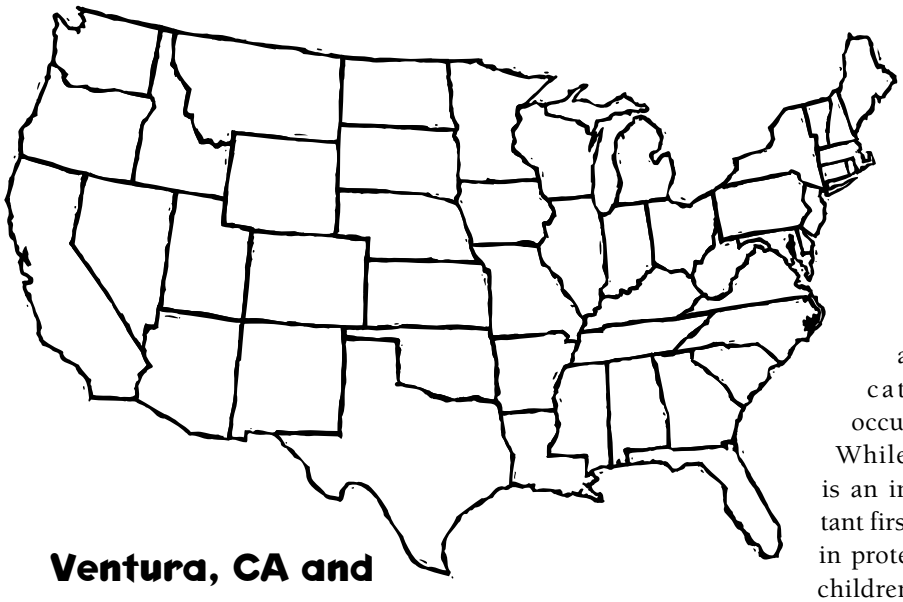
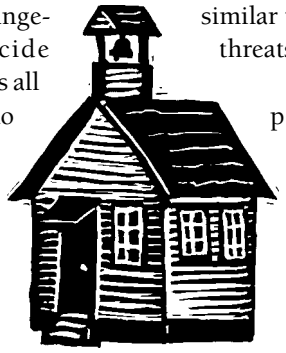
# Around the Country



## Ventura, CA and Anchorage, AK Schools Adopt IPM Policies

In a growing nationwide trend, more school districts and states are adopting safer pesticide policies. On November 13, 1999, the Ventura Unified School District (VUSD) school board unanimously passed an integrated pest management (IPM) policy that eliminates the use of dangerous pesticides in Ventura, CA schools. The VUSD policy is similar to San Francisco and Los Angeles Unified school pesticide policies. VUSD's policy requires all new school buildings be built to accommodate least-toxic IPM principles. The policy requires schools to eliminate the use of Category I and II (acutely toxic) pesticides, Prop. 65 pesticides (known to the state of California to cause cancer or reproductive damage), and any pesticide identified as a known, probable, or possible human carcinogen by the U.S. Environmental Protection Agency (EPA). It also calls for a six-month phase out of pesticides identified as neurotoxins or endocrine disruptors. VUSD's policy requires the district to maintain a registry of chemically sensitive individuals and notify these individuals before pesticide applications occur. While this is an important first step in protecting children and staff from pesticides in schools, many believe the establishment of a registry does not offer adequate protection. The pesticide lobby is promoting registries as a way to head off universal notification. Universal prior notification of parents and staff is necessary because they may not be aware of their *need* to know when pesticides are applied, and thus may not ask to be put on the registry, according to Beyond Pesticides/NCAMP. Further, universal notification treats pesticide exposure as a potential public health problem similar to other generalized health threats, such as a lice outbreak.



Another policy was passed in the Anchorage School District in late February 2000. The policy mandates the use of procedures that safely prevent and control pests while avoiding the unnecessary use of toxic chemicals. The district will use non-chemical prevention methods first, such as caulking and sanitizing, and will use pesticides only as a last resort. Under the plan, schools will provide universal notification to students, parents, and staff if pesticides are to be used by posting notices and sending notices home with students. *For more information, contact Californians for Pesticide Reform (CPR), 49 Powell St., #530, San Francisco, CA 94102, 415-981-3939, Pamela K. Miller, Alaska Community Action on Toxics, 135 Christensen Drive, Suite 100, Anchorage, AK, 99501, 907-222-7714, info@akaction.net.*

*Currently, Beyond Pesticides/NCAMP is collecting information on school districts that have good pesticide policies. To view a list of schools with such policies, see www.beyondpesticides.org. To add your school, contact us.*

## Organic Produce More Nutritious than Conventional, Says Australian Study


A new study shows that eating organic produce can be better for you than eating conventional produce. The study was commissioned by the Organic Retailers and Growers Association of Australia (ORGAA) and shows that organic produce grown in soil enhanced with minerals has up to ten times more mineral content than conventional produce. The Australian Government Analytical Laboratory found that organic tomatoes, beans, peppers and beets had higher levels of calcium, potassium, magnesium, and zinc than the same types of conventional produce. Calcium levels in some of the organic crops were eight times higher, potassium levels were ten times higher, magnesium was seven times higher and zinc was five times higher.

Chris Alenson, technical advisor for ORGAA, stressed that the study was not a replicated plot experiment with all variables considered and has not been published in a recognized journal, so the results "are only an indication and not a direct comparative study." The results were published in the ORGAA newslet-

ter, July 1999. The study indicates that improvement of a soil's mineral content can in turn improve the nutritional content of organic produce, according to Alenson. The original soil used in the experiment was an acidic, volcanic soil low in mineral content. It was then mixed with rock dust (basalt) and mineral fertilizer, which contained calcium, magnesium, potassium, phosphorus, and trade minerals. "A lot more work needs to be done in this area, and to expand the nutrient elements to include more mineral elements, proteins, amino acids, and phytochemicals," said Alenson. *For more information, contact ORGAA at 03-9-737-9799 or oas@alphalink.com.au. Send $1.50 to Beyond Pesticides/NCAMP for a summary of the study.*

## Triple Resistant Canola Weeds Found in Alberta, Canada

Superweeds resistant to three herbicides used in genetically engineered crop production have been discovered in northern Alberta, Canada. The triple resistant canola weeds have arisen from the crossing of three different canola varieties genetically engineered to be herbicide-tolerant. The superweeds are resistant to the herbicides Roundup™ (glyphosate), Liberty™ (glufosinate-ammonium) and Pursuit™ (imazethapyr), according to *Western Producer* (Feb. 10, 2000). This is the first case of natural gene stacking in canola since genetically modified canola was adopted by farmers five years ago, according to Denise Maurice, agronomy manager with Westco Fertilizers, a fertilizer sales company.

The weeds were found in Tony Huether's field, a farmer who has decided to stop growing genetically engineered (GE) canola. In 1997, Huether seeded two fields with canola — one with a canola resistant to Roundup™ and the other with two canola varieties, one resistant to Liberty™ and one resistant to Pursuit™. The two fields were only 30 meters apart. The year after he planted the fields, he discovered volunteer canola weeds resistant to Roundup where none had been planted. Double resistance was confirmed the first year, and the following year, triple resistance was confirmed. The mixing of all three herbicide-tolerant types has been blamed on bee and wind pollination between the two close fields. Researchers recommend at least 200 meters between fields of GE canola varieties and any other canola field to prevent genetic pollution. According to Huether, Alberta Agriculture has been testing his crops for herbicide-resistance without making the results public knowledge. "Many plants were taken and a lot of seeds taken and grown out in the lab and sprayed with the herbicide, and DNA tests done on it, and the results are not being made public. I feel that should be made public," he said.

Canola scientist, Keith Downey, who created modern canola, stated, "We haven't created a superweed or anything like that." He said that adding 2, 4-D or a similar herbicide to a chemical mix will kill any wayward weeds, noting, "I don't think it means anything to consumers," according to *Western Producer*. *For more information on canola herbicide resistance, contact Beyond Pesticides/NCAMP.*

## FL Health Department Epidemiologist Fired After Refusing to Alter Malathion Study Results

The Florida Health Department has fired epidemiologist Omar Shafey, who refused to alter a draft report on pesticide poisoning attributed to public exposure to the insecticide malathion, aerially sprayed in the Mediterranean fruit fly (Medfly) eradication program. Dr. Shafey's version of the report linked illnesses in the Medfly spray zones in Lake, Manatee, and Highlands counties in Florida to the use of malathion in 1998 and included recommendations to cease spraying of the organophosphate pesticide. The Medfly is a serious crop pest in the region, and malathion sprayed from planes and helicopters is viewed as the cheapest, most effective solution, despite proven prevention and biological methods. Dr. Shafey's recommendations were cut from the final draft of the study, which went on to say that no association between the malathion spraying and the reported rashes, breathing problems, and other health effects could be established.

According to a March 18, 2000 *Tampa Tribune* report by Jan Hollingsworth, Dr. Shafey was fired for falsifying travel records, conduct unbecoming of a public employee, and threatening and/or abusive language, charges that Dr. Shafey calls "false and malicious." He plans to sue the agency under state and federal "whistleblower" laws, according to the *Tribune*. In firing Dr. Shafey, the department made no mention of Dr. Shafey's role in the Medfly report. "Falsification of records" charges come from Dr. Shafey's submission of an expense report for a trip to Chicago. State employees are entitled to $50 per day expenses while on a business trip. An investigation into Shafey's trip determined that he worked only three-quarters of one day, resulting in an over-charge of $12.50 to the department, according to the *Tribune*. "Conduct unbecoming" charges stemmed from an email Dr. Shafey sent to a colleague at the Center for Disease Control in which he noted that potassium chloride used in the state's first

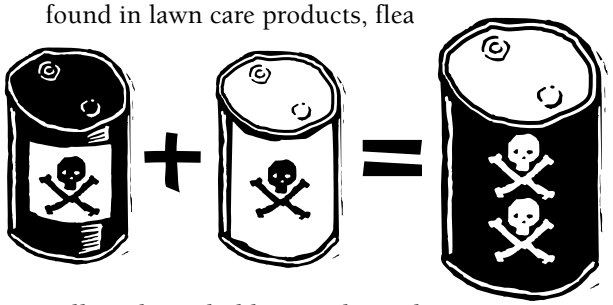
execution by lethal injection had not been approved for that use by the Food and Drug Administration. Sharon Heber, director of the agency's division of environmental health, deemed the email "inappropriate." The abusive language charge came from Dr. Shafey calling his boss a "worm" and "the lowest form of life," upon learning of the agency's intent to fire him, said the *Tribune*. *Copies of the Tampa Tribune article are available for $1.95 at http://archive.tampatrib.com using the keyword "Shafey." For more information, contact Jan Hollingsworth, Tampa Tribune, 813-259-7607 or Beyond Pesticides/NCAMP.*

## Research Shows Dangers of Pesticide Combinations

A new study shows that the insecticide chlorpyrifos is made more toxic when used in combination with other pesticides. Mohammed Abou-Dania, Ph.D., professor of neuro-biology and neuro-toxicology at Duke University in North Carolina, first established the level at which chlorpyrifos, a commonly used organophosphate, had no effect on the nervous system of the lab animals. Dr. Abou-Dania also looked at the pesticides permethrin and DEET. When applied individually, these chemicals produced no neurological problems at their established levels. However, when combined, they produced a toxic effect equivalent to the lethal dose of chlorpyrifos.

There are three reasons why these chemicals are far more dangerous when used in combination than when they are used individually, according to Dr. Goran Jamal, a neurologist at the West London Regional Neuro-Science Centre of the Imperial College's of Medicine in London. First, animals endure stress when exposed to a combination of chemicals, which in turn makes the protective role of the blood brain barrier less effective, allowing the level of toxics to cross into the brain to be 100 times higher. Second, tissue that has been exposed to a toxin becomes more sensitive and receptive to other toxic substances. Third, certain chemicals bind to enzymes that detoxify the body, making the enzymes unavailable to protect the body from other intruding chemicals. Dr. Jamal makes the following comparison, "It's like releasing 200 criminals in London and taking away the police officers that are usually on duty. There is bound to be some damage."

The three pesticides used in Dr. Abou-Dania's study could easily be found in a typical American home. Chlorpyrifos, which is sold as Dursban™, is a commonly used insecticide that can be found in lawn care products, flea collars, household aerosols, and termite controls. Permethrin, a synthetic pyrethroid, can be found in lawn care products, termite controls, lice controls, household foggers, and in insect repellants. DEET is one of the most common insect repellants, found in many insect sprays and lotions. (See story on phase-out of chlorpyrifos home and garden uses on page 10) *For a copyof the study (22pp), send $4.00 to Beyond Pesticides/NCAMP.*



## Study Finds Pesticides in Babies' First Bowel Movements

A recent study finds that newborn babies' first bowel movements contain residues of multiple toxic chemicals. The study, "Environmental Pollutants in Meconium in Townsville, Australia," by L. Deuble, et al., of the Department of Neonatology, Kirwinwas Hospital for Women in Townsville, Australia, and Department of Pediatrics, Wayne State University, Michigan, assesses the prevalence of pesticides, heavy metals and polychlorinated biphenyl (PCB) in meconium, or a newborn baby's first bowel movement. Meconium samples were collected from August 1998 to November 1998 from 44 newborn babies, frozen, and flown to the Department of Pediatrics, Wayne State University, MI, for analysis for the pesticides diazinon, pentachlorophenol, lindane, chlorpyrifos, malathion, parathion, chlordane, DDT, the industrial pollutant PCB, and heavy metals. Results were then linked to demographic data of race (either Aborginal and Islander (AI) or not), birth weight (less than or greater than 2,500 grams, or 5.5 lbs.), gestational age, number of miscarriages, and thyroid status. Of the 44 samples analyzed, 21 were from babies weighing less than 2,500 grams. 35 (78%) of the total samples contained lindane, 19 (43%) contained pentachlorophenol, 26 (59%) contained chlorpyrifos, 15 (34%) contained malathion, 7 (16%) contained chlordane, 23 (52%) contained DDT, and 12 (27%) contained PCB. No samples were found to contain diazinon, parathion or heavy metals. Significantly, all babies less than 2,500 grams were positive for lindane, linking exposure to this pesticide with low birth weight. Additionally, more AI babies were exposed to chlorpyrifos. While DDT has not been available in Australia since 1981, lindane since 1985, and chlordane since 1995, these pesticides still exist in the food chain and can be passed from the mother to the fetus, explaining their presence in baby meconium. An average of three different pesticides was found in each meconium sample. Although individual pesticide concentrations were low, many babies were found to be positive for more than one pollutant and could have experienced additive or synergistic effects, says the study. *For a copy of the study summary (4pp), send $1.00 to Beyond Pesticides/NCAMP.*