TEXAS PIN

TEXAS PESTICIDE INFORMATION NETWORK

Pesticide Report Card:
Texas Schools Score from A to F in the Integrated Pest Management Program

Are we reducing kids' exposure to toxic substances?

A survey shows we could be doing a much better job.

A Texas PIN/Consumers Union Southwest Regional Office Report

September 1999

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TEXAS PIN

EXECUTIVE SUMMARY

Though most people know about the problems associated with toxic substances such as asbestos and radon in schools, fewer are aware that pesticide use in schools can seriously harm children as well. Four years ago, the state of Texas adopted regulations requiring the use of Integrated Pest Management (IPM) to reduce the levels of toxic pesticides in schools. IPM stresses safety for human health and the environment, prioritizes pest prevention, and uses least toxic methods in the control of pests.

Consumers Union investigated seven independent school districts across the state to see how well they were implementing IPM. This sampling of school districts, on average, rated fair to poor in their implementation. Though Texas passed one of the more comprehensive laws in the United States requiring pesticide reform in schools, the law is ineffective without better implementation and enforcement.

- One school district reported using least-toxic methods of pest control, when in reality, they used the most toxic mix of pesticides of all the schools surveyed.

- Another school district used many pesticides with low toxicity, but used a highly toxic product for a purely aesthetic purpose—to burn lines in its football fields.

- There is evidence that school districts underreport the toxicity of the pesticides they use, and a few regularly waive standard safety requirements by deeming their applications to be emergencies.

This report provides details regarding pesticide use in each of the school districts we surveyed and information about the chemicals and 'inert' ingredients in the pesticides, and explains the potential health impact of pesticides in schools given that pesticides are also appearing in water and food. We recommend a number of changes to the existing regulations, and also provide resources that you can use to research pesticides in your area.

Our recommendations:

- Mandate the types of pesticides to be used in Texas school districts, restricting the use of highly toxic pesticides, and requiring schools to make available comprehensive information about their pesticide use.

- Remove the emergency clause that waives standard safety rules.

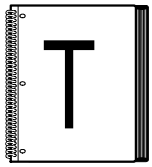
- Conduct a statewide assessment of all school districts.

Pesticide Report Card:

Texas Schools Score from A to F in the Integrated Pest Management Program

Childhood cancer is now the leading cause of death in childhood from disease. Scientists find more links each year between cancer and pesticides.

CHILDREN, PESTICIDES AND CANCER



hough most people know about the problems associated with toxic substances such as asbestos and radon in schools, fewer are aware that pesticide use in schools can seriously harm children as well. Though popular conception might be otherwise, "Pesticides are *not* 'safe,'" according to the Environmental Protection Agency 1990 Citizen's Guide to Pesticides. "They are produced specifically because they are toxic to something."[1] According to data collected from Poison Control Centers across the country, the Environmental Protection Agency (EPA) found that at least 2,766 pesticide poisoning incidents occurred in schools nationally from 1985 to 1992.[2]

Research is beginning to show that the most widespread effects of pesticides (which include insecticides, herbicides, and fungicides) are not from acute poisoning, but from long-term and even seemingly low-level exposure. Childhood cancer is now the leading cause of death in childhood from disease, and scientists find more links each year between cancer and pesticides.

According to the EPA, children develop leukemia three to nine times more often when pesticides are used around their homes.[3] Brain tumors in children have been linked with insecticide exposure.[4] Between 1974 and 1991, the overall incidence of cancer during childhood has increased 10 percent, making cancer the leading cause of non-infant childhood death from disease.[5] The rate has been increasing by approximately one percentage point per year.[6] Approximately 4.8 million children in this country under 18 have asthma, the most common chronic illness in children and the number one reason for absenteeism in U.S. schools.[7] Scientific studies have linked various forms of asthma to pesticide exposure.[8]

The EPA states, "Pesticides may present a threat to the health of children because of their widespread use, high toxicity, and possible misuse by uninformed, inexperienced homeowners and professionals. Some active ingredients in pesticides have been shown to cause birth defects, cancer, and thyroid disease in rats and mice. Supposedly inert ingredients in any pesticide product may include solvents, diesel fuel, or other petroleum products that also may be toxic to exposed children."[9]

The National Parent Teacher Association encourages the reduction of pesticide use in schools. In 1993, it adopted a position statement concerning pesticide use in schools and daycare centers, supporting efforts to eliminate the health hazards caused by pesticide use and promote the authority of state and local governmental bodies to regulate the use of pesticides. In 1998, the National PTA reviewed and reaffirmed its position statement, and added that it encourages the use of Integrated Pest Management in schools and daycare centers.[10]

PESTICIDES ARE EVERYWHERE

Pesticides drift in the air, invade building ventilation systems, and seep into drinking water, lakes, and rivers. Schools must take particular care that pesticide use is minimized in the classrooms and on the playgrounds where children spend significant time.

Pesticide use in the United States is significant and accounts for about one-fifth of pesticide usage worldwide. Using national pesticide sales data, the EPA estimates that Americans used almost one billion pounds of pesticides in 1995—approximately 3.7 pounds of pesticides per person.[11] There is often inadequate data regarding pesticide use, and in Texas there are efforts underway to make more information about pesticide use available (see page 12).

These substances spread farther than we ever imagined possible and stick around for longer than they were ever supposed to—especially indoors. Outside, the sun, rain, and soil break down or dilute pesticide residues. But indoors, residues can expose children for days, weeks, months, or even years after the pesticide application has taken place. One study of farmworker homes near commercial orchards found that median concentrations of certain types of pesticides in dust indoors were between 17-100 times higher than median concentrations in the soil in outdoor play areas.[12] Pesticides are showing up in trace amounts in virtually all water sources and many fruits and vegetables.

THE SPECIAL NEED FOR PROTECTING CHILDREN

Studies have also demonstrated that pesticide safety levels—set based on adult tolerances—are dangerous for children. According to the National Academy of Sciences, "exposure to neurotoxic compounds at levels believed to be safe for adults could result in permanent loss of brain function if it occurred

Pesticides in Every Stream

"Results from the first phase of the National Ambient Water Quality Assessment Program (NAWQA) show that pesticides have made their way into almost every waterway that has been tested. Conducted by the US Geological Survey under a 1991 congressional mandate, the NAWQA is the most extensive monitoring ever performed. In the program's first phase, more than 8,000 water samples were analyzed for 76 pesticides which account for some 75% by mass of total national agricultural pesticide use and a substantial portion of urban and suburban use. Pesticide distribution generally follows regional patterns of agricultural use, with seasonal pulses during high use periods.

Approximately 37-45% of samples from shallow groundwater in urban and agricultural areas had levels of at least 0.01 micrograms per liter. The most frequently detected compounds in agricultural areas include atrazine and its transformation products, metolachlor, cyanazine, and alachlor. Insecticides were found at greater levels in urban streams with diazinon, carbaryl, malathion, and chlorpyrifos among the most frequently detected.

Safe drinking water standards (set to protect human health) have only been set for 43 of the 76 pesticides analyzed. Peak levels of herbicides in some agricultural regions frequently exceeded these standards, whereas average annual concentrations seldom did. Of greater concern is the fact that levels in about two-thirds of the streams exceeded concentrations that are safe for aquatic life, indicating a high risk to many species, particularly in urban areas *(Environmental Science & Technology*, April 1, 1999, page 167a)."

Source: Consumers Union. *Seeing Green.* June/July 1999. Volume 2, Number 2.

Pesticides in Our Food

"In a 1999 study of U.S. government data, Consumers Union analyzed the average pesticide toxicity of a variety of foods.

The foods with the lowest toxicity index were canned and frozen sweet corn, milk, broccoli, orange juice, bananas, canned peaches, canned and frozen peas, grapes from Mexico, and apple juice.

The foods with the highest toxicity index were fresh peaches, fresh and frozen winter squash, U.S. and Chilean grapes, fresh spinach, apples, fresh, frozen and canned green beans, pears, and celery.

While consumers await stricter government limits, there are steps they can take to minimize pesticide risks in foods they eat or feed their children. We do not recommend eating less fruits and vegetables; the health benefits of these foods

during the prenatal and early childhood period of brain development."[13] More researchers have accepted the possibility that pesticides in the environment can have an effect on human hormonal activity. A federal panel of experts assembled by the National Research Council has called for more clinical tests of humans exposed to pesticides that have proved harmful to animals to see whether they may be causing low sperm counts, breast cancer, and abnormal hormonal activity in humans as well.[14] Children have minds and bodies whose growth and development is guided at times by hormone changes as delicate as a few parts per billion, and thus are extremely vulnerable to the toxic effects of pesticides.

Children have a greater exposure to pesticides because they eat more food—especially fresh fruit and vegetables—in relation to their body weight than adults do. Also, children have a higher respiratory rate, which means they inhale pesticides in the air at a faster rate than adults.[15]

Children play on the lawn, in parks and playgrounds, on the floor and other treated surfaces, and are more likely to put their fingers or other possibly exposed objects in their mouths or in their eyes. Therefore, they are exposed more often and to higher levels of pesticides than adults.

A child's cumulative exposures from all these sources gives reason for all of us to be concerned, and this exposure is currently under discussion in crafting new Environmental Protection Agency policy regarding the protection of children. On August 2, 1999, the EPA made policy changes that affect the use of two of the more widely used pesticides. The EPA is eliminating the use of methyl parathion on a number of fruits and vegetables, and is also changing application rates and practices that will result in significant reductions of the pesticide azinphos methyl on apples, pears and peaches. By the end of next year, the EPA is scheduled to complete its reassessment of the organophosphates and several other older, more commonly used pesticides, and to meet the Food Quality Protection Act's food safety goals.[16]

Children are exposed more often and to higher levels of pesticides than adults.

outweigh risks from the pesticides they contain. However, consumers can:

- Wash or peel fresh fruits and vegetables. Peeling apples, peaches, and pears, in particular, can drastically reduce pesticide exposure from these foods, which have some of the highest Toxicity Indices.
- Try to buy organically grown peaches, apples, grapes, pears, green beans, winter squash and spinach, if they are available where you live.
- Choose a variety of foods; don't overdo it with any one fresh fruit or vegetable.
- Choose foods that have relatively low scores on CU's Toxicity Index."

Source: Groth, Edward et al. "Do You Know What You're Eating? An Analysis of U.S. Government Data on Pesticide Residues in Foods." Consumers Union of the United States, Inc. January 1999.

Why "An Apple a Day" May Be Unsafe

"More than a quarter million American children ages one through five ingest a combination of 20 different pesticides every day. More than one million preschoolers eat at least 15 pesticides on a given day. Overall, 20 million American children at the age of five and under eat an average of eight pesticides every day.

Every day, 610,000 children ages one through five — equal to all the kids of that age in the states of Washington and Oregon combined — consume a dose of neurotoxic organophosphate insecticides (OPs) that the government deems unsafe. More than half of these unsafe exposures are from one pesticide, methyl parathion. The EPA cancelled the use of methyl parathion for most food uses in August 1999.

Preschoolers' eating habits are even more dramatically different from adults than previous data have shown—another factor driving pesticide risks. Taking their weight into account, kids 1 to 5 consume 30 times more apple juice, 21 times more grape juice, 7 times more orange juice than the average person in the population. Four million American 1-to-5-year-olds (20 percent) drink apple juice every day.

Ten years after Alar, apples are still loaded with pesticides. The average apple has four pesticides after it is washed and cored. Some have as many as ten. More than half the children exposed to an unsafe dose of OP insecticides get it from apples, apple sauce or apple juice. Some apples are so toxic that just one bite can deliver an unsafe dose of OPs to a child under five."

Source: Environmental Working Group. "How 'Bout Them Apples? Pesticides in Children's Food Ten Years after Alar." February 1999. Pages 1-4.

THE INTEGRATED PEST MANAGEMENT PROGRAM FOR TEXAS PUBLIC SCHOOLS

In Texas, policymakers took action to reduce the use of the most toxic chemicals in public schools to better protect children. In 1991, the Texas Legislature passed the School IPM law as part of sunset review of the Texas Structural Pest Control Board (SPCB).[17] The primary advocates of this law included Consumers Union Southwest Regional Office, Public Citizen, Texas Parent Teachers Association and Citizens Against Pesticide Misuse. Integrated Pest Management (IPM) is a sustainable approach to managing pests by combining biological, cultural, physical, and chemical control techniques in a way that protects public health and safety and the natural environment. IPM encourages alternatives to chemical pesticide use resulting in lower levels and reduced exposure to toxics overall. The law required each school district to adopt an IPM Program in keeping with SPCB Board standards by September 1, 1995.[18]

Under the Texas IPM rules, public school districts must have in place:

- strategies that rely on the best combination of pest management tactics that are compatible with human health and environmental protection;
- proper identification of pest problems;
- monitoring programs to determine when pests are present or when pest problems are severe enough to justify corrective action;
- use of non-chemical management strategies whenever practical; and
- preferential use of least-toxic chemical controls when pesticides are needed.[19]

The SPCB regulations prohibit pesticide applications within a school building or on outdoor school grounds if such an application will expose students to "unacceptable levels of pesticides" or to "physical drift of pesticide spray particles."[20] The regulations require each school district to employ or contract with a Certified Applicator and designate an IPM Coordinator for the district.[21] And it classifies pesticides used as either "Green List" (least toxic), "Yellow List" (moderately toxic) or "Red List" (highly toxic). Schools must track their pesticide use by category and apply each category according to specific safety protocols (see page 9).[22]

While the law created a strong framework in order to implement IPM in schools, the current regulations undermine that intent. The law prohibits pesticide applications except when students are not at the schools or will not be there for at least 12 hours.[23]The regulations permit school districts to apply pesticides when children are present by declaring a particular pesticide application to be an "emergency"—a big loophole. Emergency treatments of any toxic pesticide are permitted without normal requirements of notification, absence of children in the room or lawn, or other regulations "when there is an imminent threat to health or property or an infestation is imminent."[24] And the regulations let the certified applicator of the district determine when "an infestation is imminent."[25]

Further, the regulations allow moderately toxic pesticides to be applied outdoors when children are present, as long as the children are expected to be at least 10 feet away from the application site for the next 12 hours. Highly toxic pesticides may be applied outdoors when children are present as long as the children are expected to be at least 50 feet away for the next 12 hours. Some of the least toxic pesticides used indoors and all of the least toxic ones used outdoors may be applied in the presence of children as long as the children are at least 10 feet away at the time of application.[26] Taken as a whole, these exceptions to the law undermine its effectiveness and tip the balance against children's safety and in favor of the convenience of school administrators and pesticide applicators.

In addition, the law requires that the "least toxic methods available"[27] be used, but the regulations fail to give significant incentive for school districts to reduce the use of most toxic chemicals in favor of least toxic alternatives. A school district can exclusively use the most toxic pesticides and still be in compliance with the regulations. And the rules make it possible to classify highly toxic chemicals that are insect growth regulators or botanical insecticides as "least" toxic."[28] These loopholes do not embody the spirit of the principles set forth in the law, nor do they adequately protect children.

Toxicity Lists of the Texas School IPM Program

The Structural Pest Control Rules delineate three categories of pesticide use, in order of least toxic to most toxic: Green, Yellow, and Red List.

The Green List includes boric acid and diatomaceous earth; insect growth regulators; insect and rodent baits in tamper-resistant containers or for crack and crevice placement only; microbe-based insecticides (such as Bt, a popular choice for organic food growers); and botanical insecticides (not including synthetic pyrethroids) containing not more than 5% synergists; and biological, or living, control agents. It includes using natural predators or organisms that are naturally toxic to the identified pest. It also includes all physical barriers that keep pests out of schools—traps, caulk, cloth, etc.

Within a school building, **Green** List products in tamper-resistant containers or bait stations, non-containerized baits and gels, and botanical insecticides can be applied anytime students are not present in the room at the time of application. They may also be applied in an open area or multi-purpose room if the area within 10 feet of the location is secured and no students are present within the secured area during the time of application. All other **Green** List products may be applied to a room only if students are not expected to be present in the room for the next 12 hours or the specified re-entry on the pesticide label, whichever is longer. On outdoor school grounds, **Green** List products can be applied if students are not expected to be present within 10 feet of the application site at the time of application.

The Yellow List includes all EPA Category III and IV pesticides (i.e. products carrying a CAUTION signal word) not included in the Green List, with the exception of restricted- or state limited-use pesticides. The use of **Yellow** List products require written approval from the Certified Applicator, and the approval is in effect for 6 months or 6 applications per site, whichever happens first. Examples of **Yellow** List products include the popular insecticide, Tempo, wasp and hornet killers, and several formulations of the herbicide Roundup.

While the law created a strong framework to implement IPM in schools, the current regulations undermine that intent.

Within a school building, Yellow List products may be applied only if students are not expected to be present in the room for the next 12 hours, or the specified re-entry on the pesticide label, whichever is longer. On outdoor school grounds, **Yellow** List products may be applied if students are not expected to be present within 10 feet of the application site for the next 12 hours, and if the treated area is clearly marked to discourage entry or secured by a fence or barrier.

The Red List includes all EPA Category I and II pesticides (i.e. products carrying a WARNING or DANGER signal word) not included in the Green List, with the exception of restricted-use or state limited-use pesticides. The use of **Red** List products require prior written approval from the Certified Applicator and the IPM Coordinator, and the approval is in effect for 3 months or 3 applications per site, whichever happens first. Examples of **Red** List products include the insecticides Demon and Dursban (which use cypermethrin and chlorpyrifos respectively as their active ingredients) and the herbicide Trimec.

Within a school building, **Red** List products may be applied only if students are not expected to be present in the room for the next 12 hours, or the specified re-entry on the pesticide label, whichever is longer. On outdoor school grounds, **Red** List products may be applied if students are not expected to be present within 50 feet of the application site for the next 12 hours, and if the treated area is clearly marked to discourage entry or secured by a fence or other barrier. **Red** List products may be applied only if there are not wind conditions that would disperse the chemical beyond the marked or secured zone.

THE TEXAS PIN/CONSUMERS UNION STUDY

The new provisions encouraging safer IPM practices have been in effect for almost four years. In order to determine whether schools have adopted IPM, Consumers Union asked for pesticide use information for September 1998 from seven independent school districts (Austin, Conroe, Dallas, Fort Stockton, McAllen, Pampa, and Paris) of varying city size and geographical region. We covered a range of school district sizes, from districts with a handful of schools to districts with hundreds of buildings.

Consumers Union collected:

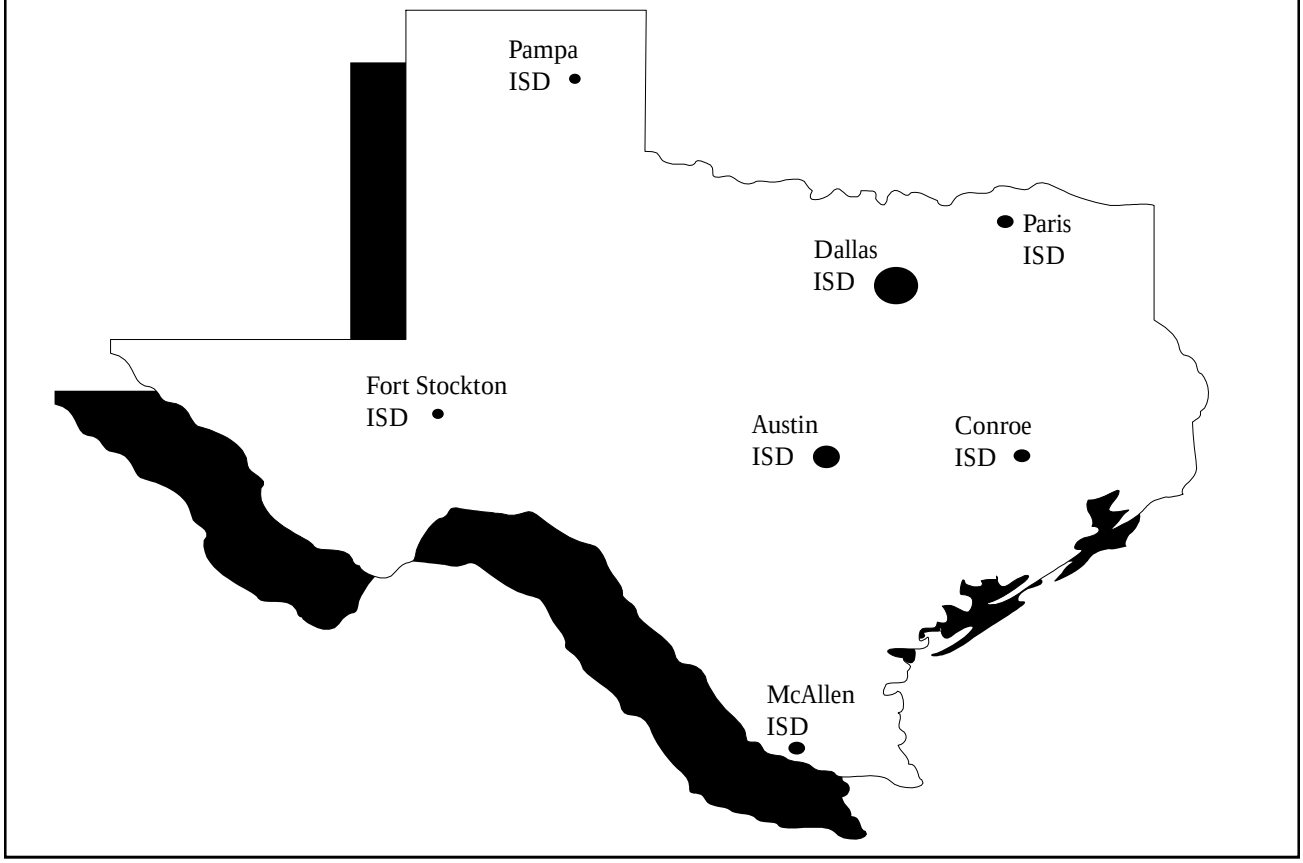
a. Usage Date;
b. Product Name;
c. Application Amount;
d. Application Location, specific school and area of campus;
e. Target Pest;
f. Monthly Total of Pesticide Use for the ISD;
g. Copies of any written approvals for use of Yellow and Red List products; and
h. Any information about emergency treatments and any pesticide-related complaints that have been made since IPM was begun.

To evaluate the data, we asked the following:

- Was there appropriate use of the IPM method and pesticides in general?
- What are the ratios of Green/Yellow/Red list products used?
- Were there emergencies declared, and were they appropriate?
- Was the documentation complete and accurate?

Though one month of data does not fully disclose all that happens during the year, we found that it gave a good snapshot for each school district. We looked for evidence that schools chose a more toxic route or declared an emergency treatment only with good reason. And we looked to see whether or not schools seemed to be choosing long-term solutions geared towards the eventual use of less toxic methods.

TEXAS INDEPENDENT SCHOOL DISTRICTS SURVEYED



FINDINGS

Some school district applicators do not always know whether the chemicals they use are Green, Yellow, or Red List. For instance, formulations of Dursban, an insecticide, were repeatedly listed as Yellow List products—even though they are EPA category II pesticides and appropriately classified as Red List according to SPCB regulation. Orthene, an insecticide, and different brands of wasp and hornet killer were more than once listed as Green List, when they are actually Yellow List. If applicators do not know which categories apply to the chemicals they use, then they do not know the corresponding safety precautions that must be taken.

Texas school districts, on average, rate fair to poor in their implementation of IPM. Most districts demonstrated they were not working with even basic principles of Integrated Pest Management.

- One district repeatedly used a Red List herbicide to burn lines in high school football fields. This school reported multiple applications of this type within the single month sampled.
- In another district, more than 10 percent (and maybe many more) of the treatments were deemed emergencies that waived the standard safety requirements.
- Another district reported all pesticide applications as Green List even though they were actually all Red and Yellow List.

Most school districts demonstrated they were not working with basic principles of Integrated Pest Management.

FINDINGS RELATED TO INFORMATION ACCESS

It was difficult to access school pesticide records. We made repeated phone calls and requests to the independent school districts, over a two-month period of time in some cases, in order to access the information.

Given that we were relatively familiar with SPCB code and pesticide application, this difficulty in receiving information presents a potentially insurmountable obstacle for the average parent.* This concerns us.

* See "Pesticides in Schools: A Parent's Bill of Rights to prepare you for the challenge of finding out what you need to know at your child's school.

Information about emergency treatments and pesticide-related complaints were often not provided as requested. Austin ISD and McAllen ISD reported that there were no complaints. Dallas ISD and Pampa ISD did not provide information about complaints. Paris ISD and Fort Stockton ISD did not document complaints but summarized general concerns about pest management.

Only Conroe ISD enclosed documentation about pesticide-related complaints—one about an application of the pesticide Princep on a football field. One student developed a rash on her knee and swelling around her eyes after practicing in the field.

Efforts to adopt use reporting in Texas

Industries that release toxic chemicals to land, water or air must report those releases to environmental oversight agencies, but these reporting requirements do not currently apply to pesticides.

At this time, The National Center for Food and Agricultural Policy estimates pesticide use in agriculture, but there is virtually no systematic information about non-agricultural uses, such as application to parks, homes, schools, golf courses and highway right-of-ways. Commercial pesticide applicators are required to keep records of pesticide use, but these records do not have to be reported except during on-site inspections by the Structural Pest Control Board. Therefore, there is no agency in Texas that has enough data regarding pesticide use to enforce existing laws for the protection of drinking water quality, human health, food safety and fish and wildlife habitat from pesticide contamination.

The Texas Pesticide Information Network (Texas PIN), a coalition including Texas Center for Policy Studies, Consumers Union Southwest Regional Office and the Texas Clean Water Fund, was formed in 1998 to promote better public understanding of how pesticides are used in Texas and of how pesticide use affects human health and the environment. Texas PIN is working to set up a pesticide use reporting system that will provide the type of information essential for full and effective implementation of laws designed to protect human health and the environment from pesticide contamination.

During the 76th Texas Legislature, two bills related to pesticide use were introduced and supported by Texas PIN. House Bill (HB) 1378 by Representative Elliott Naishtat would have directed the Texas Natural Resource Conservation Commission (TNRCC) and the Texas Department of Agriculture (TDA) to study the feasibility of a pesticide use reporting system for Texas. This bill was left pending after a hearing in the Texas House Natural Resources Committee.

HB 3079, introduced by Representative Edmund Kuempel and co-sponsored by Senator Buster Brown, establishes new requirements for the application of aquatic herbicides to Texas waters. This bill passed both the House and Senate and was signed into law by Governor George Bush. Texas Clean Water Action, several regional and statewide angler organizations, lake management authorities, pesticide manufacturers, drinking water providers and the Texas Parks and Wildlife Department supported HB 3079.

The law requires the Texas Parks and Wildlife Department to develop a statewide aquatic vegetation management plan that follows generally accepted principles of integrated pest management (IPM). The plan must also follow IPM principles and contain provisions for ensuring that any aquatic herbicide application will protect fish and wildlife resources and habitat and will not result in violation of drinking water standards. Under the state plan, lake management authorities and public drinking water providers must receive advance notice of aquatic herbicide applications. In order to accomplish the purposes of the plan, it is likely that these notifications will have to contain specific information on what herbicide is being used, where it is being applied and how much is being used.

DISTRICT-BY-DISTRICT REPORT CARD AND EVALUATION

In evaluating each school district, Consumers Union used a weighted point and penalty system. The first is a toxicity score based on the percent of total applications that used Green List versus Yellow or Red List. We weighted use of Red List products more heavily than Yellow, and Yellow more heavily than Green. A higher score indicates greater use of more toxic substances. In addition, we expect school districts to (1) keep reasonably accurate records, (2) avoid emergency treatments, and (3) avoid using pesticides for cosmetic purposes. If the school district fell below our standard in these three areas, they received 50 points for each, with the possibility of receiving 150 total. If the school district met the standard in all three of these areas, they received no points. The toxicity score was added to this and the totals were ranked using letter grades:

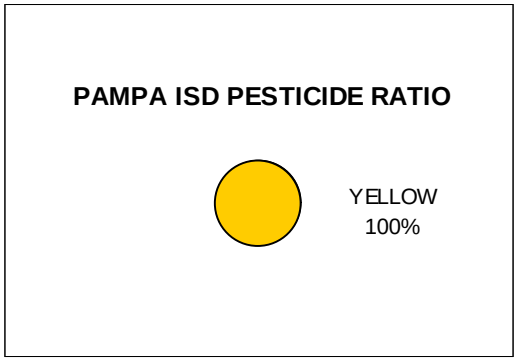
TOTAL SCORE	GRADE
199 or below	A
200-299	B
300-399	C
400-499	D
500 and up	F

State rules provide little guidance regarding pesticide use or its documentation, so it is possible that districts are interested and committed to the IPM process even though their reports do not seem to indicate as such.

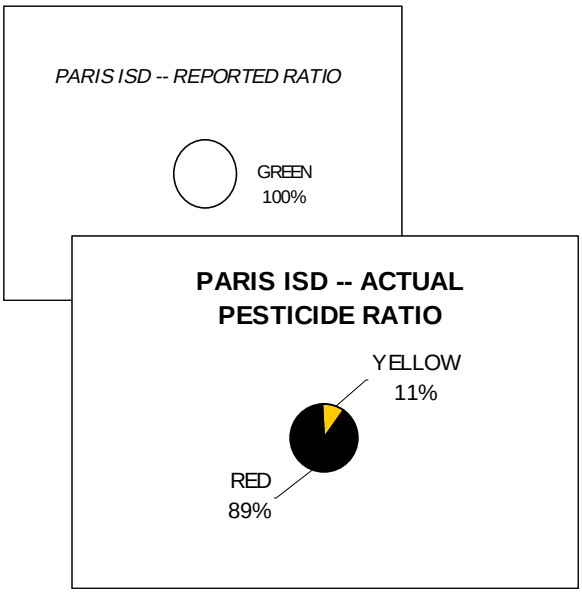
Pampa ISD

Overall Implementation of IPM: D

Toxicity Score:	400
Penalty for Emergency Waivers:	50
Total:	450



During the sample month of September 1998, Pampa ISD used Tempo WP, a Yellow List product, seven times in and around seven of its schools and administrative buildings. All of Pampa's applications of Tempo WP are listed on an emergency waiver form.



Paris ISD

Overall Implementation of IPM: F

Toxicity Score:	756
Documentation Penalty:	50
Total:	806

Paris used Catalyst, Ficam W, and Orthene, all of which are Yellow or Red List products. However, Paris did not indicate them as such—it reported 100 percent Green List use. While Paris in its documentation shows three out of nine treatments to be emergency treatments, they report that the school making the request chose this classification, but it was not handled as an emergency by the maintenance staff.

During the sample month of September 1998, Paris ISD used pesticides in and around six schools and administrative buildings. The total number of applications was nine, with no Green List, one Yellow List, and eight Red List products used—the worst ratio of green to yellow and red.

continued on page 16

Focus on 5 Active Ingredients of Pesticides

GREEN LIST

Pyrethrins

Trade names include Blitz, BP-100, Drione, and PT-565. Pyrethrins are derived from dried chrysanthemum flowers. They have a rapid action designed to quickly paralyze the pest and contain allergens that cross-react with ragweed and other pollens. Pyrethrins are absorbed most easily through ingestion or inhalation. People with asthma can have severe reactions to pyrethrins. Pyrethrins can also cause male reproductive effects by binding with the androgen (a male sex hormone) receptors, disrupting the normal function of the hormone.

Kaplan, Jonathan. "Failing Health: Pesticide Use in California Schools," Californians for Pesticide Reform. 1998, page 27.

GREEN LIST

Abamectin or Avermectin

Abamectin is also known as Avermectin B1a. Trade names include Avert, Ascend, Affirm, Agri-Mek, Avermectin, Avid, MK 936, Vertimec, and Zephyr. Abamectin is classified as toxicity class IV and is an antibiotic derived from the fermentation of the soil bacterium Streptomyces. It acts as an insecticide by affecting the nervous system of and paralyzing insects and is used to control insect and mite pests of citrus, pear, and nut tree crops, and for control of fire ants.

Abamectin is highly toxic to insects and may be highly toxic to mammals as well. Emulsifiable concentrate formulations may cause slight to moderate eye irritation and mild skin irritation. Abamectin acts on insects by interfering with the nervous system. At very high doses, it can affect mammals, causing symptoms of nervous system depression such as incoordination, tremors, lethargy, excitation, and pupil dilation. Very high doses have caused death from respiratory failure. Rats given 0.40 mg/kg/day of abamectin had increased stillbirths, decreased pup viability, decreased lactation, and decreased pup weights. These data suggest that abamectin may have the potential to cause reproductive defects at high enough doses. Abamectin is practically nontoxic to birds, highly toxic to fish and bees, and extremely toxic to aquatic invertebrates.

The EPA has classified Abamectin to have "serious or irreversible" chronic health effects in humans such as cancer or genetic defect, as well as "significant" environmental toxicity (see Appendix C).

ExToxNet, a collaborative project of Cornell University, Oregon State University, the University of Idaho, and the University of California at Davis and the Institute for Environmental Toxicology, Michigan State University. 1999. <http://ace.ace.orst.edu/info/extoxnet/>

YELLOW LIST

Hydramethylnon

Trade names include AC 217,300, Amdro, Combat, Maxforce, and Wipeout. Hydramethylnon is a slightly toxic compound in EPA toxicity class III. Products containing hydramethylnon must bear the Signal Word CAUTION. It is used in baits to control fire ants, leafcutter ants, and cockroaches in both indoor and outdoor applications. It is available in a ready-to-use bait formulation.

Hydramethylnon is slightly toxic via ingestion. Acute exposure in humans may result in irritation of the eyes and mucous membranes of the respiratory tract. It is highly to very highly toxic to fish in laboratory studies, and is of low persistence in the soil environment.

The EPA has classified Hydramethylnon to have "serious or irreversible" chronic health effects in humans such as cancer or genetic defect, as well as "significant" environmental toxicity. The state of California considers Hydramethylnon to be a reproductive toxin (see Appendix C).

ExToxNet, a collaborative project of Cornell University, Oregon State University, the University of Idaho, and the University of California at Davis and the Institute for Environmental Toxicology, Michigan State University. 1999. <http://ace.ace.orst.edu/info/extoxnet/>

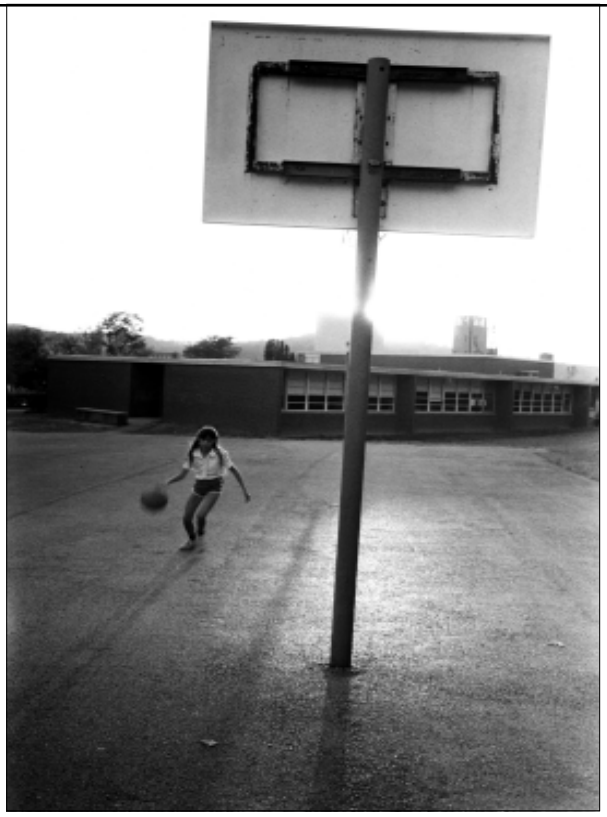
YELLOW OR RED LIST

Cypermethrin

Cypermethrin trade names include Ammo, Cynoff, Demon, NRDC 149, Polytrin, PP 383, Ripcord, Siperin, and Super. Many products containing cypermethrin are classified as Restricted Use Pesticides (RUP) by the EPA because of cypermethrin's toxicity to fish. Restricted Use Pesticides may be purchased and used only by certified applicators. Cypermethrin is classified toxicity class II, with some formulations in toxicity class III. Pesticides containing cypermethrin bear the Signal Word WARNING or CAUTION on the product label.

Cypermethrin is a synthetic pyrethroid insecticide used to control many pests, including moth pests of cotton, fruit, and vegetable crops. It is also used for crack, crevice, and spot treatment to control insect pests in stores, warehouses, industrial buildings, houses, apartment buildings, greenhouses, laboratories, and on ships, railcars, buses, trucks, and aircraft. It is available as an emulsifiable concentrate or wettable powder.

Cypermethrin is a moderately toxic material by dermal absorption or ingestion. Symptoms of high dermal exposure include numbness, tingling, itching, burning sensation, loss of bladder control, incoordination, seizures, and possible death. Pyrethroids like cypermethrin may adversely affect the central nervous system. Symptoms of high-dose ingestion include nausea, prolonged vomiting, stomach pains, and diarrhea which progresses to convulsions, unconsciousness, and coma. Cypermethrin is a slight skin



or eye irritant, and may cause allergic skin reactions. The EPA has classified cypermethrin as a "possible human carcinogen" because available information is inconclusive. Cypermethrin is very highly toxic to fish, aquatic invertebrates and bees.

ExToxNet, a collaborative project of Cornell University, Oregon State University, the University of Idaho, and the University of California at Davis and the Institute for Environmental Toxicology, Michigan State University. 1999. <http://ace.ace.orst.edu/info/extoxnet/>

RED LIST

Chlorpyrifos

Trade names for chlorpyrifos include Dursban, Empire, Lorsban, PT 270, Strikeforce, and Waxie Bug-Off. Chlorpyrifos is toxicity class II. Products containing chlorpyrifos bear the Signal Word WARNING or CAUTION, depending on the toxicity of the formulation. The EPA has established a 24-hour reentry interval for crop areas treated with emulsifiable concentrate or wettable powder formulations of chlorpyrifos unless workers wear protective clothing.

Chlorpyrifos is a broad-spectrum organophosphate insecticide. While originally used primarily to kill mosquitoes, it is no longer registered for this use. Chlorpyrifos is effective in controlling cutworms, corn rootworms, cockroaches, grubs, flea beetles, flies, termites, fire ants, and lice. It is used as an insecticide on grain, cotton, field, fruit, nut and vegetable crops, and well as on lawns and ornamental plants. It is also registered for direct use on sheep and turkeys, for horse site treatment, dog kennels, domestic dwellings, farm buildings, storage bins, and commercial establishments. Chlorpyrifos acts on pests primarily as a contact poison, with some action as a stomach poison. It is available as granules, wettable powder, dustable powder and emulsifiable concentrate.

Chlorpyrifos is moderately toxic to humans and readily absorbed into the bloodstream through the gastrointestinal tract if it is ingested, through the lungs if it is inhaled, or through the skin if there is dermal exposure. Poisoning from chlorpyrifos may affect the central nervous system, the cardiovascular system, and the respiratory system. It is also a skin and eye irritant. Symptoms of acute exposure to organophosphate or cholinesterase-inhibiting compounds may include the following: numbness, tingling sensations, incoordination, headache, dizziness, tremor, nausea, abdominal cramps, sweating, blurred vision, difficulty breathing or respiratory depression, and slow heartbeat. Very high doses may result in unconsciousness, incontinence, and convulsions or fatality. Persons with respiratory ailments, recent exposure to cholinesterase inhibitors, cholinesterase impairment, or liver malfunction are at increased risk from exposure to chlorpyrifos.

Some organophosphates may cause delayed symptoms beginning 1 to 4 weeks after an acute exposure which may or may not have produced immediate symptoms. In such cases, numbness, tingling, weakness, and cramping may appear in the lower limbs and progress to incoordination and paralysis. Improvement may occur over months or years, and in some cases residual impairment will remain. Plasma cholinesterase levels have been shown to be inhibited when chlorpyrifos particles are inhaled, which impairs proper nerve functioning. Repeated or prolonged exposure to organophosphates may result in the same effects as acute exposure including the delayed symptoms. Other effects reported in workers repeatedly exposed include impaired memory and concentration, disorientation, severe depressions, irritability, confusion, headache, speech difficulties, delayed reaction times, nightmares, sleepwalking, and drowsiness or insomnia. An influenza-like condition with headache, nausea, weakness, loss of appetite, and malaise has also been reported.

Chlorpyrifos is moderately to very highly toxic to birds, freshwater fish, aquatic invertebrates and estuarine and marine organisms and its general and aquatic use poses a serious hazard to wildlife and honeybees. It is frequently detected in indoor air, and levels have actually been found to increase over time. The estimated half-life (the period by which half of the product is expected to have broken down) of chlorpyrifos is 30 days, but studies have shown the insecticide can persist up to eight years after application. In 1995, the EPA fined manufacturer DowElanco $876,000 for failing to report to EPA more than 250 incidents involving chlorpyrifos. In January 1997, EPA and DowElanco agreed that the chemical would no longer be allowed for many uses including indoor fogging.

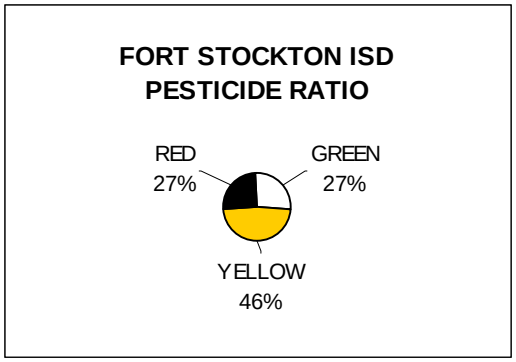
Kaplan, Jonathan. "Failing Health: Pesticide Use in California Schools," Californians for Pesticide Reform. 1998, page 26.

continued from page 13

Fort Stockton ISD

Overall Implementation of IPM: D

Toxicity Score:	427
No Penalties:	-
Total:	427



Fort Stockton used glue traps and Tero Baits in four out of 15 applications, both of which are considered to be Green List. The other 11 applications were Demon, Dursban Pro, and Amdro, which are Red and Yellow List. There were no emergency treatments made.

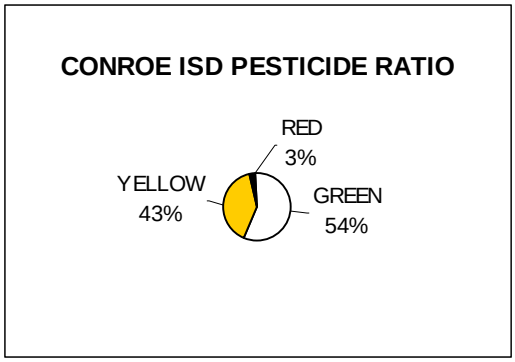
During the sample month of September 1998, Fort Stockton ISD used pesticides in and around 6 schools and administrative buildings. The total number of applications was 15, with four Green List, seven Yellow List, and four Red List products used—a fair to poor ratio of green to yellow/red.

Conroe ISD

Overall Implementation of IPM: C

Toxicity Score:	250
Penalty for Cosmetic Use:	50
Total:	300

Conroe did use Green List products. However, it also used a good number of Yellow and Red List products as well. Red List herbicide Finale was used in three occasions in one month to *burn lines into athletic fields.* Given the scope of Integrated Pest Management mandate for Texas school districts, we did not find this to be a reasonable use for an herbicide. Of all the school districts we sampled, we found this to be the most striking example of poor IPM practice.



During the sample month of September 1998, Conroe ISD used pesticides in and around 39

Hidden Danger: "Inert" Ingredients in Pesticides

Pesticide products contain "active" and "inert" ingredients. Inert ingredients make the active ingredients easier to use and sometimes more potent and are commonly the higher percentage substance of a pesticide—sometimes 99% of the total mass of the product.

Describing these substances as "inert" can be misleading because they are often toxic as well. More than 650 out of an estimated 2,500 inert ingredients have been identified by federal, state or international agencies to be hazardous. At least 382 inert ingredients are currently or once were, registered as active ingredients in pesticides at the U.S. Environmental Protection Agency. Twenty-one of the inert ingredients have been classified as carcinogens, 127 as occupational hazards and 209 as hazardous air or water pollutants. One example of an "inert" ingredient is naphthalene, which is designated a hazardous air pollutant under the Clean Air Act and a priority pollutant under the Clean Water Act.

Because of concerns about toxicity, the U.S. EPA "strongly encourages registrants to substitute or remove" these substances from pesticide products. Under the Food Quality Protection Act, the U.S. EPA is scheduled to examine exemptions now given to "inert" pesticide ingredients. But in the meantime, this report only addresses the "active" ingredients of a pesticide because pesticide companies consider "inert" ingredients to be proprietary information. Just keep in mind that because of unlisted "inert" ingredients, there may be more health effects from pesticide use than we are currently able to study.

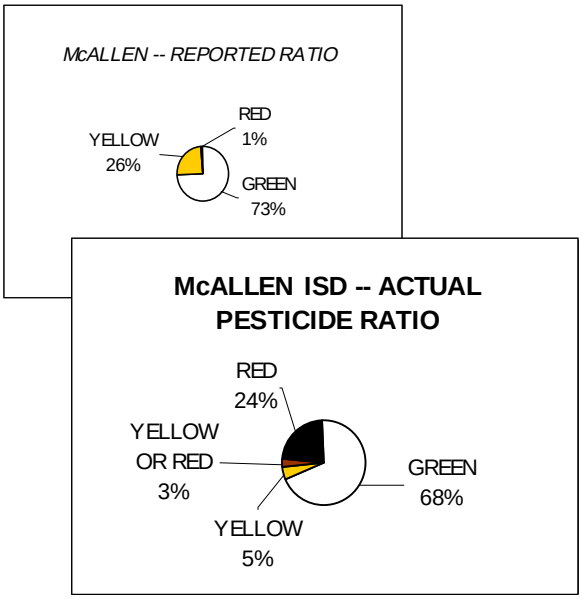
Sources: Northwest Coalition for Alternatives to Pesticides. 1998. Worst Kept Secrets: Toxic Inert Ingredients in Pesticides. Eugene, Oregon; Kaplan, Jonathan et al. 1998. Failing Health: Pesticide Use in California Schools. California Public Interest Research Group Charitable Trust.

schools and administrative buildings. The total number of applications was 117, with 64 Green List, 50 Yellow List, and three Red List products used—not the best ratio of green to yellow and red, but not the worst of the schools sampled, either. Conroe provided excellent documentation of their applications (the best of all schools districts), often including the EPA registration number, active ingredient of pesticides used, and application technique—details that we believe should be required on all standard forms.

McAllen ISD

Overall Implementation of IPM: B

Toxicity Score:	298
No Penalties:	-
Total:	298



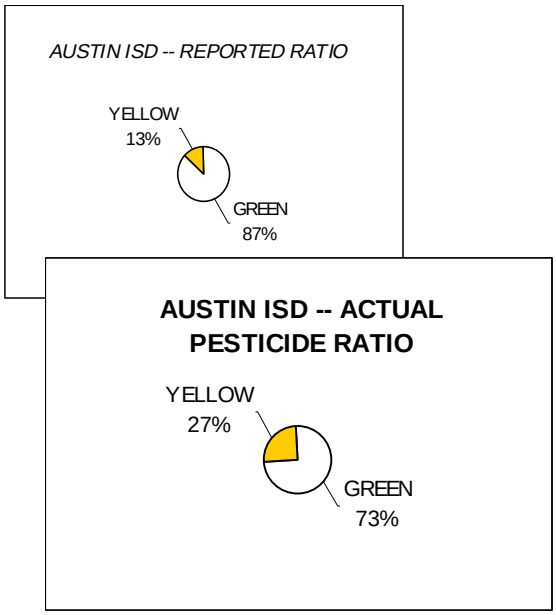
McAllen used Yellow/Red List product All Pro Dursban 2 E i frequently, as well as Red List product Dragnet T C for termites. However, its records also show widespread use of a number of Green List pesticides as well.

During the sample month of September 1998, McAllen ISD used pesticides in and around 42 schools and administrative buildings. The total number of applications was 152, with 102 Green List, two that are either Green or Yellow List, six Yellow List, five that are either Yellow or Red List, 36 Red List, and one unknown. McAllen's own reporting of its green/yellow/red ratios had a higher ratio of Green and Yellow List and included the identification of only one Red List product.

Austin ISD

Overall Implementation of IPM: A

Toxicity Score:	181
No Penalties:	-
Total:	181



Austin demonstrated by far the best record for IPM management. There was a high ratio of Green List use to Yellow List use. There were no Red List products used or emergencies declared.

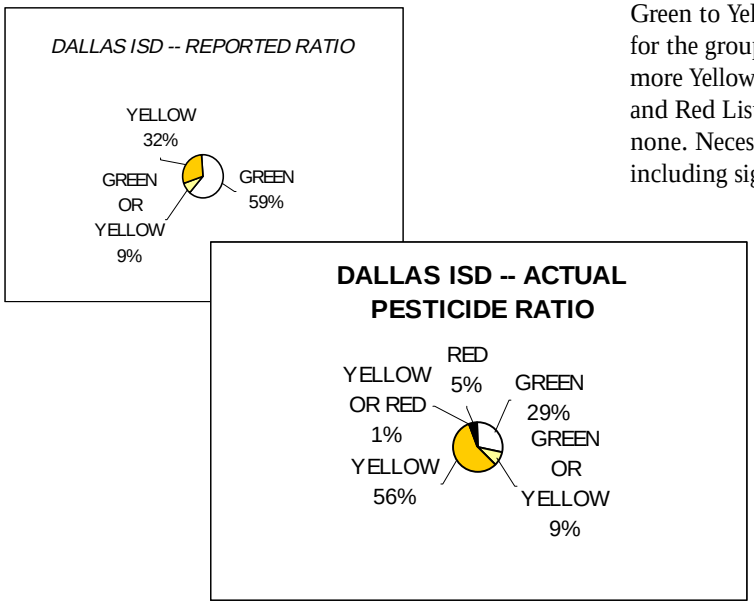
The only Yellow List product used regularly was PT-515 Waspfreeze, with an occasional application of Yellow List product Roundup. Austin used a number of recognized IPM products that no other independent school district documented, such as IPM foam and hardware cloth.

During the sample month of September 1998, Austin ISD used pesticides in and around 77 buildings. The total number of applications made was 262, with 191 Green List, 71 Yellow List products used. Austin's own reporting gave a somewhat higher Green List use.

Dallas ISD

Overall Implementation of IPM: C

Toxicity Score:	321.5
Penalty for Emergency Waivers:	50
Total:	371.5



Dallas had the worst record for number of emergencies declared and problematic records. Ten percent and possibly many more were considered to be emergencies. Information was often incomplete, illegible, and/or contradictory. The ratio of Green to Yellow List products was below average for the group that was sampled. We found much more Yellow List product use than Dallas reported, and Red List product use where Dallas reported none. Necessary supporting documentation, including signatures, was often missing from the Yellow List product application paperwork.

During the sample month of September 1998, Dallas ISD used pesticides in and around 205 schools and administrative buildings. The total number of applications was 566, with 163 Green List, 48 Green or Yellow List, 320 Yellow List, four Yellow or Red List, 28 Red List, and three unknown products used.

More about Organophosphates and Carbamates

Organohphosphates as a class of insecticides have been linked with cancer, including Non-Hodgkin's lymphoma, leukemia, and lung cancer. In children, organophosphates have been linked to aplastic anemia, which is the failure of the bone marrow to produce blood cells, and leukemia.

Children with asthma may have severe reactions to organophosophates in particular. Carbamates and organophosphates have been linked with fetal death, hormonal changes, DNA damage, birth defects, and abnormal sperm, ovaries, and eggs.

All Texas school districts surveyed used organophosphates and/or carbamates.

ORGANOPHOSPHATES

Chlorpyrifos (Dursban, Trapper)
Conroe, Dallas, Fort Stockton, McAllen, Pampa ISDs

Acephate (Orthene, PT 280)
Conroe, Dallas, Paris ISDs

Propetamphos (Catalyst)
Paris ISD

Trichlorfon (Larva Lur)
Austin, Dallas ISDs

CARBAMATES

Bendiocarb (Ficam W)
Paris ISD

Fenoxycarb (Award)
Conroe, Dallas ISDs

Propoxur (PT 250)
Dallas ISD

Sources: Zahm, Shelia Hoar et al. "Pesticides and Cancer," *Occupational Medicine: State of the Art Reviews*, Hanley & Belfus, Inc., 1997. Page 279. Californians for Pesticide Reform, "Health Effects of Pesticides," Pages 1-2. See also: Moses, Marion, Designer Poisons: How to Protect Your Health and Home from Toxic Pesticides, Pesticide Education Center, San Francisco, CA, 1995.

What Other States Are Doing

As of 1998, thirty states have adopted some kind of regulation regarding the protection of children from pesticides around schools. Sixteen states specifically address the use of pesticides inside of schools. There are now efforts underway in a number of states that do not have an IPM program or pesticide regulation in schools to adopt new laws.

Number of states that have made laws requiring:

Pesticide-free buffer zones around school property: 6

Posting of signs for indoor school applications of pesticides: 10

Posting of signs for pesticide applications on school grounds: 22

Notification of students and/or employees of the school before a pesticide application occurs: 9

Restrictions in the type and timing of pesticide applications in schools: 7

Adopting Integrated Pest Management policy for schools: 5

In March 1999, the Los Angeles Unified School District adopted a new pest control policy that calls for the practice of Integrated Pest Management. It is considered to be one of the most comprehensive in the country and calls for the elimination of the use of chemical pesticides.

The new policy statement of the Los Angeles Unified School District summarizes the goals of a good school IPM program as follows:

"Pesticides pose risks to human health and the environment, with special risks to children. It is recognized that pesticides cause adverse health effects in humans such as cancer, neurological disruption, birth defects, genetic alteration, reproductive harm, immune system dysfunction, endocrine disruption and acute poisoning. Pests will be controlled to protect the health and safety of students and staff, maintain a productive learning environment and maintain the integrity of school buildings and grounds. Pesticides will not be used to control pests for aesthetic reasons alone. The safety and health of students, staff and the environment will be paramount.

"Further, it is the goal of the District to provide for the safest and lowest risk approach to control pest problems while protecting people, the environment and property. The District's IPM Policy incorporates focusing on long-term prevention and will give non-chemical methods first consideration when selecting appropriate pest control techniques. The District will strive to ultimately eliminate the use of all chemical controls."

Also in March of this year, six Wisconsin schools were chosen to work with the Wisconsin Department of Agriculture, Trade and Consumer Protection and the University of Wisconsin's Extension Service specialists to learn how to practice IPM. In addition to the six pilot schools, 10 other schools and school districts have volunteered to test a pest management manual created for this project. In 2000, the project will expand to include 25 more schools and school districts and the Department will distribute a pest management manual to all Wisconsin schools.

In June, the state of Connecticut passed a bill requiring that all parents and teachers be notified of their school's pest control policy at the beginning of the year, and that they have the option to sign up for receiving notice 24 hours in advance. In support of the passage of this bill, 13 groups in Connecticut formed a coalition for the reduction of pesticide use.

The Healthy Schools Act of passed the California Senate Environmental Quality Committee in July 1999 after heated debate and expected to be considered by the Senate Appropriations Committee in late August. The bill bans several categories of pesticides from use in school, including pesticides identified by US EPA as carcinogens, Category I and II acute toxins (which are listed as allowable Red List products in Texas).

Sources:
National Coalition Against the Misuse of Pesticides. "Pesticides and You. The Schooling of State Pesticide Laws: Review of State Pesticide Laws Regarding Schools." 1998, Volume 18, Number 3. Pages 9-22.
The Los Angeles Times. March 24, 1999. Californians for Pesticide Reform. CHECNET-FORUM.

CONCLUSIONS AND RECOMMENDATIONS

Although we reviewed only seven school district programs, the results indicate that Texas schools may not be adequately implementing IPM. A number of changes are needed to make schools safer for children.

- Mandate types of pesticides to be used, and restrict use of highly toxic pesticides. Create a product or chemical list of acceptable pesticides to give all school districts clear guidance.

- Remove the emergency clause. There is not enough evidence to show that schools need an emergency clause. And given that it may be invoked at the school's discretion, there is much room for abusing the clause.

- Eliminate pesticide applications when children are in school. Ten- to fifty-foot buffers will not adequately protect children and undermine the law, creating a situation where pesticide applicators decide when and where to apply pesticides at their convenience rather than for the safety of the children.

- Prohibit regularly scheduled, or "calendar," pesticide applications as part of IPM. Though we couldn't make conclusions on one month of data, we think it is possible that a few districts we surveyed are spraying pesticides on a regularly scheduled basis.

- Reclassify the Green List so that it does not include all insect growth regulators, botanical insecticides, baits in "tamper-resistant containers or for crack and crevice placement," and microbe-based insecticides. The pesticide Award, for example, is considered to be on the Green List even though it contains fenoxycarb, which the EPA has classified to be a toxic chemical with "serious or irreversible" chronic health effects on humans such as cancer or genetic defect. The microbe-based insecticide Avermectin (in the pesticides Avert) is also on the Green List even though it has the same EPA classification for its toxicity.[29]

- Require schools to use standard reporting formats issued by the SPCB for all school districts to follow, including:
  - chemical name
  - active ingredient
  - chemical company name
  - EPA registration number
  - description of the pest problem (that includes numbers of pests or other indicators of pest populations)
  - justification for use
  - percent solution (when applicable) and amount used
  - application technique
  - application site or area
  - (if Yellow or Red List) approval form or notation of when the approval form was issued and how many applications have been made since

Policy will need to drive schools towards a more comprehensive practice of the principles of IPM if it is to take place. It is evidently not happening as a matter of course.

In general, we recommend that the Texas Structural Pest Control Board:

- Conduct a statewide assessment of all school districts. The information we collected indicates that a more thorough look is necessary.

- Ensure that IPM Coordinators in all school districts are adequately trained. If trainers and resources already available from Texas Agricultural Extension are not adequate, we advise that the pest control board develop a program to further train district coordinators in IPM.

- Develop materials and policies that support school districts in educating other staff, teachers and parents about the effectiveness of IPM.

Consumers Union also believes the public should be better informed and educated about IPM and pesticide use in their schools and communities. As evidence mounts regarding the cumulative effect of pesticides in our air, water, food, parks, and buildings, and the intensified effects of pesticides upon children, it is critical that we understand the risks of pesticides and know how to make our children and our lives safer.

ENDNOTES

[1] April 1990, 4th edition, 2OT-1003.

[2] Kaplan, Jonathan et al. "Failing Health: Pesticide Use in California Schools." California Public Interest Research Group Charitable Trust. 1998. Page 4.

[3] U.S. Environmental Protection Agency. "The EPA Children's Environmental Health Yearbook." Chapter 5, Health Effects of Pesticides. August 1998. See also: Buckley, J.D. et al. "Occupational Exposures of Parents of Children with Acute Nonlymphocytic Leukemia: A Report from the Children's Cancer Study Group." *Cancer Research*. 1989. Volume 49, Pages 4030-4037. Lowengart, R.A. et al.. "Childhood Leukemia and Parents' Occupation and Home Exposures." *Journal of National Cancer Institute.* 1987. Volume 79, Pages 39-46.

[4] U.S. Environmental Protection Agency. "The EPA Children's Environmental Health Yearbook." Chapter 5, Health Effects of Pesticides. August 1998. See also: David, J.R. et al. Family Pesticide Use and Childhood Brain Cancer. *Archive of Environmental Contamination and Toxicology.* 1993. Volume 24, Pages 87-92. Gold, E. et al. "Risk Factors for Brain Tumors in Children." *American Journal of Epidemiology.* 1979. Volume 109, Pages 309-319. Olshan, A.F. et al. "Risk Factors for Wilm's Tumor: Report from the National Wilm's Tumor Study." *Cancer.* 1993. Volume 72, Pages 938-944.

[5] Kaplan, Jonathan et al. "Failing Health: Pesticide Use in California Schools." California Public Interest Research Group Charitable Trust. 1998. Page 2. See also: Ries, L., edited by Harras, A. "Cancer Rates and Risks," National Institutes of Health Publication No. 96-691, May 1996; American Cancer Society. "Cancer Facts and Figures." Oakland, CA. 1996.

[6] Gurney, James G. et al. "Trends in Cancer Incidence Among Children in the U.S." *Cancer.* August 1, 1996. Vol. 78, No. 3, Page 532.

[7] Center for Health, Environment, and Justice. "Reducing Children's Environmental Health Risks." Page 3.

[8] Bryant, D.H. "Asthma Due to Insecticide Sensitivity." *Australian and New Zealand Journal of Medicine.* 1985. Volume 15, Pages 66-68; Royce, Sara et al. "Occupational Asthma in a Pesticides Manufacturing Worker." *Chest.* 1993. Volume 103, No. 1, Pages 295-296. Studies have also linked asthma to the presence of roaches. However, when properly implemented, IPM can prevent exposure to both pesticides and roaches, and is more effective than the use of pesticides because insects build resistance to the chemicals in pesticides.

[9] U.S. Environmental Protection Agency. "The EPA Children's Environmental Health Yearbook." Chapter 5, Health Effects of Pesticides. August 1998. See also: National Research Council. *Pesticides in the Diets of Infants and Children*. Washington, DC: National Academy Press. 1993. U.S. EPA. *Office of Pesticide Programs Annual Report for 1996.* Publication Number, EPA 735-R-96-001. 1996. U.S. Environmental Protection Agency. Longnecker, M.P., W.J. Rogan, and G. Lucier. "The Human Health Effects of DDT (Dichlorodiphenyltrichloroethane) and PCBs (Polychlorinated biphenyls) and an Overview of Organochlorines in Public Health." *Annual Review of Public Health*. 1997. Volume 18, Pages 211-244.

[10] National Parent Teachers Association. Position Statement: the Use of Pesticides in Schools and Day Care Centers. Ed Stermer, Environmental Program Coordinator, National Parent Teachers Association.

[11] Aspelin, Arnold, *U.S. EPA. Pesticides Industry Sales and Usage: 1994 and 1995 Market Estimates.* Office of Prevention, Pesticides and Toxic Substances, Biological and Economic Analysis Division. Washington, DC. August 1997. Pages 2-3.

[12] Simcox, Nancy J. et al. "Pesticides in Household Dust and Soil Exposure Pathways for Children of Agricultural Families." *Environmental Health Perspectives*. December 1995. Volume 103, Number 12, Page 1129.

[13] Mott, Lawrie et al. "Our Children at Risk: The 5 Worst Environmental Threats to Their Health." Natural Resources Defense Council. 1997. Chapter 5, Pesticides. <http://www.nrdc.org/nrdcpro/fppubl.html>. See also: National Research Council. Pesticides in the Diets of Infants and Children. Washington, D.C.: National Academy Press, Page 61.

[14] Fialka, John. "More Clinical Tests of Humans Exposed to Chemicals Are Urged in U.S. Study." *Wall Street Journal*. August 4, 1999. Section A, Page 3.

[15] Mott, Lawrie et al. "Our Children at Risk: The 5 Worst Environmental Threats to Their Health." Natural Resources Defense Council. 1997. Chapter 2, Children's Special Vulnerability to Environmental Risks. <http://www.nrdc.org/nrdcpro/fppubl.html>.

[16] U.S. EPA. Headquarters Press Release, "EPA Acts to Reduce Children's Exposures to Two Older, Widely Used Pesticides." Washington, DC. August 2, 1999.

[17] 72nd Texas Legislature, Regular Session. House Bill 853. 1991.

[18] Tex. Civ. Stat. Ann. Art. 135b-6, Sec. 4J(b).

[19] 22 Tex. Admin. Code § 595.11(d).

[20] 22 Tex. Admin. Code § 595.11(a) and (b).

[21] 22 Tex. Admin. Code § 595.11(e) and (f).

[22] 22 Tex. Admin. Code § 595.11(a), (b) and (h).

[23] Tex. Civ. Stat. Ann. Art. 135b-6, Sec. 4J (e).

[24] 22 Tex. Admin. Code § 595.11(c).

[25] 22 Tex. Admin. Code § 595.11(f).

[26] 22 Tex. Admin. Code § 595.11(a) and (b).

[27] Tex. Civ. Stat. Ann. Art. 135b-6, Sec. 4J(d).

[28] 22 Tex. Admin. Code § 595.11(h).

[29] U.S. EPA. Addition of Certain Chemicals; Toxic Chemical Release Reporting; Community Right-to-Know; Final Rule. November 30, 1994. Table 1.—Chemicals Being Added to the to the EPCRA Section 313 List. Federal Register.

APPENDIX A

Methodology: How We Determined Pesticide Use Statistics

School districts provided information regarding the toxicity category of pesticides used, but we discovered that these were not always accurate. Consumers Union independently verified the toxicity of each chemical.

We charted all of the pesticides used, noting the amounts used and the school district's reporting of color list. Then we verified the color list category using an online U.S. Environmental Protection Agency (EPA)/ California Department of Pesticide Regulation (CDPR) Product/Label Database. Using brand and formulation information, we looked up product information with the EPA using the registration number to determine its toxicity category.

If the district reported the brand but not the formulation, we looked up all the formulations to determine whether there was a consistent toxicity rating. When there wasn't we used the range of toxicity.

Using this method, we were able to pinpoint the toxicity of most products reported. One district did not report either the brand or the formulation of "bait blocks," so reviewed the range of possible active ingredients and estimated the toxicity range. In a few cases (Catalyst, Sting Wasp Spray, Advance Ant Bait), we didn't find the product in the EPA database, but did find it in the CDPR online database. In that case, we took the active ingredients listed in the CDPR database and used an online service, created collaboratively by five universities, called ExToxNet to determine the toxicity categories. A product used once in the Dallas Independent School District called 5161 Wasp and Hornet was determined to be Crown 5161 Wasp and Hornet Killer, listed with a CAUTION label. Even though CDPR advises their information applies to California regulations only, we found it to be so consistent with EPA that we applied their information in this instance.

The hardest category to define was the Green List because it contains a range of pesticides including exceptions that would otherwise classify as Yellow or Red List. We researched all the active ingredients to separate out the inorganic and botanical pesticides, insect growth regulators, and microbe-based insecticides and included them in Green List use. If the school district's paperwork made explicit reference to baits used in a station, unit form, or tamper resistant container or products used in cracks and crevices, we counted the pesticide usage as Green List. Otherwise, we classified the product based solely on its toxicity rating.

APPENDIX B

Resources

Regulatory Agencies

- Texas Structural Pest Control Board
  http://www.spcb.state.tx.us
- U.S. Environmental Protection Agency
  http://www.epa.gov
  Office of Pesticide Programs
  http://www.epa.gov/pesticides
  Office of Children's Health Protection
  http://www.epa.gov/children
  Pesticide Data Sources
  http://www.epa.gov/opp00001/products.htm
  401 M Street SW
  Washington, DC 20460
- California Department of Pesticide Regulation
  http://www.cdpr.ca.gov
  Product/Label Database Queries
  http://www.cdpr.ca.gov/docs/label/labelque.htm
  Chemical Ingredients Queries
  http://www.cdpr.ca.gov/docs/monster/monster.htm

Non-Governmental Organizations

- Texas Center for Policy Studies/Texas Pesticide Information Network
  http://www.texascenter.org/txpin
  P.O. Box 2618
  Austin, TX 78768
  (512) 474-0811 (phone)
  (512) 474-7846 (fax)
- Texans for Alternatives to Pesticides
  3015 Richmond, Suite 200
  Houston, TX 77098
  (713) 523-2TAP (2827)
- Consumers Union
  http://www.consumersunion.org
  Papers and analyses related to pesticide policy and the Food Quality Protection Act
  http://www.ecologic-ipm.com
  Consumers Union
  Southwest Regional Office
  1300 Guadalupe, Suite 100
  Austin, Texas 78701
  (512) 477-4431 (phone)
  (512) 477-8934 (fax)
- Northwest Coalition for Alternatives to Pesticides
  http://www.efn.org/~ncap
  P.O. Box 1393
  Eugene, OR 97440
  (541) 344-5044 (phone)
  (541) 344-6923 (fax)
  info@pesticide.org (email)
- Center for Health, Environment and Justice
  Publisher of a parent's guide and slide show presentation for reducing children's environmental health risks
  P.O. Box 6806
  Falls Church, VA 22040
  (713) 237-2249 (phone)
  cchw@essential.org (email)
- Californians for Pesticide Reform
  http://www.igc.org/cpr
  116 New Montgomery, Suite 800
  San Francisco, CA 94105
  (415) 981-3939 or (888) CPR-4880
  pests@igc.org (email)
- Environmental Working Group www.ewg.org
  EWG's interactive database on pesticides in foods: www.foodnews.org
  1718 Connecticut Ave. NW Suite 600
  Washington, DC 20009
  (202) 667-6782 (phone)
  (202) 232-2592 (fax)
  info@ewg.org (email)
- National Parent Teacher Association
  http://www.pta.org
  3300 N. Wabash Street, Suite 2100
  Chicago, IL 60611-3690
  (312) 670-6782 (phone)
  (312) 670-6783 (fax)
- National Coalition Against the Misuse of Pesticides
  http://www.ncamp.org
  701 E Street, SE
  Washington, DC 20003
  (202) 543-5450 (phone)
  (202) 543-4791 (fax)
  ncamp@ncamp.org (email)
- Children's Environmental Health Network
  http://www.cehn.org
  5900 Hollis Street, Suite E
  Emeryville, CA 94608
  (510) 450-3818 x 117 (phone)
  (510) 450-3773 (fax)
  cehn@aimnet.com (email)
- Natural Resources Defense Council
  http://www.nrdc.org
  40 West 20th St.
  New York, NY 10011
  (212) 727-2700 (phone)
  nrdcinfo@nrdc.org (email)

Other Information

- ExToxNet http://ace.orst.edu/info/extoxnet
  Pesticide Information Profiles
  http://ace.ace.orst.edu/info/extoxnet/pips/ghindex.html
  Pesticides Classified by Group
  http://ace.orst.edu/cgi-bin/mfs/01/tibs/pestgrp.htm
- Chemfinder http://www.chemfinder.com/
- National Pesticide Telecommunications Network
  1-800-858-7378 (PEST)
- Organic Consumers Organization
  http://www.organicconsumers.org/

APPENDIX C

Pesticides Used by Texas ISDs Surveyed

PRODUCT	AUSTIN	CONROE	DALLAS	FT. STOCK	MCALLEN	PAMPA	PARIS	TYPE	LABEL	LIST	ACTIVE INGREDIENT
5161 wasp and hornet			x					Insecticide	CAUTION	Yellow	phenothrin[b,c], tetramethrin[b,c]
Advance Ant Bait	x							Insecticide	CAUTION	Yellow	sulfluramid, avermectin[b,c]
All Pro Dursban 2 E I					x			Insecticide	WARNING	Red	chlorpyrifos[d]
Amdro				x				Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Avert		x	x		x			Microbe-based Insecticide	CAUTION	Green	avermectin[b,c]
Award		x	x					Insect Growth Regulator	CAUTION	Green	fenoxycarb[b,d]
Award Ant Bait			x					Insect Growth Regulator	CAUTION	Green	fenoxycarb[b,d]
Award Bait			x					Insect Growth Regulator	CAUTION	Green	fenoxycarb[b,d]
Award Granules			x					Insect Growth Regulator	CAUTION	Green	fenoxycarb[b,d]
Award Hut?			x					Insect Growth Regulator	CAUTION	Green	
Bait Blocks			x						CAUTION	Yellow	varied chemicals
Boric Acid			x					Inorganic Fungicide, Insecticide	CAUTION	Green	boric acid
Borid Dust			x					Inorganic Fungicide, Insecticide		Green	boric acid
Catalyst							x	Insecticide	WARNING	Red	propetamphos[b,d]
Catchmaster 72-MB	x									Green	
Catchmaster Insect Monitor	x									Green	
Commodore			x							Green	
Conquer			x					Insecticide	CAUTION	Yellow	esfenvalerate
Contrac			x					Rodenticide	CAUTION	Yellow	bromadiolone
Contrac Bloks	x		x					Rodenticide	CAUTION	Yellow	bromadiolone
Contrac Super Size Blox	x							Rodenticide	CAUTION	Yellow	bromadiolone
Demand CS	x							Insecticide	CAUTION	Yellow	lambda cyhalothrin
Demon			x	x				Insecticide	WARNING	Red	cypermethrin[f]
Demon W/P			x					Insecticide	WARNING	Red	cypermethrin[f]
Dragnet			x					Insecticide	CAUTION	Yellow	permethrin[b,c]
Dragnet T C					x			Insecticide	CAUTION	Yellow	permethrin[b,c,] piperonyl butoxide[c], esfenvalerate
Drione insecticide					x			Insecticide	CAUTION	Yellow	pyrethrins, piperonyl butoxide[c]
Dual Choice		x						Insecticide	CAUTION	Yellow	sulfuramid
Dursban			x					Insecticide	CAUTION-WARNING	Yellow or Red	chlorpyrifos[d]
Dursban 50			x					Insecticide	WARNING	Red	chlorpyrifos[d]
Dursban 50W			x					Insecticide	WARNING	Red	chlorpyrifos[d]
Dursban Lo?		x						Insecticide	WARNING	Red	xylene range aromatic solvent, chlorpyrifos[d]
Dursban Pro				x				Insecticide	CAUTION	Yellow	chlorpyrifos[d]
Dursban Suspend			x					Insecticide	CAUTION	Yellow	deltamethrin
Ficam W							x	Insecticide	WARNING	Red	bendiocarb[b,c,d]
Finale		x						Herbicide	CAUTION-WARNING	Yellow or Red	glufosinate-ammonium
Fleupow/p?			x							?	?
Generation					x			Rodenticide	CAUTION-WARNING	Yellow or Red	difethialone
Gentrol-Pt. Source	x							Insect Growth Regulator	CAUTION	Green	hydroprene
Glue Boards			x							Green	
Glue Traps			x	x	x					Green	
Glyfos			x					Herbicide	CAUTION-WARNING	Yellow or Red	glyphosate[d], isopropylamine salt
Goldstick with sex attractant	x									Green	
Hardware Cloth	x									Green	
Hornet and Wasp Kill		x						Insecticide		?	
IPM Foam	x									Green	
Large Maxforce			x					Insecticide	CAUTION	Yellow	fipronil
Larva Lur	x		x					Insecticide	CAUTION	Yellow	trichlorfon[d]
Lo Line		x								Green	
Manage		x						Herbicide	CAUTION	Yellow	halosulfuron
Maxforce			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce 1.5		x						Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]

[a] ***"significant" acute human toxicity*** [b] ***cancer or teratogenicity or "serious or irreversible" chronic health effect*** [c] ***"significant" environmental toxicity*** [d] ***organophosphate or carbamate***
[e] ***reproductive toxicity*** [f] ***possible human carcinogen***

PRODUCT	AUSTIN	CONROE	DALLAS	FT. STOCK	MCALLEN	PAMPA	PARIS	TYPE	LABEL	LIST	ACTIVE INGREDIENT
Maxforce Ant (A)			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Ant Bait					x			Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Ant Bait Station	x							Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e], fipronil
Maxforce AR			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Granular Bait (Ants)	x	x						Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Roach (R)			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Roach Bait					x			Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Roach Bait Gel	x							Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Maxforce Roach Bait Station	x							Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Mouse Snap Traps	x									Green	
MSMA					x			Herbicide	CAUTION	Yellow	MSMA
Niban FG					x			Inorganic Insecticide	CAUTION	Green	boric acid
Niban Roach Bait	x							Inorganic Insecticide	CAUTION	Green	boric acid
Organic Plus	x							Botanical Insecticide	CAUTION	Green	pyrethrins, piperonyl butoxide[c]
Orthene		x					x	Insecticide	CAUTION	Yellow	acephate[b,d]
PT 240			x					Inorganic Insecticide	CAUTION	Green	boric acid
PT 240 Permadust			x					Inorganic Insecticide	CAUTION	Green	boric acid
PT 250 Orthene			x					Insecticide	WARNING	Red	propoxur[d]
PT 280		x	x					Insecticide	CAUTION	Yellow	acephate[b,d]
PT 515 Wasp Freeze	x	x	x					Insecticide	CAUTION	Yellow	phenothrin[b,c], d-trans-allethrin[b]
PT 565 Plus?			x					Insecticide	CAUTION	Yellow	piperonyl butoxide[c]
PT 565 Pyrethrins	x		x					Insecticide	CAUTION	Yellow	piperonyl butoxide[c]
PT-310 Avert Dust	x							Microbe-based Insecticide	CAUTION	Green	avermectin[b,c]
PT-320 Avert Bait Gel	x							Microbe-based Insecticide	CAUTION	Green	avermectin[b,c]
PT-370 Ascend	x							Microbe-based Insecticide	CAUTION	Green	avermectin[b,c]
Rat Snap Traps	x									Green	
Rat Sorb			x							Green	
Roundup					x			Herbicide	CAUTION-WARNING	Yellow or Red	glyphosate[d], isopropylamine salt
Roundup Liquid	x							Herbicide	CAUTION-WARNING	Yellow or Red	glyphosate[d], isopropylamine salt
Seige			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Seige Gel			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Seige Gel Bait			x					Insecticide	CAUTION	Yellow	hydramethylnon[b,c,e]
Silicone Caulk			x							Green	
Simitar		x						Insecticide	CAUTION	Yellow	lambda cyhalothrin
Sting Wasp Spray					x			Insecticide	CAUTION	Yellow	resmethrin[b,c,e], petroleum hydrocarbons
Stuff-It	x									Green	
Suspend			x					Insecticide	CAUTION	Yellow	deltamethrin
Talon G		x						Rodenticide	CAUTION	Yellow	brodifacoum
Tempo			x					Insecticide	CAUTION	Yellow	cyfluthrin[b,c]
Tempo WP		x	x			x		Insecticide	CAUTION	Yellow	cyfluthrin[b,c]
Tero Baits				x						Green	
Terrimark		x								Green	
Trapper		x						Insecticide	CAUTION	Yellow	piperonyl butoxide[c], petroleum distillates, chlorpyrifos[d]
Trimec					x			Herbicide	CAUTION-DANGER	Yellow or Red	dicamba[b], dimethylamine salt
Victor Flying Insect Trap	x									Green	
Wasp and Hornet			x					Insecticide	CAUTION	Yellow	
Wasp Freeze		x	x					Insecticide	CAUTION	Yellow	phenothrin[b,c], d-trans-allethrin[b]
?B 80-xtra					x				?		

[a] ***"significant" acute human toxicity*** [b] ***cancer or teratogenicity or "serious or irreversible" chronic health effect*** [c] ***"significant" environmental toxicity*** [d] ***organophosphate or carbamate***
[e] ***reproductive toxicity 'possible human carcinogen***

Sources: a,b,c--U.S. EPA. Addition of Certain Chemicals; Toxic Chemical Release Reporting; Community Right-to-Know; Final Rule. November 30, 1994. Table 1.--Chemicals Being Added to the EPCRA Section 313 List. Federal Register. d,f--ExToxNet. 1999. <ace.ace.orst.edu/info/extoxnet/> e--State of California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. June 18, 1999.

APPENDIX D

Pesticide Use Statistics by School District

Pampa ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Tempo WP	3.5 gal	CAUTION	cyfluthrin	7	Yellow	Yellow
			TOTAL # APS.	**7**	**TOTAL Green=0**	**TOTAL Green=0**
					TOTAL Yellow=7	**TOTAL Yellow=7**
					TOTAL Red=0	**TOTAL Red=0**

Paris ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Catalyst	14 gal	WARNING	propetamphos	6	Green	Red
Ficam W	6 gal	WARNING	bendiocarb	2	Green	Red
Orthene	4 gal	CAUTION	acephate	1	Green	Yellow
			TOTAL # APS.	**9**	**TOTAL Green = 9**	**TOTAL Green =0**
						TOTAL Yellow = 1
						TOTAL Red = 8

Fort Stockton ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Amdro	33 oz	CAUTION	hydramethylnon	5	Yellow	Yellow
Demon	2.25 gal	WARNING	cypermethrin	4	Red	Red
Dursban Pro	32 oz	CAUTION	chlorpyrifos	2	Yellow	Yellow
Glue traps	7			2	Green	Green
Tero baits	10			2	Green	Green
			TOTAL # APS.	**15**	**TOTAL Green=4**	**TOTAL Green=4**
					TOTAL Yellow=7	**TOTAL Yellow=7**
					TOTAL Red=4	**TOTAL Red=4**

Conroe ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Avert Roach Bait	40 oz	CAUTION	avermectin	2	Green	Green
Award Ant Bait	35 oz	CAUTION	fenoxycarb	11	Green	Green
Dual Choice	31 stations	CAUTION	sulfuramid	15	Green	Green
Dursban Pro	26.33 oz	CAUTION	chlorpyrifos	1	Yellow	Yellow
Finale	6 qts	WARNING	glufosinate-ammonium	3	Red	Red
Hornet & Wasp Killer	1 oz	CAUTION	tetramethrin	1	Yellow	Yellow
Lo Line Monitors	125 monitors	?	?	24	Green	Green
Manage	2.66 oz	CAUTION	glyphosate, isopropylamine salt	1	Yellow	Yellow
Max Force 1.5 roach	10 stations	CAUTION	hydramethylnon	3	Green	Green
Max Force gran. bait	47 oz	CAUTION	hydramethylnon	18	Yellow	Yellow
Orthene dust	33 oz	CAUTION	acephate	10	Yellow	Yellow
PT 280	56 oz	CAUTION	acephate	1	Yellow	Yellow
PT 515 Wasp Freeze	78 oz	CAUTION	tetramethrin	12	Yellow	Yellow
Scimitar	128 oz	CAUTION	lambda cyhalothrin	2	Yellow	Yellow
Talon G Rodent Bait	4 packs	CAUTION	brodifacoum	1	Yellow	Yellow
Tempo WP	8 grams	CAUTION	brodifacoum	3	Yellow	Yellow
Terramark	60 oz	?		3	Green	Green
Trapper		?		3	Green	Green
None				3	Green	Green
			TOTAL # APS.	**117**	**TOTAL Green=64**	**TOTAL Green=64**
					TOTAL Yellow=50	**TOTAL Yellow=50**
					TOTAL Red=3	**TOTAL Red=3**

McAllen ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Avert Roach Bait	189 grams	CAUTION	avermectin	60	Green	Green
All Pro Dursban 2 E	327 oz	WARNING	chlorpyrifos	35	Yellow	Red
Dragnet T C	130 gal?	CAUTION	permethrin	4	Yellow	Yellow
MSMA herbicide	2 gal	CAUTION	MSMA	1	Green	Yellow
Trimec herbicide	1.5 gal	CAUTION-WARNING	dicamba, dimethylamine salt	1	Red	Red
?B 80-xtra	?	?	?	1	?	?
Drione insecticide	3 oz	CAUTION	pyrethrins, piperonyl butoxide	2	Green	Green or Yellow
Generation	4 pkts	CAUTION-WARNING	difethialone	3	Green	Yellow or Red
Glue trap	22			4	Green	Green
Maxforce Ant Bait	19 stations	CAUTION	hydramethylnon	5	Green	Green
Maxforce Roach Bait	67 stations	CAUTION	hydramethylnon	5	Green	Green
Niban FG	9.8 oz	CAUTION	boric acid	28	Green	Green
Roundup Herbicide	160 oz	CAUTION-WARNING	glyphosate, isopropylamine salt	2	Green	Yellow or Red
Sting Wasp Spray	32 oz	CAUTION	resmethrin	1	Green	Yellow
			TOTAL # APS.	**152**	**TOTAL Green = 111**	**TOTAL Green = 102**
					TOTAL Yellow = 39	**TOTAL G OR Y = 2**
					TOTAL Red = 1	**TOTAL Yellow = 6**
					TOTAL ? = 1	**TOTAL Y OR R = 5**
						TOTAL Red = 36
						TOTAL ? = 1

Austin ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Advance Ant Bait	10.5 oz	CAUTION	avermectin	11	Green	Green
Catchmaster 72MB	133 units			16	Green	Green
Catchmaster Insect Monitor		8 units		2	Green	Green
Contrac Bloks	30.2 units	CAUTION	bromadiolone	3	Green	Yellow
Demand CS	390 ml	CAUTION	lambda cyhalothrin	2	Yellow	Yellow
Gentrol-Pt. Source	2 units	CAUTION	hydroprene	1	Green	Green

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
Goldstick	15 units			5	Green	Green
Hardware cloth	.5 lnft			1	Green	Green
IPM Foam	27.2 oz			14	Green	Green
Larva Lur	7.5 lb	CAUTION	trichlorfon	3	Green	Yellow
Maxforce Ant gran.	38.2 oz	CAUTION	hydramethylnon	27	Green	Yellow
Maxforce Ant stat.	21.7 units	CAUTION	hydramethylnon	12	Green	Green
Maxforce Roach gel	123 g	CAUTION	hydramethylnon	3	Green	Yellow
Maxforce Roach stat.	6 units	CAUTION	hydramethylnon	1	Green	Green
Mouse Snap Trap	10 units			3	Green	Green
Niban Roach Bait	39.3 oz	CAUTION	boric acid	14	Green	Green
Organic Plus	75.9 oz	CAUTION	boric acid	50	Green	Green
PT 310 Avert Dust	18 g	CAUTION	avermectin	3	Green	Green
PT 320 Avert gel	66 g	CAUTION	avermectin	2	Green	Green
PT 370 Ascend	75.1 lb	CAUTION	avermectin	19	Green	Green
PT 515 Waspfreeze	138.5 oz	CAUTION	d-trans allethrin, phenothrin	27	Yellow	Yellow
PT 565 Pyrethrins	16.8 oz	CAUTION	pyrethrins	14	Green	Green
Rat Snap Trap	81 units			19	Green	Green
Round Up Pro	416 oz	CAUTION	glyphosate, isopropylamine salt	6	Yellow	Yellow
Stuff-It	2 lnft			1	Green	Green
Victor Flying Insect Trap		18 units		3	Green	Green
			TOTAL # APS.	**262**	**TOTAL Green = 227** **TOTAL Yellow = 35**	**TOTAL Green = 191** **TOTAL Yellow =71**

Dallas ISD

PESTICIDE	TOTAL AMT.	LABEL	CHEMICAL	#APS	SCHOOL COLOR	CU COLOR
5161 wasp & hornet	1 can	CAUTION	phenothrin, tetramethrin	1	Green	Yellow
Avert Roach Bait	5 oz	CAUTION	avermectin	1	Green	Green
Award	521 oz	CAUTION	fenoxycarb	51	Green	Green
Bait blocks	209 pcs + 109 oz	CAUTION	variety of possible ingred.	26	Green	Yellow
Boric acid	7 oz	CAUTION	boric acid	2	Green	Green
Borid dust	22 oz	CAUTION	boric acid	3	Green	Green
Commodore	1 gal	?	?	1	Yellow	Yellow
Conquer	2.5 gal	CAUTION	esfenvalerate	6	Yellow	Yellow
Contrac	185 pcs + 10 oz	CAUTION	bromadiolone	16	Green	Yellow
Contrac Blox	228 oz	CAUTION	bromadiolone	17	Green	Yellow
Demon	16.88 gal	WARNING	cypermethrin	21	Yellow	Red
Demon WP	? Gal	WARNING	cypermethrin	1	Yellow	Red
Dragnet	445 gal + 10 oz	CAUTION	permethrin or piperonyl butoxide or esfenvalerate	21	Yellow	Yellow
Dursban	10 gal + 1 pkg	CAUTION-WARNING	chlorpyrifos	2	Yellow	Yellow or Red
Dursban 50	45 gal + 1 pkg	WARNING	chlorpyrifos	6	Yellow	Red
Dursban Suspend	.125 gal	CAUTION	deltamethrin	1	Yellow	Yellow
Fleupow/p?	.5 gal	?	?	1	Yellow	Yellow
Glue boards	101 pcs + 3 boxes			25	Green	Green
Glue traps	34 pcs			9	Green	Green
Glyfos	80 gal	CAUTION-WARNING	glyphosate, isopropylamine salt	2	Yellow	Yellow or Red
Large maxforce	1 ea	CAUTION	fipronil	1	Green	Yellow
Larva Lur	133 oz + 1/2 quant	CAUTION	trichlorfon	15	Green	Yellow
Max Force	94 ea	CAUTION	hydramethylnon or fipronil	19	Green or Yellow	Yellow
Maxforce Ant	105 ea	CAUTION	hydramethylnon or fipronil	32	Green	Yellow
Maxforce AR	11 ea	CAUTION	hydramethylnon or fipronil	5	Green	Yellow
Maxforce Roach	230 ea	CAUTION	hydramethylnon or fipronil	38	Green	Yellow
None				37	Green	Green
PT 240	168 oz, 8 cans, 10 g	CAUTION	boric acid	32	Green	Green
PT 250 Orthene	6 oz	CAUTION	acephate	1	Green	Yellow
PT 280	215 oz, 2 cans 5 ?	CAUTION	acephate	28	Yellow	Yellow
PT 515	2 cans	CAUTION	d-trans-allethrin, phenothrin	1	Yellow	Yellow
PT 565	213 oz, 4 cans, 8 g	CAUTION	piperonyl butoxide, d-trans-allethrin, pyrethrins	41	Yellow	Yellow
Rat Sorb	1 bottle			1	Green	Green
Siege	97 st, 10.5 tb, 10 oz	CAUTION	hydramethylnon	31	Green or Yellow	Green or Yellow
Siege gel	78 sta, 5 tubes, 3 oz	CAUTION	hydramethylnon	17	Green	Green or Yellow
Silicone Caulk	2 tubes			2	Green	Green
Suspend	12.75 gal	CAUTION	deltamethrin	9	Yellow	Yellow
Tempo	7.75 gal	CAUTION	cyfluthrin	17	Yellow	Yellow
Tempo W/P	13.875 gal	CAUTION	cyfluthrin	20	Yellow	Yellow
Wasp and hornet	3 oz			1	Yellow	Yellow
Wasp Freeze	4 cans	CAUTION	phenothrin, d-trans-allethrin	2	Green	Yellow
?	?			3	?	?
			TOTAL # APS.	**566**	**TOTAL Green = 334** **TOTAL Green OR Yellow = 50** **TOTAL Yellow = 179** **TOTAL ? = 3**	**TOTAL Green = 163** **TOTAL G OR Y = 48** **TOTAL Yellow =320** **TOTAL Y OR R = 4** **TOTAL Red = 28** **TOTAL ? = 3**

Pesticide Report Card:
Texas Schools Score from A to F
in the Integrated Pest Management
Program

A Texas Pesticide Information Network/
Consumers Union Southwest Regional Office
Report

September 1999