental website accessible at <http://schoolcenter.k12albemarle.org/environmental> under the Integrated Pest Management page. The IPM binder at schools contain information about the glue board monitors that are used to count any pests present in the kitchen areas each month and a floor plan for each school that is used to document any pest activity. The binder also contains label and MSDS information for any pesticide that may be used in the school. At the beginning of the new school year, all schools will be transitioned to the IPM program, and a notice will be sent to parents explaining the IPM program and describing ways to access the application notices. Even with an IPM program, pesticide use is not banned as requested by F.A.C.T.S.