



Environmental Toxicology Newsletter

"Published Occasionally at Irregular Intervals"

Arthur L. Craigmill

Extension Toxicologist

Vol. 19 No. 4 -- October 1999

"In This Issue"

- **Toxicologist Urges Human Tests for Synthetic Pyrethroids**
- **Pesticide Benefits Ignored by EPA Tolerance Reassessments**
- **NCI Recommends Safety Studies for Aloe Vera, Ginseng, Kava Kava, Milk Thistle**
- **Diseases Transmitted Through the Food Supply**
- **Food-Related Illness and Death in the United States**

TOXICOLOGY TIDBITS

-  [**Tattoo Dye Containing Iron Salts**](#)
-  [**Eating DDE-contaminated fish from Lake Ontario Has No Impact on Lactation Length**](#)
-  [**Fat in the Fire**](#)
-  [**USDA Pesticide Data Program**](#)
-  [**Pedestrian Deaths Drop to Record Low**](#)
-  [**National Pest Control Association's New Web Site**](#)
-  [**Gerber Will NOT Use Genetically Modified Crops or Produce Treated With Pesticides**](#)
-  [**Contaminated Pizza Dough**](#)
-  [**Attack on the Male - Part I -- Are Synthetic Chemicals Guilty of Gender Bias?**](#)
-  [**Attack on the Male - Part II -- Synthetic Chemicals: Emancipators or Emasculators?**](#)
-  [**Attack on the Male - Part III -- Bad Brains and Bad Kids**](#)
-  [**Childhood Cancer**](#)
-  [**Requiem for Methyl Parathion**](#)

VET NOTES

-  [**Suspected *Rununculus* \(Buttercup\) Toxicosis**](#)
-  [**Lupine Toxicosis**](#)

" INTRODUCTION "

During the last month, there have been several occurrences which seem to be unrelated but which I see as connected. Two of these were brought to my attention in the October issue of [Scientific American](#). The first was a brief report indicating that research back in 1992 had been falsified to show that electromagnetic fields (EMF) could affect calcium transport in cultured cells (see [Fat in the Fire](#) below). The second was a biting editorial by the editor-in-chief of *Scientific American* about a recent decision by the Kansas State Board of Education in relation to teaching evolution and the big-bang. It appears that the Kansas State Board of Education decided that teachers do not have to teach children about these two theories. Gerber recently decided not to use genetically modified crops in manufacturing their baby foods (see [related article](#)), and on the UC Davis campus some crops were destroyed as a “protest” against research on genetically modified organisms (GMOs). How do these relate to one another?

The falsification of data by research scientists (and I use that term very loosely for anyone who would falsify data) to support a theory is extremely destructive. When someone makes up or falsifies data, it is simply lying. This destroys confidence in the scientific process which is one of discovery, formation of theories, and then most importantly, testing of theory. Responsible scientists may be wrong and make mistakes, however when these are discovered they are the first to say “I made a mistake” or “I was wrong.” Certainly, responsible scientists may arrive at very different conclusions based on the same data. The “global warming” theory is an excellent example of how the same data may be interpreted in diametrically opposed ways.

The process of discovering more about ourselves and our universe requires an open process of dialog and hypothesis testing; you just can't make it up as you go, and of course, if you did, it would never stand the test of time! In our research work, we often encounter data which just doesn't "fit" the way we think they should. Are the data wrong? Sometimes we have made a mistake in collecting or analyzing the data, and sometimes the data are simply unusual. Fortunately, these unusual data are often the serendipitous findings which lead us into new areas of discovery.

Any type of censoring of data or theories in science is destructive to the process of open discovery. It is also destructive to place all theories at the same level. In a commentary in [The Scientist](#), a "newspaper" on the life sciences, titled "[A Serious Misstep in the Education of Our Youth](#)," Dr. Bruce Alberts, president of the National Academy of Sciences wrote "Saying that evolution is a theory and not a fact confuses the scientific meaning of these words with their common meaning. In science, *theory* does not mean *guess* or *hunch*. It means an overarching explanation that has been well substantiated by extensive evidence." Readers can access a National Academy of Sciences guidebook titled "Science and Creationism: A View from the National Academy of Sciences" at <http://www4.nationalacademies.org/opus/evolve.nsf>.

When I looked for information about the Kansas State Board of Education decision I visited their website (<http://www.ksbe.state.ks.us/outcomes/science.html>). It was not possible to look at their recently adopted guidelines for teaching science, however it was possible to view the draft version from April 1999. This draft version (<http://www.ksbe.state.ks.us/outcomes/scidraft4.html>) contains numerous references to the teaching of evolutionary theory in the curriculum. In addition, while stumbling around trying to find information, I discovered that the regulations for certification of science teachers in Kansas contains the following: Regulation # 91-1-113b:

- (a) Each applicant for a biology endorsement at the secondary level shall have successfully completed a state-approved program in biology, shall have met the general requirements in S.B.R. 91-1-112c, and shall be recommended by a teacher education institution.
- (b) A state-approved program shall consist of a course of study requiring each student to demonstrate knowledge of
 - (1) the fundamentals of biology, including botany, zoology, bacteriology or microbiology, anatomy, and physiology;
 - (2) laboratory techniques concerned with the study of systematics, development, evolution, genetics, behavior, homeostatic mechanisms and all the life processes in animals, plants, and microbes;

So how does this all relate? Distrust of science may lead people to not only make "anti-science" decisions in relation to education, but may also lead more action-oriented people to destructive behavior (like the destruction of GMO test plots). We should recognize that every human starts life as a practicing scientist, constantly testing the environment, learning language, etc. This process is not always safe; we lose a few along the way, and we cannot ensure complete safety for anything. Chief Justice Warren Burger wrote in a 1980 decision about chemical exposure:

"Perfect safety is a chimera. Regulation must not strangle human activity in a search for the impossible."

But please do not take my word for it. Check out these sites, gather more data, do more analyses. If I am wrong, please tell me that I need to reconsider. **After all, how else am I going to learn?**

----- **Art Craigmill**

TOXICOLOGIST URGES HUMAN TESTS FOR SYNTHETIC PYRETHROIDS

A Pesticide Program Dialogue Committee (PPDC) panelist recently urged the EPA to develop tests to detect the presence of synthetic pyrethroids in humans. In remarks to the PPDC, Sheldon Wagner, a toxicologist with the [National Pesticide Telecommunications Network](#), warned that the Office of Pesticide Programs may be "missing the boat" by focusing on organophosphate pesticide (OP) testing.

"We're going to phase out OP's and what we'll have left (as their broad spectrum substitutes) are synthetic pyrethroids," Wagner said recently, "But there's not a single synthetic pyrethroid out there that we know how to monitor in the body, so how will you assess exposures? You have to prepare for the future."

"What's missing in the (exposure assessment) system, in my judgment, is the human being. The system doesn't allow us to assess how much of an OP, for example, is left in the body after an exposure. And (Dislodgeable Foliar Residue, or DFR) values are pretty darn arbitrary. There's a strong variability - a magnitude of error of 10-fold..." Wagner said.

REF: *Pesticide and Toxic Chemical News*, 27(40), July 29, 1999.



PESTICIDE BENEFITS IGNORED BY EPA TOLERANCE REASSESSMENTS

The Environmental Protection Agency is ignoring the public health benefits of pesticides and is therefore jeopardizing public health as it implements the [Food Quality Protection Act](#) (FQPA), a House Agriculture Committee panel was warned.

A risk analysis expert from Harvard University told the panel that the companies producing the most widely-used pesticides to control such public health threats as ticks and mosquitoes, will surrender their registrations for these uses rather than submit them to the current risk analysis process mandated under FQPA. "I am here to tell you that current implementation of the Food Quality Protection Act of 1996, is not paying enough attention to the public health side effects of regulatory actions. Because of a narrow focus (on dietary risks from pesticides) and lack of consideration of foreseeable consequences, we cannot be sure that implementation of the FQPA will provide significant health benefits, and it may even do harm," said George Gray, deputy director of the [Harvard University Center for Risk Analysis](#).

Under FQPA amendments to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA and the Departments of Agriculture and Health and Human Services are required to identify pests that potentially threaten public health and develop programs to safely "combat and control" them. While such programs may be pesticide-based, the FQPA-mandated analysis of individual pesticide risk (a pesticide's risk cup) can result in a company having to choose which designated use for the pesticide it will eliminate or limit in order to reduce the overall societal risk of the substance. Many products used to combat pests are organophosphates (OPs), which will exceed their FQPA risk cup given EPA's current tolerance reassessment process.

Alluding to the FQPA amendments to FIFRA, Gray said the FQPA clearly expresses "a desire to ensure that alternative pest control methods don't harm public health." He warned that FQPA amendments to the Federal Food, Drug and Cosmetic Act (FFDCA) "do not go far enough because they do not require weighing the risks of substitute pesticides."

REF: *Kansas Pesticide Newsletter*, 22(9), September 17, 1999.



NCI RECOMMENDS SAFETY STUDIES FOR ALOE VERA, GINSENG, KAVA KAVA, AND MILK THISTLE

The [National Cancer Institute](#) (NCI) has recommended aloe vera, ginseng, kava kava and milk thistle for toxicity testing by the [National Institute of Environmental Health Sciences](#) (NIEHS) toxicology program. In a press release announcing NCI's recommendations, NIEHS said toxicity information on the four herbs is "inadequate."

NIEHS spokesperson William Eastin said all the herbs were nominated in part because of their widespread use and lack of toxicity information. Eastin said the herbs are not being singled out. "The decision on testing the herbs is not final. We are trying to accept as much information as will be helpful to make a decision," Eastin said.

Ginseng Recommendation questioned

John Hathcock, vice president of nutritional and regulatory science for the [Council for Responsible Nutrition](#), a trade group representing supplement makers, said the council always welcomes safety studies, but was surprised that ginseng was among the herbals recommended. "As far as I can tell, spending money to do new research (on ginseng) is a waste of time. If there is a biological or chemical justification or any adverse effects that suggest something sinister, I'm unaware of it," Hathcock said. Hathcock said he is also unaware of problems associated with the other herbs, but said any information about toxicity would be useful. "Kava kava is worth safety studies because we know it can have adverse effects at high doses, so it wouldn't hurt to have additional data. Aloe and milk thistle are known for their protective effects against toxicity," Hathcock said.

Kara Dinda, educational coordinator for the [American Botanical Council](#), also wondered why ginseng was on the list. "The only reason I can think is because of how much sales ginseng generates," she said.

The council lists ginseng as the third most popular herb after ginkgo and St. John's wort during a 52-week period ending July 12, 1998. Kava was eighth on the list.

Dinda said she is uncertain why milk thistle was on the list, but said that growing use of aloe as an internal medication that could aggravate pre-existing conditions, justified its recommendation for study.

REF: *Food Chemical News*, 41(25), August 9, 1999.



DISEASES TRANSMITTED THROUGH THE FOOD SUPPLY

Pathogens Often Transmitted by Food Contaminated by Infected Persons Who Handle Food, and Modes of Transmission of Such Pathogens

The contamination of raw ingredients from infected food-producing animals and cross-contamination during processing are more prevalent causes of foodborne disease than is contamination of foods by persons with infectious or contagious diseases. However, some pathogens are frequently transmitted by food contaminated by infected persons. The presence of any one of the following **signs or symptoms** in persons who handle food may indicate infection by a

pathogen that could be transmitted to others through handling the food supply: **diarrhea, vomiting, open skin sores, boils, fever, dark urine, or jaundice**. The **failure of food-handlers to wash hands** (in situations such as after using the toilet, handling raw meat, cleaning spills, or carrying garbage, for example), **wear clean gloves, or use clean utensils, is responsible for the foodborne transmission of these pathogens**. Non-foodborne routes of transmission, such as from one person to another, are also major contributors in the spread of these pathogens. Pathogens that can cause diseases after an infected person handles food are the following:

Caliciviruses (Norwalk and Norwalk-like viruses)
Hepatitis A virus
Salmonella typhi
Shigella species
Staphylococcus aureus
Streptococcus pyogenes

Pathogens Occasionally Transmitted by Food Contaminated by Infected Persons Who Handle Food, but Usually Transmitted by Contamination at the Source or in Food Processing or by Non-Foodborne Routes

Other pathogens are occasionally transmitted by infected persons who handle food, but usually cause disease when food is intrinsically contaminated or cross-contaminated during processing or preparation. Bacterial pathogens in this category often require a period of temperature abuse to permit their multiplication to an infectious dose before they will cause disease in consumers. Preventing food contact by persons who have an acute diarrheal illness will decrease the risk of transmitting the following pathogens:

Campylobacter jejuni
Cryptosporidium parvum
Entamoeba histolytica
Enterohemorrhagic Escherichia coli
Enterotoxigenic Escherichia coli
Giardia lamblia
 Nontyphoidal *Salmonella*
Rotavirus
Taenia solium
Vibrio cholerae 01
Yersinia enterocolitica

REF: *Federal Register*, 64(182):51127, September 21, 1999.



FOOD-RELATED ILLNESS AND DEATH IN THE UNITED STATES

The Centers for Disease Control and Prevention (CDC) released (September 16, 1999) the most complete estimate to date on the incidence of food-borne disease in the United States. According to data published in the current issue of [CDC's *Emerging Infectious Diseases*](#), CDC's peer-reviewed journal that tracks new and reemerging infectious diseases worldwide, **diseases caused by food may cause an estimated 325,000 serious illnesses resulting in hospitalizations,**

76 million cases of gastrointestinal illnesses, and 5,000 deaths each year.

While the **U.S. food supply remains one of the safest in the world**, these new findings further support what we have said all along: **the public health burden of food-borne disease is substantial**," said Human Health Services Secretary Donna E. Shalala. "Our investments in better tracking and surveillance systems have resulted in more complete data to help us evaluate ongoing and future food safety efforts. I urge Congress to help us continue to build upon our food safety programs -- we need to maintain our aggressive efforts on food safety, and we need to fully fund the President's food safety initiative."

The data being released is from a variety of sources including new and existing surveillance systems, death certificates and published studies from academic institutions. According to CDC Director Dr. Jeffrey Koplan, **these are the most complete estimates ever calculated and should not be compared to previous estimates** since the estimates are a result of better information and new analyses rather than changes in disease frequency over time. **These new estimates provide a snapshot of the problem and do not measure trends and do not indicate that the problem is getting better or worse.** In addition, these new estimates include some diseases, such as those caused by *E. coli* O157:H7 and Norwalk-like viruses, that were not included in some previous estimates, he noted.

"Accurate estimates of disease burden are the foundation of sound public health policy. We're extremely pleased to have a new baseline to measure our future efforts to improve food safety. Updated estimates of food-borne illness are needed to guide new prevention efforts and assess the effectiveness of food safety measures," Dr. Koplan said. These measures used 1997 as a baseline --- before key food safety programs were implemented.

Although the U.S. food supply is among the safest in the world, the nation increasingly faces new food safety challenges. Novel pathogens are emerging, and familiar ones are growing resistant to treatment. Since 1942, the number of known food-borne pathogens has increased more than five-fold. American consumers eat out more and cook for themselves less. They also eat more processed food than ever before, involving more people and more preparation, thus increasing the chance for disease-producing food-handling errors. In addition, the number of people most vulnerable to food-borne disease continues to grow: baby boomers are aging thus increasing their vulnerability to food-borne illness.

Since 1993, the Clinton Administration significantly has expanded food safety programs, increasing consumer protections to ensure that the U.S. food supply remains one of the safest in the world. Some improvements include: new safety standards for meat, poultry and seafood products, better surveillance for food-borne diseases through FoodNet, and a new Early Warning System implemented to improve our detection of outbreaks. In 1998, CDC launched a collaborative interagency initiative called PulseNet that uses DNA fingerprinting to better detect food-borne illness. Today, any one of the more than 35 laboratories in CDC's PulseNet network can fingerprint *E. coli* in less than 24 hours, whereas the process used to take days or weeks.

This entire article can be accessed on the Internet at: <http://www.cdc.gov/ncidod/EID/vol5no5/mead.htm>

REF: Centers for Disease Control, September 16, 1999.



◆ Toxicology Tidbits ◆

Tattoo Dye Containing Iron Salts

Scientist T.R. Newman of Port Richey, FL, writes to warn teens of a medical reason against getting tattoos: "**The dye used contains iron salts. These, when subjected to the high magnetic field on an MRI, generate heat which can burn the flesh.** Therefore, when you have a tattoo, you are eliminating an important medical tool for diagnosing problems." Abby adds that vegetable-based dyes are available, and advises consumers to find out which kind of dye is being used so they can warn their doctor or MRI technician in advance.

REF: *Washington Times*, 23 August 99, C18.



Eating DDE-Contaminated Fish from Lake Ontario has no Impact on Lactation Length

Eating DDE-contaminated fish from Lake Ontario has no impact on lactation length in nursing mothers, according to University of Buffalo epidemiologists. DDE is a potential endocrine disrupter. While women who ate fish from the lake had shorter lactating periods (on average 12 weeks less) than those who did not, those who ate the fish also had breast milk DDE concentrations 47% lower than those who ate no fish. The study cohort was composed of 54 first-time mothers enrolled in the New York State Angler Study who gave birth between 1991 and 1993. The study was funded in part by the Great Lakes Protection Fund and the Agency for Toxic Substances and Disease Registry.

REF: *Food Chemical News*, 41(30), September 13, 1999.



Fat in the Fire

"Findings that a biochemist faked experimental results in two published papers have devastated research on possible effects of low-intensity electromagnetic fields. The [Department of Health and Human Services's Office of Research Integrity](#) has released a draft of an analysis concluding that Robert P. Liburdy, a biochemist who worked at [Lawrence Berkeley National Laboratory](#) until he was forced to retire this year, "intentionally falsified data" to show that such fields affected cultured cells. The assessment concurs with a committee at the Lawrence Berkeley laboratory that found Liburdy had engaged in scientific misconduct. Liburdy, the committee said, "deliberately created artificial data where no such data existed" and sat on data that contradicted his published claims. "

REF: *Scientific American*, October 1999.



USDA Pesticide Data Program

The [USDA Pesticide Data Program](#) -- Annual Summary Calendar Year 1997 report, was released with emphasis that the findings indicate the food supply is safe. A total of 8,177 samples were collected and analyzed. When violations were found, they were mostly for products where no tolerance had been established. Residues, when found on foods, were generally well below tolerance levels.

REF: *Issues in Food Safety*, 12(1), 1999.



Pedestrian Deaths Drop to Record Low

Pedestrian deaths reached an all-time low last year, according to government statistics soon to be released. Last year, 5,220 pedestrians were killed in this country, the lowest number since the government began keeping such statistics 70 years ago, the [National Highway Traffic Safety Administration](#) says. The highway administration report shows that 69,000 pedestrians were injured last year. Officials credit stricter law enforcement, public service campaigns and better signaling at crosswalks for the decline. Over the past decade, pedestrian deaths have dropped 24%.

Some safety experts, however, warn that while declining pedestrian death rates are good news, the numbers can be deceiving. For example, Americans are walking less than ever. In 1977, 9.3% of all trips were made on foot. In 1995, the most recent figures available, only 5.4% of trips were made by walking, according to the [Department of Transportation](#). Men were twice as likely to be killed walking as women, and alcohol was involved in more than half the adult deaths. **Most alcohol-related pedestrian deaths resulted from the pedestrian being drunk, not the driver.** Chances of being struck and killed while walking also increase with age. Still, 580 children age 15 and under were killed while walking, while another 21,000 were injured.

The National Highway Traffic Safety Administration will soon release recommendations to protect young pedestrians, including giving schoolchildren fluorescent clothing and flashlights for night walking.

REF: *USA Today*, September 1999.



National Pest Control Association's New Web Site

Termites do more than \$1.5 billion worth of damage to American homes each year. Cockroach allergens have been linked to asthma in children. Rodents carry the dreaded hantavirus that can be spread to humans. Consumers have questions about these and other pest-related facts. The National Pest Control Association (NPCA) has launched a new website specifically to answer homeowner questions about pest control issues. NPCA's website (located at: <http://www.pestworld.org>) is geared to help homeowners with their pest control problems. The site is also designed to accommodate questions from consumers. Messages can be posted directly for NPCA technical staff members and pest control professionals to obtain background information before a professional pest control operator arrives. Often homeowners may be shy about addressing pest control problems with professionals because they do not know enough about their problem, or they feel as though someone will take advantage of them. This website allows people to ask questions in relative anonymity before they either make a call to their local pest control operator, or it can help them fix the problem themselves. Even the President of the United States has acknowledged the importance of the service provided by professional pest control operators. In a statement released at the end of May, the President wrote, "Your dedication to professional excellence is helping to stem the destruction caused by pests and to educate the public about effective pest management and the safe use of pest control materials." To access this website, click on the "homeowners" icon on the website's home page. Once there, users will be transported to an area that enables them to find out more about insects and pests, enter a discussion forum with other homeowners and members of the NPCA staff, and download tips on choosing a professional pest control operator.

REF: *Chemically Speaking*, July 1999.



Gerber Will NOT Use Genetically Modified Crops or Produce Treated With Pesticides



The *Wall Street Journal* reported in their July 30 edition that [Gerber](#), a leading brand of American baby food that produces 5.5 million jars per day and has annual worldwide sales of \$1 billion, has bowed to pressure from Greenpeace. Gerber announced that they will bar genetically-modified crops from their products and shift to organically-grown crops, accepting only corn and soy flour products grown without any pesticides or chemical fertilizers. They have promised to try to use only organic, pesticide-free ingredients in Gerber products.

What made this news surprising is that Gerber is a subsidiary of the Swiss firm Novartis, one of the world's major producers of pesticides and genetically-engineered crops. Gerber stated that their decision was not an admission of any dangers lurking in its baby food from pesticides or bioengineering. Scientific reality says these foods are safe.

Two other baby-food makers, [H.J. Heinz Company](#) and Healthy Time Natural Foods, have now followed suit and made similar changes in their product lines as well.

REF: *Chemically Speaking*, September 1999.



Contaminated Pizza Dough



A total of 54 people were sickened in Cuba after eating pizzas whose pizza dough was made with flour contaminated with endosulfan. The pizzas were sold at an illegal food stand at a beach in Bahia Honda, about 50 miles west of Havana. Authorities were trying to find out how the contamination occurred. The pizza vendor and other people connected with the sale were detained and could face criminal charges. The victims, including 21 children, suffered nausea, convulsions, muscular weakness and breathing problems, and six were seriously ill. In February, 63 people were sickened in Cuba after eating fried vegetables also contaminated with endosulfan and sold by an illegal vendor. Fifteen of those victims, unfortunately, died. (AP; August 18, 1999)

REF: *Chemically Speaking*, September 1999.



Attack on the Male - Part I -- Are Synthetic Chemicals Guilty of Gender Bias?

Headline news about a year ago proclaimed that sex ratios (the number of males born compared to the number of females) are going down in several developed countries including the United States. And the purported culprit behind this feminization of America? Synthetic chemicals, of course. Among them, pesticides.

The entire article, written by Dr. Allan S. Felsot, Environmental Toxicologist, Washington State University, can be found at <http://www2.tricity.wsu.edu/aenews>.

REF: *Agrichemical and Environmental News*, 160, August 1999.



Attack on the Male - Part II -- Synthetic Chemicals: Emancipators or Emasculators?

"Macho, Macho Man" was a popular theme song nearly twenty years ago. Now it seems to be "Viva, Viagra!" In the

interim, *Our Stolen Future* was published (Colburn et al. 1996), and now everyone is wondering whether synthetic chemicals have been great societal liberators or the cause of unprecedented reproductive problems that literally threaten human fertility. Some pundits point to an increasing incidence of male reproductive tract maladies as proof that we are being drastically harmed by synthetic chemicals capable of mimicking the sex hormones estrogen and testosterone.

The entire article, written by Dr. Allan S. Felsot, Environmental Toxicologist, Washington State University, can be found at <http://www2.tricity.wsu.edu/aenews>.

REF: *Agrichemical and Environmental News*, 161, September 1999.



Attack on the Male - Part III -- Bad Brains and Bad Kids

The print media has discovered a hypothesis lying dormant within the covers of Theo Colborn's "Our Stolen Future." Referring to hormonally active agents (HAAs), which are chemicals that can disrupt the endocrine system, Colborn asked, "To what extent have scrambled messages contributed to what we see happening around us -- the reproductive problems seen among family and friends, the rash of learning problems showing up in our schools, the disintegration of the family and the neglect and abuse of children, and the increasing violence in our society?"

The entire article, written by Dr. Allan S. Felsot, Environmental Toxicologist, Washington State University, can be found at <http://www2.tricity.wsu.edu/aenews>.

REF: *Agrichemical and Environmental News*, 162, October 1999.



Childhood Cancer

A study released by the National Cancer Institute has found that "despite worries about pollution, exposure to chemicals or radiation and other dangers, **America's children are not developing cancer more often than in the past.**" The incidence of cancer in U.S. children was nearly unchanged from 1975 to 1995 -- and the death rate from cancer has fallen. (Source: Reuters Health and Science Report.)

The NCI report can be found at: <http://www-seer.ims.nci.nih.gov/Publications/PedMono/introduction.pdf>

REF: *Issues in Food Safety*, 12(1), Summer/Fall 1999.



Requiem for Methyl Parathion

"Alas, poor methyl parathion (MP), we have known you well. May you rest in peace. Your use on all fruit (among many other uses) was cancelled by the Environmental Protection Agency (EPA) on August 12, 1999, in a voluntary consent agreement with your manufacturer. "

For the complete article written by Dr. Allan Felsot, go to: <http://www2.tricity.wsu.edu/aenews>

REF: Agrichemical and Environmental News, 161, September 1999.



Suspected *Rununculus* (Buttercup) Toxicosis

Suspected *rununculus* (buttercup) toxicosis was the cause of diarrhea, drooling, licking the air, teeth grinding, excessive chewing, paddling, downer animals and deaths in a group of 113 Holstein heifers that were 7 to 8 months old. Seventy-five percent of the animals were affected and 14 died. Deaths began five days after the hungry heifers were placed on a pasture with buttercup growth. Pathology was limited to evidence of hemorrhage in the small intestine mucosa. The toxin in buttercup is a gastrointestinal irritant and can cause mouth blisters and diarrhea with melena. It is also a potential neurotoxin. The toxin is rapidly inactivated as the plant begins to dry out in the summer or after harvesting. Affected animals recovered after being removed from the pasture.

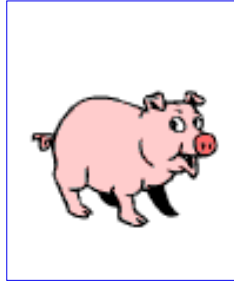
REF: *Lab Notes* (CVDLS, UC Davis), 12(2), Summer 1999.



Lupine Toxicosis

Lupine toxicosis resulted in 13 sudden deaths in a group of 4,000 yearling beef heifers. The dead animals were found clustered near a road where a large patch of lupine was growing. Large quantities of lupine alkaloids were found in the rumen contents of the dead animals, which had no gross or histopathology lesions.

REF: *Lab Notes* (CVDLS, UC Davis), 12(2), Summer 1999.



 [Back to the Beginning](#) 

[Home](#)