



CHAPTER 1

EARTH DAY

In 2001, it was reported we now use over 4.5 billion pounds of “registered” pesticide poisons annually in just the U. S. A.

Since 1965 over 4 million distinct chemical compounds have been reported in scientific literature. As of 1981, over 3,000 have been “intentionally” added to our food and over 700 have been found in drinking water. Add to this literally tons of volatile pesticide poisons, petrochemicals, radiation, industrial pollution, exhaust, medical drugs that are daily added to the toxic brew and you find an unbelievable toxic chemical and poison avalanche greatly inundating the human race in a relatively short time of evolutionary history.

Zane Gard, M.D. has noted that current clinical, scientific and governmental studies indicate a staggering increase in the incidence of environmentally induced illnesses. Four major factors responsible for this toxic outbreak are: (1) discrepancies and miscalculations in established “safety” standards for “allowable” contamination and/or poison tolerances, (2) inadequate toxicity data that ignores the entire poison formula and synergism, (3) “approved” use of many toxic substances in this Country as ‘inerts” or active ingredients that have already been banned here or in other countries as active ingredients and/or as known threats to human health, and (4) the lack of formalized training of physicians in medical toxicology. The total toll on human suffering is incalculable at the present time, as current statistical data does not include the dangers of “inerts”, metabolites, synergisms, contaminants, impurities, etc., non-occupational exposures, differing health conditions and tolerances and ages and sexes, nor does the current statistical data consider cumulative, interactive, or long-term (chronic) exposure effects.

Alan S. Levin, M.D. has noted, “The vast increase of chemicals (poisons) in our environment, foods and medicine has greatly altered the body’s ability to rid itself of toxins...the average citizen of the 1990’s is biochemically and genetically different from the average citizen of the 1950’s...ordinary (medical) texts and training are geared to treat people who no longer exist.”

In the early 1990s the Author wrote most of this Chapter and noted that we must stop the needless contamination of ourselves and the earth; our children depend upon us to use some sanity - if there are any alternatives to toxins, especially long-lived pesticidal toxins, we must begin to use them, because we **all** live downstream.

Modern medicine, although renown for its tremendous crisis intervention capabilities and marvelous technological advances, has not found the cause, much less the cure, of one chronic disease. The American college of Allergists has said that 50% of all illnesses are either caused by or aggravated by polluted indoor air. As you begin this ever-evolving study of true IPM, always remember the purpose of this study is to save the earth and you from unnecessary pollution. There obviously will arise traditional pest control “experts” who will critique this work - Pierre Pachet (Professor of Psychology at Toulouse in 1872) once wrote, “Louis Pasteur’s theory of germs is ridiculous fiction!” To all those “experts” the Author simply reminds them - some other “experts” assured us that asbestos, tobacco, DDT, chlordane, heptachlor, aldrin, dieldrin, Dursban (chlorpyrifos) and many other toxins were also “safe.” U. S. manufacturers exported (on average) 157 tons of hazardous pesticides per day between 1992 and 1994. many of the materials exported are banned for use in the U. S., but not where they are being shipped. Developing countries record 99% of all pesticide-related deaths, even though industrial countries use 80% of agricultural chemicals (poisons). In 1995, the U. S. used about 1.2 billions pounds of just the pesticide poisons’s active ingredient per EPA, which is about 20% of the world’s pesticide use, with agriculture accounting for 77% of the pesticides used in the U. S. The Author believes less than 2% of the U. S. doctors are qualified to diagnose the various pesticide poison symptoms both acutely and chronically. The Author believes above all else it is up to **you** to choose the safest way to control your pest problems.

Like Lemmings to the Sea

Dow Shalt Not Destroy Thy Indoor Air Quality (with Volatile, Synthetic Pesticide Poisons) - Our Indoor Air Quality (IAQ) has too long been neglected even though it is as necessary to our survival as our next breath. With each breath we take in billions upon billions of air molecules. G-d help us is our ambient air is polluted/contaminated with poison(s)...for unlike smoking, which we can choose to quit, we cannot choose to stop breathing! We can and must, however, now choose to stop spraying volatile, synthetic poisons in our schools, vehicles, offices and homes where we spend 90% of our time. Volatile, synthetic pesticide poisons are the only toxic contaminants we deliberately add to our environment. The continued use and misuse of volatile pesticide poisons results in pollution, adverse medical effects on people and pets and long-term contamination of personal and public property and does not even control the targeted pest population. There will be no indoor air pollution if we stop

contaminating it with poison in the guise of *protecting* ourselves and our children! On particularly smoggy days, children, elderly people and people with respiratory problems are told to stay inside to avoid health risks from air pollution...yet monitoring studies have consistently found concentrations of many air pollutants are actually higher inside than outside our vehicles, homes, schools and offices! It amazes me that Dow's Dursban TC label specifically stated, "Do not use in structures housing animals which are intended for or which produce products to be used for food purposes." If this poison was not safe to spray (one time) in open barns with animals, how could it be continually *safe* to repeatedly spray this volatile poison in a confined area with people present?

If migrant laborers cannot legally enter a field sprayed with volatile, synthetic pesticide poisons for 4 days, how on earth can we safely stay inside or legally enter within a few hours or moments a termite pretreatment or a building sprayed with over 300 times the *safe* outside rate of the same poison for an acre?...yet the Author knows of many families who watched the termite treatment of their home! Even if the public is given the poison label and MSDS, how many of them can interpret even the list of active ingredients much less evaluate all of the secret "inerts," contaminants, transformation by-products, metabolites, etc. in order to intelligently decide when/if they can "safely" enter and/or how much toxic exposure they can survive? Do you know what it means when the label states "cholinesterase inhibitor"? - try substituting the words volatile neurotoxin or nerve gas! The International Agency for Research on Cancer <http://www.iarc.fr/> has said that ambient air in cities and industrial areas typically contains a hundred different chemicals known to cause cancer or genetic mutations in experimental animals, while improving more than a hundred urban areas still fail to meet national air quality standards. In other words, nearly one hundred million Americans breathe air that officially was already illegal in the 1990s!

On a 1990s' radio show a Secretary called in and told Pat Hiaeshutter from H.E.A.L. and myself, "We secretaries noted for several days each month we could not remember how to type or even how to answer the phone correctly, but were unaware why we were so affected.... until we kept a diary and noted we all became disoriented for days after the pest control man sprayed (poison in) our offices for nonexistent ants! Most monthly pest (poison) control is totally unnecessary and dangerous. It reminds me of the man banging cymbals on the street.. .when asked "Why?," he answered, "to scare away wild elephants." When told there were no wild elephants in North America he responded, "See...it works!"

The main problem with poison contamination is that you can not see it, much less determine visually that it is a dangerous pollutant and, therefore, most people do not believe it can adversely affect their health, but studies now are proving that poor indoor air quality (IAQ) severely damages our health and our possessions; it lowers our productivity at work, and it diverts major resources to diagnosing and solving problems that result from this toxic contamination. In the 5th Century, B.C.E., the Greek physiologist and philosopher Empedocles noted the air was not a void but a living substance - to put poisons into the air is, obviously, going to effect life.

The ever increasing cost to diagnose, decontaminate, mitigate and litigate IAQ problem is evidenced by the burgeoning number of businesses providing these services. Over 1,500 firms now specialize in IAQ services. In addition, the cost of legal fees, awards and settlements is also growing as an increasing number of IAQ-related cases is being litigated. The settlements themselves are often in the hundreds of thousands to millions of dollars. The costs of defending and litigating even small "cut and dried" frivolous lawsuits may be in excess of \$10,000.00. Defense attorneys charge up to \$300 (or more) per hour during trials. Professional witnesses charge \$1,000 or more per day.

EPA has for years ranked IAQ problems as one of the largest remaining health risks in the United States. Health effects range from the mildly irritating, such as headaches and allergies, to the life threatening, such as cancer and heart disease to death! Medical costs due just to excess cancer cases caused by indoor air contaminants are estimated to range from \$188 million to \$1.375 billion nationwide. One study indicated that for every 100 white collar workers poor IAQ would cause an extra 24 doctor visits per year. This amounts to another \$288 million. What about the astronomical hidden costs in early retirement, accidents, mistakes, violence, inefficiency, workmen's compensation, etc.

Hidden costs also include lost daily productivity of workers who experience disorientation, memory loss, headaches, eye irritation and fatigue, among other symptoms. Productivity drops as employees become intoxicated and become less effective at their tasks and spend more time away from their work. One study found that 14 minutes are lost per 8-hour day due to poor IAQ. In addition, for every 10 workers, poor IAQ causes

an additional 6 sick days per year. The resulting cost of just this lost productivity for the United States is \$41.4 billion per year! And what about our children who are unable to learn...what long term costs will this create? What about all of the violence? **The word “intoxicated” does not mean drunk (with alcohol); it only means you have toxins in you. Why do you think the inner city, where most of the volatile poisons are used, has so much violence and educational problems? Why do you think that people no longer wave at you with their whole hand, but now are using only one finger?**

People with the following conditions have been identified by the Congressional Research Service as being at special risk to the adverse effects from exposure to indoor air pollutants - including pesticide poisons. Note: some individuals may have more than one condition concurrently (e.g., heart disease plus allergy) which exponentially increases the danger also note: the severity of any individual health impact was not quantified for any condition listed below:

<u>DEATHS</u>	
Heart disease:	69,080,000
Chronic obstructive pulmonary disease:	88,980
Asthma:	12,000,000
Emphysema:	2,000,000
Elderly:	29,566,000
Pregnancies resulting in live births:	4,000,000
Young:	
Under 18	64,137,000
3 years and under	8,381,000
Allergy:	28,000,000
Atopic chemical sensitivity	32,500,000

*Categories of concern but not listed (above) include HIV-positive people, people with autoimmune disorders, people with neurological disease, people undergoing radiation or chemotherapy treatments subpopulations of people on multiple therapeutic drug regimens, people who use or abuse other immunologically or neurologically active substances, people with multiple chemical sensitivity (MCS), people at risk for MCS (industrial workers, tight-building occupants, residents of contaminated communities, and those exposed to sensitizers from other sources), and organ-transplant recipients. SOURCES: Courpas; *World Almanac*; Ashford and Miller (1991); National Jewish Center for Immunology and Respiratory Disease; *The Human Ecologist* (see Fall 1993 cover). **Note: There is a tremendous interest on the part of the poison makers and sprayers to pretend MCS is only a mental problem or a psychological illness - but remember that multiple sclerosis (MS) was thought to be psychogenic in origin for over 100 years.**

In the 1990s in the U. S. about 100 - 300 people die as a result of pests and up to 20,000 U. S. citizens may contract a disabling disease from pests according to health records. Even so, it would clearly seem to me that the (poison) “cure” is worse than the (pest) “disease”. Why not try my Pestisafes® that will actually control the pests without harming the people, pets or the environment.

According to the Congressional Research Service, “...Urban and suburban (synthetic pesticide poison) applications to lawns, golf courses, roadsides, public buildings, and to homes and apartment buildings can lead to even broader human exposure than agricultural applications of these toxins. These...applications can cause immediate toxic reactions (especially) to sensitive individuals... (T)here is (also) concern about less visible but longer-term health effects.” Not much has been studied about chronic “registered” pesticide poison exposure indoors where people spend more than 90% of their time.

In an effort to stop the toxic contamination of our children in 1993, USDA, EPA and FDA all agreed to find alternatives, yet in 2001 none of these agencies could even define the word “alternative”. Also in 1993 EPA distributed to school districts across the nation brochures encouraging pesticide poison use reduction and alternative pest control methods through integrated pest management. Sadly, traditional pesticide applicators are being hired to create the poison reduction! Also “Foxes guarding the chicken coop!” These “IPM” poison applicators continue to spray volatile poisons and say this is “IPM”! These volatile, synthetic poisons, obviously, are known to create environmental contamination and have obvious toxicity to people and pets and other non-target organisms. In addition to their inherent risks they are basically all useless due to the ever increasing number of pest species that have become resistant to all the available synthetic pesticide poisons!

The premier total exposure assessment methodology TEAM study was the first and the largest governmental study that attempted to determine if persons living close to chemical plants and petroleum refineries had higher exposures to toxic volatile organic compounds than persons living a few miles away. No such effect was found at any of the study sites...but it did find the real danger - the median air concentrations of the 18 targeted chemicals ranged from 2 to 20 times higher inside participants' homes than in the outside!

One toxic chemical included in this study was paradichlorobenzene (p-DCB), a registered pesticide poison commonly used to control moths but also used as a bathroom air deodorizer or air "freshener". About a third of the 750 homes measured in the TEAM VOC studies had elevated levels of p-DCB and noted a corresponding and sharply increasing concentrations of p-DCB in the blood of the residents over a 3-day period. A few years ago at a Bed and Breakfast the Author found this toxin not only in the bathroom, but under the Owner's car seat ostensibly to *freshen* the air!

Another special TEAM study of 3 new buildings and 7 older ones showed that the new buildings had concentrations of 8 other chemicals (poisons) that were typically 100 times the dangerous outdoor concentrations/contamination rates!

In 1990, EPA published the results of their Nonoccupational Pesticide exposure Study (NOPES). It was intended both to test the total exposure assessment methodology (TEAM) for measuring environmental exposures and to gather information about pesticides inside homes. Seasonal measurements of pesticides were taken in selected homes in Florida and Massachusetts. All of pesticides selected for the study were detected in indoor air samples at reported mean concentrations that, because of calculation and detection methods used, may actually have under-represented concentrations actually present at the time samples were taken. Most commonly found poisons/contaminants included chlorpyrifos, propoxur, diazinon, o-phenylphenol and chlordane*, heptachlor*, lindane, dieldrin*, aldrin*, dichlorvos, alpha BHC*, bendiocarb, malathion and hexachlorobenzene. (Noted that at the time of the sampling, those marked "*" in this list had already been banned or withdrawn.) Since these volatile poisons were previously used widely to prevent termites, they are believed to have entered the homes via diffusion of soil gas into basements in much the same way as radon enters homes. Another *registered* pesticide DDT, banned for nearly 20 years, was found in house dust in 5 of 8 homes. Later studies, which included measurements in soil just outside the home, suggested that DDT and other long-lasting pesticide poisons may also be tracked in from soil clinging to our shoes, but the Author knows of homeowners and professional pesticide applicators who openly brag they still spray these banned poisons! To obtain a free booklet, *The Inside Story*, which describes actions people can take to reduce their exposures to indoor pollution, contact: Indoor Air Quality INFO, P. O. Box 37133, Washington, DC 20013-7133; phone: 1-800-438-4318, <http://www.epa.gov/iaq/pubs/insidest.html>.

As measured in this team survey, indoor concentrations of these pesticide poisons were often 5 to 100 times higher than outdoor contamination rates.

Air in older homes contained more dangerous levels of the banned poisons than were found in newer homes.

The omnipresent pesticide poisons found in house-dust samples suggested to the researchers that house dust may represent an avenue of chronic pesticide poison exposure to occupants, particularly small children in close contact with floors.

Chlordane and other termiticide poison contaminations in homes were associated with a history of termite **treatment**, *but not necessarily with the occupant's recollection of termite treatment(s)*.

"Pesticide poison use and home ventilation systems vary across the country and are likely to lead to different toxic exposure levels. Considering the widespread use of pesticide poisons and the frequency with which they were detected (in this study), it does suggest that exposure will occur in other (geographical) areas....."
Some respondents kept large inventories of pesticide poisons, some of which were banned for use by the general public for years."

Another homeowner-use survey, the National Home and Garden Pesticide Use Survey (March 1992) found: No safety precautions were used with 16% of pesticide poisons purchased (in sprayers). Consumers considered "holding the breath" a safety precaution when using foggers (28%) or ready-to-use sprayers (23%). Protective clothing was worn in only 30% of the applications of these volatile toxins.

20% of all households had been commercially *treated* for indoor pests, such as roaches, ants or fleas. More than 75% of these respondents could not remember receiving **any** written notification of the *professional* poisons used or of **any** safety precautions they should take following treatment to avoid personal contamination.

We know from these studies that most people still choose to use and store pesticide poisons indoors in their homes (approximately 85 per cent). They don't take many precautions when they apply them themselves (no precautions with approximately 60 per cent of sprayed poisons). Nor do they recall learning of any precautions to take from the labels of self-applied pesticide poisons or from materials given them by professional pesticide (poison) applicators (75%). They don't know what pesticide poisons have been applied to their residences by previous residents, and they don't keep track of what volatile poisons they have used themselves.



The simple fact is our homes and/or buildings remain sealed and/or are now highly energy efficient and these inside environments are not subject to most degradative processes that exist outside in the sun, rain and wind - this condition allows these volatile, synthetic pesticide poisons to become far more concentrated and to remain active/dangerous for far longer periods than if they were applied outside. When they are applied outside in fields often migrants are not allowed to reenter outside for up to 4 days! Why then do you “think” it is safe for you and your family to reenter your “fumigation chamber” in a couple of hours?

In the March/April 1992 “Archives of Human Health” issue, Hebrew University School, Jerusalem and Tel Aviv Ministry of Health, et al. published a study wherein they documented illness and excretion of organophosphate poison metabolites four months after a household pest extermination clearly indicating it is not safe to reenter a building treated for roaches after a few hours, but that toxic exposures from labeled usage may be prolonged, continuous and involve infants and children.

In 1975, EPA took breast milk samples from over a 1000 women but analyzed them for only a few pesticide poisons...they found the *probable carcinogens* DDT in 100%, PCB's in 99% and dieldrin in 83% of their samples! FDA has set contamination limits on commercial milk by pesticide poisons, but the Government ignores the fact that human breast milk is also contaminated with more than 100 industrial toxins, including pesticide poisons exceeding the FDA limits! On Thursday, April 14, 1994 a truck carrying insecticide poisons hit a sign along Interstate 20 just east of Dallas; killing the Driver and triggered explosions and a fire that spewed toxic plumes of smoke for 10 hours. Thousands of people were evacuated from the path of the visible death-dealing cloud and the Interstate was closed throughout the day. The fire was finally smothered with sand, but 20 people had to be taken to Dallas hospitals that day after breathing the fumes. “Shades of Bhopal” - the Driver probably had the accident because he was intoxicated by the poison (fumes) he was carrying, and what about all the poor unfortunates who live in the poison's (invisible) path. The visible toxin/smoke is gone, but the invisible toxins will remain and continue to contaminate for months and/or years all those that will have to continue to breathe along that terrible path!

The FDA reports that 3.1% of the fruit and vegetables consumed by the public contain pesticide poison residues above the *legal* tolerance level! The Environmental Working Group (EWG) chemists found the actual violation rate is 5.6%, nearly double the FDA claim!

In a separate study taken in 1992 but released later, the USDA found pesticide poison residues of 49 poisons in 61.2% of the apples, bananas and widely consumed produce it tested. Today, a (poisoned) apple a day will not keep the doctor away! The casual attitude of many consumers and government officials clearly indicates that they are aware of the supposed pesticide poison *benefits* but totally unaware of the actual pesticide poison risks/dangers.

The Institute of Medicine conducted an 812-page study of herbicide-exposed Vietnam veterans and offered this terse opinion, “Evidence is sufficient to conclude that there is positive association. That is, a positive association has been observed between herbicides and the outcome (non-Hodgkin's lymphoma) in studies in which chance,

bias and confounding could all be ruled out with reasonable confidence.”

Representative Henry A. Waxman (D-California), who chaired the House Subcommittee on Health and the Environment, said, “For too long federal environmental policy has overlooked the environmental hazards lurking in our homes, schools and offices. For the sake of the millions of Americans afflicted by these contaminants, now is the time for a change.” He also noted the Indoor Air act of 1993, introduced by Representative Joe Kennedy (D-Massachusetts), establishes a national framework for addressing indoor air problems other than secondhand smoke and radon. It calls upon EPA to identify common indoor air hazards. Levels of individual pollutants or faulty ventilation systems -then issue guidelines for identifying, eliminating and preventing them. If the voluntary guidelines do not succeed in protecting the public, EPA would have the authority to take appropriate regulatory action. For the third Congress in a row, Senator George Mitchell’s (D-Maine) indoor air bill has passed the Senate. The Kennedy bill finally provides a viable legislative vehicle for House action.

Beyond these important measures, Congress should also enact comprehensive legislation to improve indoor environments in schools and day care centers. Children are especially susceptible to environmental hazards, and recent hearings of Representative Waxman’s subcommittee have found that many schools and day care centers harbor hidden environmental hazards. In New York City, for instance, thousands of classrooms - nearly 1 out of every 4 - has a lead hazard. Nationwide, 1 out of every 5 schools has at least 1 class room with an elevated radon level.

While the *Democrats* are now trying to protect the Nation from future poison contamination and its resulting health problems, there is literally a toxic cesspool out there from past use/misuse that people are trying to survive. I personally know of many people all over the country who have had volatile pesticide poisons *professionally* applied in their homes that now find they no longer can safely live in their own homes; some have also lost pets, jobs, marriages, finances, health or even their lives! Obviously, it is too late for *them*, but we can and must stop future poison contamination **now!**

Once applied and contamination occurs, pesticide poisons must be actively removed; they do not dissipate on their own. The half -life of an outdoor application of the Dursban used in termite control once applied (and contamination occurs) for example, is 15 years. Adequate tests have not been done, especially in the U. S., to determine the half-life in any indoor applications/contaminations! I have never heard of **anyone** successfully/ permanently removing/decontaminating a home *treated* according to the label directions with any carcinogenic cyclodiene chlorinated hydrocarbon, e.g., chlordane, heptachlor, et al. Yet a study stated that at least 75% of all U. S. homes built before April, 1988 are now (permanently) contaminated with chlordane at significant levels.

The very best way to clean up anything which has been contaminated is to bury it in a toxic landfill. Do you want your house and your furnishings and your memories buried? Do you want a toxic landfill next to you? Chlorine bleach is only useful for *decontaminating* surfaces and items that it will not harm, such as bath tile, walls and windows. Textiles, such as rugs, upholstery and draperies, cannot be washed with chlorine bleach because it will destroy them. Chlorine bleach is also considered to be a contaminant.

A specialist in World War II nerve gases (volatile, synthetic pesticide poisons) suggested to wash or *fumigate* everything with ammonia to help decontaminate these toxins.. .but the simplest and most effective way to remove toxic contamination from our buildings and vehicles is not to apply **any more** dangerous poisons! **The U. S. News and World Report noted in the 1990s that 25% of the World’s mammal species are now on the edge of extinction! Leaky in 2001 said we will lose 50,000 to 100,000 species of plants, mammals and insects accidentally each year. We know there are about 50 to 60 million insects; we have named about 1,000,000 and only about 1,000 are considered pests. Over half of the 1,000 pests are resistant to “registered” insecticide poisons. We have waged all out war on insect pests for about 60 years and have never controlled, much less eliminated even one pest species.**

<http://www.getipm.com/personal/invitation/invite.htm>

“We have met the enemy and he is us” — Pogo

“It is impossible to eliminate all risks associated with use of this product,” Dow’s label.

“Do not go where the beaten path leads, rather - go out where there is no trail. Look to the turtle ... he never goes anywhere until he sticks his neck out. No one ever wins unless they risk losing.”

“Who would want to live in a world which is just not quite fatal.”
Rachel Carson, *Silent Spring*

Protective Chemicals and Poisons? Many well intentioned past *protective* “solutions” have resurrected themselves today as problems or threats. Arsenic was used from the Civil War to 1910 as a major part of embalming fluids; asbestos was installed to fireproof structures; landfills were intended to *improve* sanitary conditions and volatile pesticide poisons were originally supposed to *protect* us against the damaging effects of insects and weeds. Potential adverse health and/or environmental problems were simply not a concern of the time. All of these “old” protective practices all started out being sold as cures! Today we must be concerned not to allow any more *protective cures* come back to haunt us. When *Silent Spring* was published in 1962, only about 700,000 pounds of synthetic poisons were used in the U. S. annually...today, yearly (“protective”) volatile, synthetic pesticide poison use has topped 4.5 **billion** pounds! Just a few of the problems with volatile pesticide poisons are:

- A. Poisons do not stay where they are supposed to stay...they volatilize and/or drift.
- B. Poisons do not discriminate enough in what they kill...they kill everything.
- C. Pests build up a resistance...people do not.
- D. Pests can become immune...people do not.
- E. Some pesticide poisons are stored in animal tissue, some are carcinogenic; all are toxic.
- F. Virtually all poisons are neurotoxins and/or contain xylene as an unregistered “inert”.
- G. Many poisons contain contaminants or are changed into even more deadly poisons as they age or enter our bodies.
- H. The combined effect or synergistic danger of only two different pesticide poisons may be a 1,000 times more deadly - but no one tests for these effects.

Over 30 years later most of us have experienced springs with fewer songbirds, honeybees and butterflies, fish sick or dead in our lakes and streams, and the absence of beneficial insects like ladybugs...not to mention the phenomenal increase in cancer, chemical sensitivity, birth defects, flu-like illnesses and immune deficiency diseases in our own families. We must not let Rachel Carson’s bleak vision for the future come completely to pass. More than ever, we must recognize the warnings we are being given and act on them before it’s too late. Unlike Rachel Carson’s *Silent Spring* which alerted some of us to the problems (but gave no solutions or alternatives) this manual gives you literally thousands of safer alternatives that actually work better than the volatile, synthetic pesticide poisons that are killing our Earth and us!

Did you ever wonder why many volatile, synthetic pesticide poisons, including Dow Dursban TC Termiticide Concentrate, notes, “Do not use or store near heat...?” and why all the Dow labeling advises the applicator to know where all the heat ducts are and if the crawl is used as a plenum air space before treating?...and why the poison industry continually advises its applicators to use extreme caution when treating near heat ducts and to never treat plenum air spaces? The Dow Material Safety Data Sheet (MSDS) with a 5/22/89 effective date notes ingredients of 42.8% chlorpyrifos and 57.2% xylene range aromatic solvent proprietary emulsifiers...avoid heating above 122° F. Hazardous decomposition products...hydrogen chloride, ethyl sulfide, diethyl sulfide and nitrogen oxides can be formed.” Mobil Oil Corporation’s MSDS dated 11/15/93 notes that the flash point of xylene is (only) 81° F...that carbon monoxide is a hazardous combustion product...Exxon’s MSDS notes on “Materials and conditions to avoid incompatibility...”(any) temperatures above ambient.” The reportable quantity of hazardous substances under SARA, Section 304 and CERCLA for chlorpyrifos is only 1 pound.



By itself, the Material Safety Data Sheet (MSDS) for xylene clearly states that (volatile) xylene is not and cannot legally be used around people - yet when we add the active ingredient in poison to it - both the poison and the xylene can be *safely* applied inside buildings that are highly energy efficient. By itself, xylene can cross the placental barrier and cause miscarriages. Warning: Approximately 93% of all “registered”, volatile, synthetic pesticide poisons including Dursban contain “unregistered” amounts of xylene as an “inert”. What about the “active” total poison formula’s (synergistic) effect on us? The half life of xylene is 9 years!

Note: There are 4 pounds per gallon of the “registered” active ingredient, chlorpyrifos, in Dursban TC concentrate and usually at least several gallons of (the organophosphate poison) concentrate were routinely used on a termite job. Way more than the 1 pound reportable amount of hazardous substances. Thus, under SARA, making the “treated” area areportable area.

Richard J. Lewis, Sr. in the 2nd Edition of his Hazardous Chemicals Desk Reference noted, “Chlorpyrifos...when heated to decomposition (it) emits very toxic fumes of CL, NO_{x1}, PO_x, and SO_{x1}.... Sulfotep (a manufacturing contaminant in chlorpyrifos) ...when heated to decomposition (it) emits toxic fumes of PO_x and SO_x...if my chemistry does not fail me...these fumes when combined with the moisture found in eyes and lungs will become acids, e.g., sulfuric and nitric acid, which, obviously, are severe eye and lung irritants.

In a report dated 9/27/91 the EPA audit EIEPFI-05-0117-110378 from the Office of the Inspector General noted in their Summary of Findings, “EPA did not ensure (1) adequate enforcement of its Inerts Strategy, (2) prompt review of the potential effects of inert ingredients on humans and the environment, and (3) the accuracy of information on inerts. These conditions were caused by the relatively low priority inerts have received within EPA. As a result, EPA cannot be certain that the use of *inert* ingredients in pesticides will not harm humans or the environment.



EPA noted on the EPA Data Call-In Status Sheet: Methamidophos, Aug. 1993, “Organophosphate and carbamate (pesticide) poisonings alone are responsible for about 70% of hospitalized occupational poisoning both nationally and in California, yet they account for less than 20% of total pesticide (insecticide and herbicide) poison use.

Organophosphate and carbamate poisons primarily affect the nervous system, causing weakness, headache, sweating and nausea that initially are often mistaken for cold or flu symptoms. More severe poisoning cases result in pinpoint pupils, blurred vision, profuse salivation, vomiting, diarrhea and abdominal cramping.



Loss of consciousness, incontinence, pulmonary edema, convulsions or slurred speech indicate life-threatening poisoning. Coma and death also result from severe poisoning.

Furthermore, increasing evidence indicates that some poisoning victims experience delayed or persistent neurological and psychiatric effects, including short-term memory loss, difficulty concentrating, depression, fatigue, irritability and long-term eye effects such as blurred vision.”

Some commercial pyrethrum insecticides also contain organophosphate or carbamate insecticide poisons. These are included because the rapid paralytic effect of pyrethrins on insects is not always lethal. (EPA 3/89 540/9-88-001, pg. 25). Often sprayers and tanks of the applicators already contain other poison residues and new poisons are simply added to the toxic brew.

As few as 2 - 7 chlorpyrifos-containing flea dips or shampoos per day have been calculated to contaminate a sewage treatment system serving 400,000 residents. (Regional Monitoring News, Winter 1995-6).

The EPA Environmental News 2/25/94 issue noted “Sixteen defendants, with criminal convictions for laboratory data fraud in the Craven Laboratories, Inc. case were sentenced today in Austin, an EPA official announced in Dallas...the falsified data were produced by Craven for a virtual “Who’s Who”...including...Dow Elanco, etc.

An academic study estimated that 25% of public water supplies are polluted with volatile, organic chemicals. Each year, 900,000 illnesses are caused by unsafe drinking water.

In the 1990s the New York Times reported that Dow researchers knew the dangers of silicone 20 years ago. Two teams of scientists came to different conclusions about the safety of silicone; then, one team found that some forms of silicone, including the type used in breast implants, can harm the immune system. Frederick Ellis, Esq. noted, “It establishes that Dow Corning was well aware of the immunological effects of certain silicone compounds.

They can say what they want 20 years later, but they made a decision based on profits and not on the safety of the materials.” On 5/3/94 when I spoke at The Press club regarding the dangers of synthetic poisons including that of miscarriage, an older man confided to me that after spraying his basement with chlordane to control powder post beetles early in his marriage his wife suffered 11 miscarriages!

Volatile Pesticide Poisons Challenge Human Immunity - According to a study by the World Resources Institute, many popular pesticide poisons may impair the body’s ability to fight infection. Children living in areas where “registered” pesticides have been most heavily applied have experienced elevated rates of acute respiratory diseases, skin disease, ear infections, tuberculosis, and dental cavities. Scientists studying these children have documented suppressed T cells, the white blood cells that help control the body’s immune defenses. In some areas children are so immuno-compromised they can’t be vaccinated because they don’t produce any antibodies. Science News, Vol. 149, 3/9/96. Dr. Janette Sherman has told me personally in the 1990s she was aware of nine children with in utero exposure to the pesticide Dursban were born with an unusual pattern of birth defects involving the eye, ear, palate, teeth, heart, feet, nipples, genitalia and brain. Similar defects have been reported in test animals and other children exposed to similar pesticides.

In the 1990s Ohio Republican Governor George Voinovich signed a bill that allows growers to sue people (the media and environmental groups) who make statements on pesticide contamination and those people who question the “safety” of the (poisoned) food they produce. Ohio became the 12th state to pass such a “law”. It is becoming more and more difficult to learn or speak honestly about the inherent but hidden risks and dangers that synthetic pesticide poison usage creates. **What ever happened to freedom of speech?** Obviously, the poison industry can say poisons are “safe” in direct violation of federal law, but G-d help you if you say poisons are not safe! Who are these people who are trampling down our constitutional right of freedom of speech?

In the 1990s Wayne Sinclair, M.D. at http://www.chem-tox.com/pregnancy/learning_disabilities.htm noted: The unborn child is now being shown to be far more vulnerable to developing neurological damage during pregnancy than previously thought. An increasing number of neurotoxic compounds are being identified in today’s modern society (not present 30-50 years ago) which can weaken or damage a child’s healthy brain development. The effects of these chemical exposures can then become evident in later years as learning disabilities, attention deficit disorders, mental retardation or personality and behavior difficulties such as hyperactivity, aggression or even violent tendencies and lack of conscience.

Also receiving increased documentation is research showing exposure of the father to various chemical compounds during the 65 days prior to conception (the time required to complete sperm development in the testicles) can increase the risk for various birth defects and symptoms common in special education students. The names given to the science which studies these phenomena are *Pregnancy Toxicology, Developmental Neurotoxicology and Behavioral Toxicology*.

“Registered” pesticide poison exposure to pregnant women generates considerable concern as these chemicals are intentionally designed to damage the nervous system. This concern is underscored when it is realized the total extent to which all of us are exposed to pesticide poisons. In fact, evidence now shows that everyone is exposed to some level of pesticide poisons every second of every day. For instance, in a governmental research project conducted by the National Institute of Environmental Health Sciences, Dr. Robert Murphy reported that in a large random sample of the general population, the *banned* DDT was found in 100% of the blood samples tested at an average level of 3.3 parts per billion (ppb). *Banned* chlordane was found in the blood of approximately 95% of the population. Other pesticides and chemicals found in over 90% of the population include *banned* dieldrin and hexachlorobenzene (Dieldrin is a pesticide previously banned in the U. S. but is still used on foods imported from other countries). Information from a related Environmental Protection Agency project (based upon 6,000 urine samples) identified residues of six pesticide- (poison) related compounds, four carbamate-pesticide poison metabolites, and suspected eight metabolites of organophosphate insecticide poisons. U. S. Customs records from 1992 reveal that several million pounds of highly profitable unregistered, cancelled or suspended pesticide poisons were loaded on ships and sold to our friends overseas!

Food sources contribute a significant amount of chemical (poison) contamination. In an analysis of figures from the Florida Department of Agriculture in Tallahassee, Florida, it was shown that 19% of lettuce samples contained DDT (although DDT was *banned* it is still used on crops imported into the U. S. as well as being found as a contaminant or “inert” in the frequently used citrus pesticide poison, Kelthane). Also 65% of potatoes were found

to contain the pesticide poison, aldicarb (temik), which is nearly 100 times more poisonous and deadly than DDT.

In her book, "Living Downstream" Sandra Steingraber notes that "to the 89% of Illinois that is farmland, an estimated 54 million pounds of (volatile) synthetic pesticide (poisons) are applied each year. Introduced into Illinois at the end of World War II, these chemical poisons quietly familiarized themselves with the landscape. In 1950 less than 10% of the corn fields were sprayed with pesticides (poisons). In 1993, 99% were chemically "treated" (with poison)." In 1993, 91% of Illinois' rivers and streams showed they were contaminated with pesticide poisons! Pesticide poison levels in spring surface water are sevenfold those of winter. A recent study showed one-quarter of private wells tested in Central Illinois contained agricultural chemicals (poisons). Some of the pesticide poisons that cause cancer were "banned" for use generations ago, but the resulting contamination of these formerly "registered" poisons still lingers and endures to haunt and harm us.

A few interesting facts on pesticide poisons were reported in a 1993 issue of USA Today Magazine:

- ☠ One billion pounds of pesticide poisons were routinely added to the environment every year. If put in 100-pound sacks and laid end to end, they would completely circle the world! Today our annual use of 4.5 billion pounds of pesticide poison in just the U. S. A. would completely circle the world about 5 times!
- ☠ The EPA has estimated that one out of every 10 public drinking water wells in the U. S. contains pesticides, as well as more than 440,000 rural private wells. At a minimum, over 1,300,000 people drink water contaminated with one or more of these dangerous poisons!
- ☠ Pesticide poisons had already been found in thousands of lakes, rivers, and waterways throughout the nation. Agriculture is the number-one source of surface water pollution in the U. S.

In June, 1993, the National Academy of Sciences (NAS) released its long-awaited report on the health hazards posed to infants and young children from exposure to pesticide poisons in the food supply. The Academy stated that any pesticide poisons are harmful to the environment and are known or suspected to be toxic to humans. They can produce a wide range of adverse effects on human health that include acute neurologic toxicity, cancer, reproductive dysfunction, and possible dysfunction of the immune and endocrine systems. Among the NAS's critical findings, existing pesticide poison policies do not protect the young adequately, instead the policies are treating kids as "little adults." Unique dietary patterns are ignored, although they result in far greater exposure to multiple pesticide poisons in food, by body weight, than occur in the adult population. The NAS expressed particular concern over children's dietary exposure to neurotoxic pesticide poisons stating that children tend to retain a greater portion of a given dose of certain toxins than adults and are not as capable of detoxifying them in their bodies. They are at greater risk from neurotoxins since the nervous system in an infant or young child has not yet developed fully.

Although some active ingredients in "registered" pesticide poisons are tested for some (acute) health effects such as cancer, skin irritation, fatality risk, and major birth defects, they are currently not required to be tested for subtle neurological effects such as with memory, learning problems or effects upon behavior. Nor are the "inerts", contaminants, impurities, metabolites, decomposition products or chronic or synergistic effects even considered.

Chlordane Exposure - In 1987, over 250 adults and children were exposed to the pesticide poison chlordane when the wooden building surfaces and soil around their apartment complex was sprayed. Their exposure came from the vapors that entered into their home for years after the chemical's application. Levels inside the homes were reported above 0.5 ug/m³ (the supposed old *interim* evacuation level).

In June-September 1994, 216 adult occupants or former residents of the apartment complex were examined by researchers at the University of Southern California School of Medicine in Los Angeles. The 109 women and 97 men were given a battery of neurological tests to determine if the low levels of chlordane in their apartments was causing any harmful effects. The tests given are considered sensitive indicators of neurotoxicity. To determine if chlordane was in fact causing neurological problems, the test scores of the chlordane exposed adults were compared to the test scores of 94 women and 68 men from Houston, known not to have been exposed to chlordane.

Results of the **testing showed many negative effects upon mental function from the low levels of air chlordane contamination.** Not only were test scores lower for reaction time, balance, and memory, but also

Common Pesticide Poisons Cause Hyperactivity in Test Animals Even After A Single Dose. In the 1990s, groups of test animals exposed to different pesticide poisons used in agriculture and lawn care showed over 50% more hyperactivity following a single exposure to the poison. One of the main goals of this experiment, conducted by Dr. J. A. Mitchell and colleagues at the University of Michigan, was to investigate activity behavioral changes in test animals (male Swiss mice) following a single exposure to one of 4 different dosages of weed killers and fungicide poisons. The chemicals used included Lasso (containing alachlor), Basalin (containing fluchloralin), Premiere (containing dinoseb) and the fungicide Maneb-80 (80% Maneb). Test dosages ranged from a very low .4 mg/kg to 4 mg/kg to 40 mg/kg. Even the largest dose was still below the LD-50 for the animals (the amount needed to kill 50% of the test animals). According to the researchers, the herbicide poisons and fungicide poisons have received few reports investigating their toxicity while their yearly growth and production have grown far more than the insecticide poisons. One recent study showed that dogs living in households where the yards were sprayed with 2,4-D were significantly more likely to be diagnosed with canine lymphoma than those dogs whose owners did not use weed killers. Risk rose with the number of applications. The incidence of lymphoma doubled among pet dogs whose owners applied lawn chemicals at least four times a year per "Living Downstream".

The detection of hyperactivity was measured by placing the test animals in steel cages that were equipped with electronic motion detectors which used infrared beams to count specific movements by the animals. After the single poison exposure, activity was measured for a 4 hour period. Results showed the weed killer "Lasso" did not show any effects at the very low .4 mg/kg level but did show over a 65% increase in activity at the low 4 mg/kg and a 75% increase at the higher 40 mg/kg level. The weed killer Dinoseb also showed no activity increases at the lowest .4 mg/kg dose but did show a 15% increase at the 4 mg/kg level and a 54% increase at the larger 40 mg/kg level. Other researchers have reported that activity provides a sensitive measure for evaluating the behavioral effects of the pyrethroid pesticide poison, deltamethrin, at doses that did not cause the characteristic neurotoxicological syndrome. In conclusion the researchers stated, *"The results of this study suggest that at least some herbicide poisons, in addition to pyrethrins, organophosphate, and carbamate pesticide poisons, can produce behavioral manifestations following accidental exposure ... The effects of the pesticide poisons on activity also support the hypothesis that many of these agents may adversely affect the central nervous system."*

Pesticide Poisons Mimic Human Hormones Suspected of Damaging Reproductive System. Pesticide poisons and other chemicals are being found to resemble the hormone estrogen, thereby creating serious problems for the reproductive system, according to research by Dr. Richard M. Sharpe of the University of Edinburgh and Dr. Niels Skakkebaek of the University of Copenhagen. The substances that concern the researchers most include DDT, PCB'S, dioxins and some petroleum by-products.

Sperm count, according to Skakkebaek, has taken a "nose-dive" during the past half century. They looked at 61 papers on male fertility published between 1938 and 1990, covering data on almost 15,000 men from around the world. According to Skakkebaek and his Danish colleagues, the mean sperm count had declined from 113 million per milliliter in 1940 to only 66 million per milliliter in 1990. Moreover, the volume of semen in a single ejaculation had also fallen from 3.40 to 2.75 milliliters. Those figures suggest that, on average, men now produce less than half as many sperm as did men 50 years ago. Chemicals with affinities for estrogen receptors on cells could cause these problems, state the researchers. Animal studies have shown that if male fetuses are exposed to high doses of estrogens, they may develop with many female characteristics. Lower doses may alter the differentiation and multiplication of the germ cells that eventually give rise to sperm, the researchers note. Dr. Doris J. Rapp has noted we now have homosexual seagulls!

Dr. John A McLachlan, director of intramural research at the National Institute of Environmental Health Sciences states, *"some of the environmental chemicals (poisons) that have estrogenic activity also seem to have a long half-life and can bioaccumulate"* in the body's fat. One group, he explains, looked at the effects of the insecticide kepone that is only weakly estrogenic. At first, female rats exposed to part-per -billion levels of kepone showed no effects, but after about nine weeks of exposure the chemical reached potent levels, and the animals' reproductive systems locked into a perpetual ovulatory state. The World Wildlife Fund has gathered evidence that some seagulls, fish and other creatures in polluted areas exhibit abnormal reproductive behavior or physiology. **Scientific American, September, 1993.**

"Anyone know what organophosphate (OP) is in Black Knight?"

worse scores were observed in the test checking for attention deficits (digit symbol) and all tests of mood scores including tension, depression, anger, vigor and fatigue. Going beyond the neurological testing, both groups were also investigated for many common symptoms and illnesses. Those which were significantly more common in the chlordane exposed group included asthma, allergies, production of phlegm, chronic bronchitis by Medical Research Council criteria, and wheezing with and without shortness of breath. Headaches and indigestion were also more common among the chlordane exposed individuals.

In summary Dr. Kilburn and Thornton summarized their findings by stating:

"The exposure of our study group appears to be from indoor air, due to the outgassing of chlordane from the wooden surfaces of the apartment complex.. Examination of subjects exposed in their homes to chlordane as compared to referent subjects showed significant, and we suggest important impairment of both the neurophysiological and psychological functions including mood states. Accompanying these changes were significant differences in symptom frequency and in respiratory rheumatic and cardiovascular disease symptoms. The most notable changes were slowing of reaction time, balance dysfunction as revealed by increased sway speed, reduction in cognitive function, perceptual motor speed, and immediate and delayed verbal recall. The neurobehavioral impairments measured in this environmental epidemiological study were similar to those noted in patients exposed to chlordane at home. These impairments include probably irreversible dysfunction of the brain. Possible effects on trigeminal nerve-pons-facial nerve function were suggested for the first time. Confirmatory studies, including follow-up after removal from exposure, are urgently needed. Meanwhile, chlordane use should be prohibited worldwide. (Thank G-d it finally was in 1997.)

This study should generate heightened concern because of the large number of neurological and health effects seen at chlordane air levels of above 0.5 ug/m³ (supposedly the evacuation level, but now the typical safe levels for most U. S. homes) and statements by researchers that developing children are harmed more by chemicals than adults. Dr. Kaye H. Kilburn and John C. Thornton, Environmental Sciences Laboratory, University of Southern California School of Medicine, Los Angeles, *Environmental Health Perspectives*, 103:690-694, 1995

It is a common misconception among the public is that volatile pesticide poisons used for termite or insect control don't find their way into the breathable air once applied. In fact, the long-term exposure of home and building occupants from the evaporation of these volatile poisons has been found to continue in some cases for many decades after application and has resulted in the permanent evacuation of some buildings.

In the 1990s the rather startling figures coming in from testing homes throughout the U. S. show approximately 75% of homes built before April of 1988 are routinely being found to contain air levels of the previously "registered" pesticide (poison) chlordane. A study by Dr. Richard Fenske at Rutgers University in New Jersey found at least 34% of homes built before 1982 contained air chlordane levels over the evacuation limit of 5 micrograms per cubic meter of air, an interim evacuation level set by the Air Force and the National Academy of Sciences. There is no definite data on the number of homes in the United States that have been treated with chlordane, however, in 1987 the National Pest Control Association estimated that 1.5 million homes per year were treated with volatile carcinogens for termite control. Taking the information from several studies regarding chlordane being found in homes today, it could be estimated that a minimum of 100-185 million U. S. residents are still breathing significant levels of chlordane in their homes daily and 10-20 million U. S. residents could still be living in dangerous homes where the indoor air levels of chlordane are exceeding even the recommended *interim* evacuation level set by the National Academy of Sciences and the U. S. Air Force.

Once the scale of this poison pollution problem is finally brought to the public's attention, it should dwarf the concerns generated by indoor levels of formaldehyde and radon. In a review of the chlordane home contamination problem and its link to childhood cancers and blood disorders, Dr. David Ozonoff, of the Boston University School of Public Health stated, "*a national program for monitoring all homes treated is urgently needed to detect persistent contamination.*"

If this wasn't enough to be concerned about, Dr. Ozonoff's went on to say, "*It should also be noted that (previously "registered") commercial chlordane formulations (also) contain carcinogenic (unregistered) "inert ingredients" and contaminants, such as propylene oxide, hexachlorobutadiene, and carbon tetrachloride, apart from some 40 other ingredients so far undisclosed by the manufacturer, formulators and applicators of C/H (chlordane/heptachlor).*"

Pesticides in planes deadly for some

The Associated Press

<p>Washington - One person has died and many others have become quite sick because 24 countries spray arriving airline passengers with a strong pesticide, according to the chairman of the Senate Agricultural Committee.</p> <p>"The stuff in those cans that flight attendants spray over your heads or send out through plan ventilation systems is not an air-freshener," Sen. Patrick Leahy, D-Vt., said Thursday. "It is a pesticide commonly known as Black Knight Roach Killer.</p> <p>"We know this chemical is not safe to be sprayed in planes," said Leahy, howspoke at a news conference with Transportation Secretary Frederic Pena and Rep. Peter DeFazio, D-Ore. Leahy said the spray has killed one person</p>	<p>and made countless others sick.</p> <p>The officials released a list of the 24 countries, plus U.S. territory of American Samos, that require spraying, in hopes of pressuring the countries to stop.</p> <p>Those countries require airlines to spray inside plane cabins shortly before landing to kill bugs and prevent the spread of disease. Ventilation systems sometimes are turned off as the flight attendants spray the chemical into the air, allowing it to settle on passengers and crew.</p> <p>Most people suffer no more than mild discomfort, but the chemical can causedifficulties for people with breathing problems or who are sensitive to chemicals.</p>	<p>The United States banned spraying on domestic flights after the Centers for Disease Control found that it was not effective in preventing the spread of disease or insects.</p> <p>Passengers on U.S. military aircraft - including the president and members of Congress - are routinely sprayed when they come home from some overseas locations, said DeFazio spokeswoman Wendy Levine.</p> <p>Australia, New Zealand and Panama allow airlines to spray when no passengers are on board.</p>
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Note: It is interesting that the (Michigan) pest control *industry* can still apply this or any type of ready-to-use poison in our schools legally without bothering to be licensed!

In 1993, Researchers at the N. Y. University School of Medicine noted that environmental exposures to chemicals that inhibit cholinesterase can also produce aggressive and violent behavior. (Clinical Pearls 1993 1994:45)

One day (hopefully in the near future) people will be astonished we actually paid someone to contaminate our homes and buildings with volatile, synthetic pesticide poisons - just as we now wonder about the mental stability of people who actually paid someone to put asbestos in their *old* buildings.

Many years ago Thoreau asked the question, "What is the use of a home if you do not have a planet tolerable enough to put it on?" The Author would add, "What is the use of a home, school or any building if it is not tolerable enough to live in?"

In 1995, There were 67,159 calls to U. S. Poison Control Centers regarding exposures to pesticide poisons and 9,341 reported cases of herbicide poisoning. Laura Dye of EPA's Office of Prevention, Pesticides and Toxic Substances noted that 5 different surveys in the past 15 years have all found that most pesticide (poison) users never read the label directions!

Just several examples of needless pesticide poison contamination: In 1994, in Louisiana's Assumption Parish, flagrant synthetic pesticide poison violations recently caused the closing of four schools. Louisiana Commissioner of Agriculture, Bob Odom, told the School Board that if the person who applied the product had (ever) bothered to read the label, they would not have had a pesticide contamination problem. This contamination

was caused when a *professional* pest control operator reportedly sold or gave a very restricted-use carcinogen - lindane - to some school maintenance people, who did not hold any type of license or certification from the Department of Agriculture and also had not successfully completed any training course. The staff applied lindane indoors for flea control, a direct violation of the label, in at least 14 temporary buildings at two schools. At last report, 9 of the 14 buildings have been closed indefinitely, while the other 5 will try to be cleaned. The schools are also dealing with at least 68 health related complaints as a result of this *pest control*. Commissioner Odom stated that because the product remained detectable in the soil of at least one school after the maintenance people also apparently applied lindane to the outside soil for flea control, the board will have to remove and replace almost four acres of sod in the rear of the school. Odom stated that there are children on the grounds five days a week and he wants a non-detectable level and removing the soil is the only thing he will accept. Odom stated that the Department will now launch a program to ensure that the problems based on wrongful application of poisons in schools will not reoccur. "We believe that all schools should have at least one person who is certified by the Department of Agriculture to apply pesticide poisons and we will help to train them," Odom said. One has to wonder why the *professional* PCO gave the untrained school people the very dangerous and highly restricted lindane for flea control and where else that terrible poison was routinely and *professionally* being used. The cost just for clean-up of using lindane in one school system in Louisiana will exceed \$400,000. The lindane was not registered for use within the State of Louisiana - yet it is very obvious even banned poisons are **still** being used *professionally*.

In the 1990s *The Cleveland Plain Dealer*, Ohio's largest newspaper in Elyria, Ohio, a city just west of Cleveland, reported Lutellis Kilgore, who bills himself as an exterminator, has been spraying hundreds of homes with methyl parathion, an insecticide poison that can only be used under very controlled conditions for the control of insects on cotton, but it should never be used indoors. Kilgore said that he has been operating his part-time business for about 10 years out of the basement of his home. Customers found him by word of mouth and they were satisfied with his work, which was usually accomplished in one visit. "They said I had done a good job and I wasn't ripping them off like the other exterminators who go 10 to 12 times." Kilgore (interesting name) is unlicensed but had no problem obtaining even this extremely dangerous/volatile/synthetic pesticide poison. The Ohio Department of Agriculture is involved in cleaning up the contamination in the homes and businesses that Kilgore has *treated* along with the U. S. Environmental Protection Agency (EPA), the Center for Disease Control and the Coast Guard Atlantic Team is also assisting along with several regional and local governmental agencies. Men in white protective suits are seen walking across the pages of *The Cleveland Plain Dealer*. Cost of clean-up could reach \$8 million! *Professional* pest control people in Alabama, Michigan, Ohio, Louisiana and Mississippi have been caught spraying methyl parathion (which is strictly registered for agricultural use only) inside buildings for roach control which is not only illegal and extremely dangerous to the inhabitants, but the clean-up costs are astronomical! Always check the label of the poisons that are being used by *professionals* for the target pests, rates, restrictions and especially for the areas in which the synthetic pesticide poisons can be legally used, or better still **never use any of these terrible toxins**.

In the 1990s a study of DEET, permethrin and pyridostigmine showed that when hens (Gulf War Veterans) were exposed to all three toxins, serious nervous toxicity resulted in the *hens* from the failure of the *hens'* livers to efficiently metabolize these chemicals. Virtually **all** pesticide poisons are routinely applied in combinations; yet no research is being done to determine the exponential dangers that are being created on ever-increasing basis, or on the totally new and unregistered poisons that are being "brewed".

On October 10, 1996 the Grand Rapids Press noted the entire Midwest was producing grotesquely misshapen and terribly deformed frogs. In Minnesota alone 54 of the State's 87 counties reported hundreds of sightings of deformed frogs. Obviously, what's bad for frogs will be bad for at least *some* of us humans. Let's help get everyone to stop using any toxins inside or outside their homes, schools, offices, hospitals, care facilities, buses, yards, gardens or on themselves, their kids or their pets.

A jury awarded \$1 million to Melanie Zanini in her case against Orkin. Knowing she had multiple chemical sensitivity (MCS), Ms. Zanini had requested and obtained an agreement from an Orkin Applicator not to spray with certain organophosphate poisons at her workplace. Without her knowledge, the Applicator sprayed chlorpyrifos (Dursban™) combined with a form of pyrethrum. When Ms. Zanini returned to work the next day, she immediately became ill, but did not know why - she found out only much later why she became ill - "Since these folks (MCS patients) do exist and have real, verifiable symptoms, (they) need to be protected. And since there are safer alternatives, perhaps at some time the (poison) industry will choose or be compelled to use them," stated Robert

J. McKee, attorney (“MCS Plaintiff Awarded \$1 Million in Pesticide Case”, Medical and Legal Briefs, M/A 1996).

Did “they” learn? Thomas C. Diederich, V. P. Government Relations for Orkin Exterminating Co. of Atlanta commented in the October, 1996 newsletter of the Florida Pest Control Association, wherein he reviewed “Our Stolen Future”, “Cheez...we have not been able to eliminate cockroaches with the stuff, but now it may be the demise of the rug rat!” - Apparently not! Mr. **Diederich** admits poisons do not even control pests and Orkin thinks kids are “rug rats” and Orkin, obviously, was going to continue to spray dangerous poisons that do not control pests! **TOXICOLOGY** - Toxicology is the study of the nature, effects and detection of poisons. As Paracelsus said specifically speaking of medicines over 400 years ago, “All substances are poisons; there is none which is not a poison. The right dose differentiates a poison and a remedy.” This means no chemical is *safe* under all conditions of exposure, but some chemicals may be used *safely* by limiting the dose or exposure. There are 4 factors to consider in toxicological risk estimates. They are: (1) the chemical or physical agent; (2) the biological systems involved; (3) the effect or response, and (4) the exposure situation. There are three general areas of toxicology: (1) descriptive toxicology, which includes direct toxicity testing on animals (usually small mammals), plants and the ecosystem; (2) mechanistic toxicology, which tries to find out how toxic agents cause their poisoning effects on living organisms, and (3) regulatory toxicology, which attempts to establish and enforce safe levels of exposure to toxic agents in the workplace and the environment. Many federal agencies are involved, including the FDA, EPA, OSHA, CPSC and DOT.

Toxic agents are classified in many different ways: (1) by the target organ they affect such as liver, kidney, bone marrow or brain; (2) by their source, such as animal, plant, mineral or synthetic toxins; (3) by their effects, such as cancer, genetic mutation, liver disease, brain injury or birth defects; (4) by their physical state and form (solid, gaseous or liquid); (5) by their physical characteristics and labeling requirements, such as explosive, flammable or corrosive; (6) by their chemical type, such as heavy metal, aromatic amine or halogenated hydrocarbon; (7) by their poisoning potential, ranging from acute to chronic and extremely toxic to slightly toxic; (8) by their biochemical mechanisms of action, such as irritants, sensitizers or carcinogens, and (9) by their route of exposure, such as inhalation, skin contact and ingestion.

Allergic and allergic-type reactions may be triggered by: (1) an immune sensitization mechanism; (2) an autoimmune response, and (3) idiosyncratic reactions (adverse reaction specific to an individual). Toxicology also must differentiate between mechanisms that cause an immediate or rapid onset of symptoms and those with delayed toxicity. Most cancers, for example, usually have a 20 - 30 year latency period.

Depending on all the factors discussed above and on treatment, toxic effects may be reversible or not. The liver can usually regenerate, while the central nervous system usually cannot. Occupational exposures often involve more than a single toxin. This means the interactions of the various chemicals must be taken into account, and the realm of interaction is, in itself, quite complex. The combined effect or toxicity of multiple exposures may be: (1) additive, in which the combined effect is equal to the sum of the exposures involved ($2 + 3 = 5$); (2) synergistic, in which the total effect is greater than the sum of the individual effects; (3) potentiated, in which the toxicity of an exposure is enhanced when combined with other exposures that would not on their own be toxic, or (4) antagonistic, in which one toxin interferes with the action of another reducing their overall toxicity. Dispositional antagonism refers to a biological system effecting a combined exposure by altering the absorption, biotransformation, distribution or excretion of the toxic agent(s), so that less toxic material reaches the target organ(s) and/or the material is excreted and/or metabolized more rapidly, such as in the role of antioxidants. Receptor antagonism results from 2 or more agents competing to bind with the same receptor(s).

Binding sites occupied by the less toxic agent thereby inhibit the overall effect of the more toxic agent. For example, the use of oxygen for carbon monoxide poisoning. Other important concepts that enter into the toxicologist's calculations are: (1) tolerance, which varies with individual circumstances and may increase or decrease over time depending on the amount of toxin(s) reaching the target organ(s) and the evolving responsiveness of the organ(s), and (2) dose response, which quantifies the relationship between exposure and effect (response). A standard measure of toxic potential is the LD_{50} , which is the dose that causes death in 50% of those exposed. The variation in dose response (and LD_{50}) between species is due to the *selective* toxicity of most agents which do not affect all species in the same way. This greatly complicates the interpretation of data from animal testing. Toxicity has been largely defined in terms of short-term poisoning or cancer-causing potential. If a chemical dose doesn't kill you right away or cause cancer later on, then it is generally presumed “safe”. People thought by diluting pollutants to low enough concentrations in the air or water they could be rendered harmless to humans and

wildlife. An increasing body of evidence indicates that certain pollutants including “registered” pesticide poisons, some known agents of cancer, others previously considered benign, are capable of entering animals and humans and tampering with vital biological systems at doses well below those thought to be carcinogenic. Researchers say that each person harbors levels of some of these chemicals. Doses of these chemicals considered “safe” for an adult can cause irreparable harm to a fetus. Nothing that has been created specifically to destroy life can honestly be considered “safe” at any detectable level - **there are no safe poisons, only toxic poisons!**

National Pesticide Telecommunications Network - Now National Pesticide Information Center, Provides advice on recognizing and managing pesticide poisoning, toxicology, general pesticide information and emergency response assistance. NPIC is a cooperative effort of Oregon State University and the U.S. EPA, 1-800-858-7378. <http://npic.orst.edu/>

Cause and Effect - We will never know if what we suspect about toxins having an adverse effect on our health is true - at least not from a purely “scientific point-of-view” - because, we will never be allowed to spray poisons on some statistical group of people (compared with an equal number of unsprayed people) to show actual or direct cause and effect. Because we can not spray people - the polluters of our world can continue to state pollution warnings are only based on *junk science* and only made by chemo-phobics and that there is no “sound science” or scientific proof that their poisons pollute, kill or damage our world, people and/or pets. Rachel Carson studied the failed governmental attempts to prevent the Japanese beetle from reaching Iroquois County, Illinois by repeatedly bombing with volatile, synthetic pesticide poisons from the air in the mid-1950’s. Many insect species became sick (or died) from the poison, and were easy prey for insect eating birds and mammals. These creatures then became poisoned in turn and, in ever-widening circles of death, went on to sicken and kill those who fed on their flesh, leaving a landscape devoid of animal life, from pheasants to barnyard cats. The protracted poison war against the targeted pest, the Japanese beetle, on the other hand accomplished nothing; the “pest” continued its westward advance. The planes had been bombing with dieldrin which did remain to contaminate the soil and water for decades to come, like land mines left behind by a retreating army, guaranteeing further ecological tragedies, like the mute testimony of Iroquois County’s dead ground squirrels: found with their mouths full of dirt, they had gnashed at the poisoned soil as they died in agony. Steve House, a friend of mine poisoned by these pesticide poisons, also saw tree squirrels die, the same way, in his native Detroit after they bombed with volatile poisons (DDT) there.

Science loves consistency and checking only one variable at a time, but we are literally inundated with many repeated toxic exposures that are both uncontrolled and chronic. Toxic poison exposures are multiple and enter into us through many routes. Science does not understand when everything is changing all of the time. Humans are not Guinea pigs and can not be held in sterile environments while (genetically similar) others are poisoned to see about the what the *experiment* will produce. People are continually exposed to unknown quantities of unknown chemical pollutants for unknown periods of time. Human poisons and/or carcinogens must, therefore, be determined only by inference. Like Rachel Carson who died of breast cancer 18 months after publishing her Silent Spring, a lot more Americans are now getting and dying from cancer. In 1995, about 3,400 people a day or an estimated 1.2 million U. S. citizens were told, “You have cancer.” **Cancers caused by pesticide poisons and tobacco are truly all preventable.** Steingraber’s book, Living Downstream notes that cancer genes only play a role in at most 10% of all cancers; pesticides, toxic chemicals and other carcinogens in the environment play a much bigger role! Yet Carson and Steingraber are ridiculed!

BUT WHATEVER THE POISON INDUSTRY SAYS AND THE REGULATORS TURN A DEAF EAR TO - VOLATILE, SYNTHETIC PESTICIDE POISONS CAN AND DO SABOTAGE HEALTH, BEHAVIOR AND ACADEMIC PERFORMANCE. Volatile, synthetic pesticide poisons are biologically disruptive, basically untested, **toxic chemicals**, designed to kill. Many of our most commonly used pesticide poisons are carcinogenic and/or neurotoxins which were developed as an outgrowth of nerve gas poison research that developed Sarin and Tabun to kill people, during World War II.

Many of these synthetic poisons were specifically made to be broad spectrum killers, to be highly persistent with long-term residual action and to be mobile/volatile/soluble in our environment; they and/or their contaminants and/or metabolites accumulate and persist in animal and/or human systems and adversely affect anatomical, behavioral, neurological, psychological and/or sexual development. Perhaps their most disquieting or disturbing quality of these poisons is their ability to inflict “silent damage or hidden/latent damage” or damage whose aftermath or symptoms will not emerge until much later in life and cause serious adverse effects on physical and/

or mental and/or reproductive health then. No one - not your pest control applicator, not the U. S. Environmental Protection Agency. Dr. Doris Rapp has noted, "Don't think the human race can't become extinct. Have you seen a dinosaur lately?"

No one can guarantee your safety when you or your loved ones are exposed to any of these volatile poisons! Not surprisingly then, there were approximately 10,000 diagnosed cases of pesticide poisoning in the United States annually during the 1990s, and everyone in the U. S. now has 500 to 1000 chemicals in their bodies that were not in people in 1920. And in the 1990s the World Health Organization conservatively estimated that more than 25 million people were poisoned by pesticide poisons, worldwide, each year, resulting in at least 20,000 deaths. **As Albert Schweitzer stated: "Man has lost the capacity to foresee and forestall. He will end by destroying the earth."**

Volatile, synthetic pesticide poisons are capable of disrupting the normal functioning of every major organ system in the body, but **the nervous system** is the most likely target. The nervous system consists of the brain, the spinal cord and a vast array of nerves and sensory organs. It controls most essential bodily functions like thought, movement, vision, hearing, speech, heart function, respiration, mood, etc.. And even minor changes in the structure or function of this critical system can have profound, long-term consequences. The Centers for Disease Control and Prevention in Atlanta noted 12 million Americans have asthma today, - a rise of 40% since 1982! In 1994, 5,000 Americans died from asthma - 50% more than in 1980!

Young children are much more vulnerable to the lethal effects of volatile, synthetic pesticide poisons, than adults. In testimony before the U. S. Senate Committee on Pesticides in 1992, Herbert Needleman, M. D., of the University of Pittsburgh, and our leading national expert on lead toxicity in children said: "There is no question that pesticide poisons impair children's brain functions as insidiously as lead. When the brain is developing, it lays down connecting pathways. Introducing poisons, such as those contained in pesticides, can fundamentally and irrevocably throw this critical neurological development process off course."

Exposures to volatile, synthetic pesticide poisons (even at extremely low levels) are capable of accumulating in the fatty tissue of the body and of causing malignancies and/or persistent **over-stimulation** of the central nervous system and alterations in brain activity. The adipose tissue (fat) acts as a biological magnifier so that an intake of as little as 1 part per 10 million results in storage of 10 - 15 parts per million - an increase of a 100 fold or more. Children exposed to volatile, synthetic pesticide poisons will have more ear infections, colds, bouts of pneumonia, asthma and flu and are likely to become chemically hypersensitive. These children will often have difficulty concentrating and will exhibit short-term memory loss, attention deficit disorders, hyperactivity, mental confusion, forgetfulness, cognitive impairments, difficulty interpreting the spoken or written word, headache, depression, social withdrawal, blurred vision, seizures, skin irritations, behavioral and emotional problems, anxiety, dizziness, lack of coordination, muscle cramps, muscle tremors, nausea, vomiting, diarrhea, urinary frequency and incontinence, sleep disturbances, chronic fatigue, numbness of the hands and feet, aggressive and violent behavior, and respiratory disorders. Some pesticide-poisoned youngsters will develop chronic, life-long health problems that manifest in reproductive problems (sterility, infertility, birth defects) and degenerative diseases (mental retardation, Parkinson's, Alzheimer's, ALS). Several recent studies have reported on a relationship between childhood pesticide exposure and an increased incidence of brain cancer, non-Hodgkin's lymphoma, soft tissue sarcoma, leukemia and immune system suppression. Research has shown that when patients' blood pesticide levels were reduced **by** an amount as tiny as one tenth of a part per billion, they had I. Q. improvements of between five and fifteen points.

One of the volatile, synthetic pesticide poisons, an organophosphate was the most common poison used in schools; it was/is called Dursban (chlorpyrifos), and it has a half-life greater than 30 days. The amazing thing is Dow sold Dursban for cockroach control and said it provided 90-day control; when Dow sold it for powder post beetle control, it provided years of control, and when Dow sold Dursban for termite control, it said it would provide control for generations. (I am always amazed when a "registered" poison knows when a "registered" poison knows when to break down - it is sort of like "intelligent" smoke that knows enough to only stay in the smoking section.) Organophosphates have the ability to destroy enzymes (e.g., a protective enzyme called cholinesterase) - that perform vital body functions. Organophosphates attack the nervous system in man and insect alike - I have often noted pest control operators drinking amounts of wine and beer and craving pizza - in a subconscious attempt to replace their lost enzymes. In 1992, an Israeli study documented many pesticide related illness' and that organophosphate metabolites are excreted for 4 months after a typical onetime *labeled*

application for cockroach control. In this way, a classroom or home can become a continuing reservoir of constant volatile, synthetic pesticide poison exposure, long after the *labeled* application appears to have dried. The various pesticide vapors build up into an invisible, odorless, toxic chemical soup, that is capable of causing a cascade of toxic reactions, for years to come.

The California Department of Health Services made an estimate of the amount of chlorpyrifos to which a child would be exposed, **one day** after an indoor application. The estimate was based on the amount that the child would breathe, added to the amount the child would absorb through the skin. The estimate was **over 1,700 times the acceptable daily** intake established by the World Health Organization!

In addition to the known individual organophosphate poison dangers there is an exponential increase in danger when several volatile toxins are combined. In the 50's a team of Food and Drug Administration scientists determined that when malathion exposure is combined with another organophosphate (or plasticizing agent) exposure the exponential increase in toxicity may be 50 times as severe - as Rachel Carson noted: Only 1 /100 of the lethal dose of each compound may be fatal when the two are combined! What if several more are combined? This is quite easily understood when you think about ammonia by itself or chlorine bleach by itself - either is not considered very dangerous - but combine the two "safe" materials and you create terrible danger and even death!

Synergism - In the 1990s, research at Duke University noted the Gulf-War Syndrome may have been caused by three ordinarily *harmless* doses of chemicals that, when combined, produce significant neurological damage, research on chickens suggests. The soldiers were given the drug pyridostigmine bromide (PB) to *protect* them against possible nerve gas attack - PB may have limited their bodies' ability to withstand certain synthetic pesticide neurotoxins that were applied to their skin and clothes. According to government reports, the number of veterans who claim they may be ill as a result of their service in the Gulf War in Iraq between August 1990 and April 1991 passed 108,000 in early 1996.

Because of this concern, scientists at the Neurotoxicology Division at the Environmental Protection Agency (EPA) and three other Universities conducted a long term study to determine the effects of combining these chemicals and then observing their effects upon the nervous system of test animals.

The study was conducted by exposing four groups of five hens each to either one or several of these chemicals and at different doses. Researchers continued the exposure daily to the animals for approximately 60 days. During this period investigators looked for various signs of health problems including neurotoxicity.

Results showed animals treated with only PB revealed no difference between controls upon neuropathological examinations (investigations of tissue samples under a microscope). Some animals treated with permethrin or DEET exhibited minor neuropathological changes that consisted of a small increase in the frequency of slightly enlarged axons. (Axons are the main connections between brain cells which send information).

Regarding the effects of combining the chemicals, the researchers stated that the animals treated with the DEET/permethrin combination developed "*hyperexcitability*" between 1 and 4 weeks of dosing. In one animal, a mild gait disturbance was detectable at 27 days that progressed to a stumbling and unsteady gait accompanied by moderate fine body tremors. Microscopic examination of spinal cord and sciatic nerve found mild neuropathological alterations in two of the animals treated with permethrin/DEET which included a significant increase in both the frequency and degree of enlargement of the axons.

One point of neurotoxic interest - even though the dosages of permethrin were well below the amount needed to kill the animals, it was found that when permethrin was combined with DEET it created brain damage within the test animals that is "*similar to those observed following near lethal doses of permethrin*". Drug interaction is discussed in Chapter 13; **medication combined with "registered" pesticide poisons can kill you.**

In conclusion the scientists stated: "***This study demonstrates that concurrent administration of any two compounds of PB, DEET,, and permethrin results in neurotoxicity that is markedly greater than that resulting from treatment with any individual compound..... Both DEET and permethrin have been shown to produce tremors and hyperexcitability in experimental animals (Ambrose et al, 1959; Schoening et al, 1993).... In addition, these findings suggest the need for additional studies into potential health risks***

associated with coexposure of humans to these agents at dosages likely to have been used by the Gulf War veterans.

Of further concern for the pesticide poison permethrin, which brings out further questions on the pesticide poison, is that research has found the chemical undergoes a biological transformation within the human body by what is called esterase and oxidase inhibitors (for the benefit of our scientifically minded), thereby creating a new chemical which researchers say, “*may create unanticipated hazards by enhancing pyrethroid toxicity to mammals.*” In other words, they are saying that this chemical is most likely more dangerous than tests with animals show since the human body can change the chemical into an entirely new and even more toxic chemical. **This is fast becoming the chemical (poison) of choice for children’s (OTC) lice shampoos!**

FACTS ON DEET. DEET is an aromatic amide used as a personal insect repellent against mosquitoes, biting flies, and ticks, among other insects. It has been used since 1946 by the U. S. Army and since 1957 by the general population. Approximately 30% of the U. S. population uses DEET as a lotion, stick, or spray at concentrations between 10 and 100% active ingredient. Extensive and repeated topical applications of DEET resulted in human poisoning including two deaths. Symptoms of poisoning are characterized by tremor, restlessness, slurred speech, seizures, impaired cognitive functions, and coma (McConnell et al., 1986). DEET has been found to be efficiently absorbed through the skin (Windheuser et al., 1982; Spencer et al., 1979). Also, regarding the use of permethrin, this chemical is currently used in schools and homes for general insect or termite treatments. Erroneously, pesticide applicators state that this chemical is the same as pyrethrin (which is a natural pesticide made from the chrysanthemum flower). This is very inaccurate. Although the molecules are somewhat similar, they are still very different and pyrethroid pesticide poisons such as permethrin are showing increased evidence in the medical research of a variety of neurological and immune system damaging effects. Karl F. Jensen, Neurotoxicology Division, U. S. Environmental Protection Agency, Research Triangle Park, NC *Journal of Toxicology and Environmental Health*, 48:35-56, 1996

Unlike insects which quickly develop resistance to these toxins - man, his pets, livestock and wild animals, birds and fish do not. Sperm counts in men are now half what they were in their grandfathers! 1 out of every 7 Americans is significantly impaired from toxic exposure and 1 out of every 2.5 (some oncologists say 1 out of 2!) of us will now get cancer! The aerial drift of one droplet of pesticide poison, on a calm day, was reported at 24 miles. On a windy day, it has been traced halfway around the globe. In spite of the fact we have contaminated the globe our air, water, food and ourselves with trillions of tons of these deadly neurotoxins and carcinogens, we still have not even controlled, much eliminated any of, the pests we are trying to *treat* with poisons.

In the 1990s researchers at the University of Minnesota discovered why “registered” synthetic pesticide poisons triple the rate of non-Hodgkin’s lymphoma. They found a high rate of chromosomal breakage (fractures of the 24th and 18th chromosomes) in farmers who apply these toxins to crops. A study published in the *Medical Journal of Australia* (9/95) found a higher-than-average incidence of volatile, synthetic pesticide poisons in chronic fatigue syndrome (CFS) patients. Substantiated levels of organochlorine pesticide poisons, including the insecticide DDT and fungicide hexachlorobenzene (HCB), were found in people with no known exposure to these toxic poisons. The study, conducted by Newcastle University, measured HCB in about 45% of CFS patients, compared to 21% in other people without CFS.

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According to the FBI and Labor statistics - twice as many deaths result from corporate contamination or pollution as from violent crime and car accidents combined! One study by the California Department of Public Health in 1995, revealed a 1 in 5 prevalence of chemical sensitivity - this is a high rate of incidence, more than asthma, breast or prostate cancer **and** HIV combined! Ultimately corporate contamination or pollution is genocide. **The Author firmly believes the poison industry is creating the second Holocaust!**

From Newsweek, May 16, 1988, page 76, “Environment “.... Some type of pesticide poisons are applied to lawns, gardens, parks and golf courses each year these compounds can cause nerve or kidney damage, sterility

or cancer in lab animals and workers. But because epidemiological research is so sparse, it's nearly impossible to pin illnesses on lawn products, One closely watched attempt is the case of Navy Lt. George Prior. In 1982, according to his widow, he developed a headache, fever and nausea after golfing at Virginia's Army Navy Country Club, which was reportedly treated with the fungicide Daconil. He was suffering from toxic epidermal necrolysis (TEN), which makes skin fall off in sheets and causes organ failure. Prior died shortly after, and his widow contends that the TEN came from his exposure to chlorothalonil, an ingredient in Daconil. A lawsuit filed by Prior's widow is scheduled for trial this week. A spokesperson for Daconil's former manufacturer said the claim was "without merit."

Few people are as chemically sensitive as Prior. (Currently more than 6% in California.) Yet lately there have been hints that healthy people are also being harmed by volatile pesticides, "An increasing number who thought they had the flu are finding physicians can document a cause and effect relationship [to lawn chemicals]," says New York Assistant Attorney General Martha McCabe, For some the risks are worse, In a controversial study, the National Cancer Institute found that Kansas farmers who apply 2,4-D. a weed killer used in 1,500 over-the-counter products, had a risk of non-Hodgkin's lymphoma, a rare cancer, up to seven times higher than average.

"Inerts" - Now there is also concern over the totally untested, unconsidered and unregistered solvents, impurities, contaminants, decomposition products, dyes and other "inert" ingredients in *registered* pesticide poisons. Of the many unregistered "inerts," the Environmental Protection Agency considers benzene and chloroform to be "inert". Both cause cancer in animals. Unlike active Ingredients, *inerts* do not have to be listed on pesticide poison labels. But EPA has announced that the 60 most hazardous *inerts* must be removed from pesticide poisons or be named on labels. The half life of some of these *inerts* may be over 880 years!

In the 1990s ChemLawn used about 25 volatile, synthetic pesticide poisons. In a 1990s brochure for customers, it stressed that none of its "chemicals" are "known or probable human carcinogens" and are "practically nontoxic." Yet one of its fungicide poisons, mancozeb, breaks down into a compound EPA categorizes as a known human carcinogen. Another, chlorothalonil, causes cancer in animals. ChemLawn says it used these fungicide poisons hardly at all. Cancer, of course, is hardly the only concern. Research data on the neurobehavioral effects of long-term, low-level exposure to lawn pesticide poisons are poor or nonexistent.

Most people aren't aware of these doubts about "registered" poison *safety*. One major reason, according to a 1990s report by the U. S. General Accounting Office, is "false and misleading safety" claims by pesticide poison manufacturers. GAO's undercover team also found that professional applicators made insupportable assertions, such as saying *their* (poisons) products absolutely cannot harm children or pets." The New York suit cites ChemLawn's claim that a child would have to eat almost 10 cups of treated lawn clippings to equal the toxicity of one baby aspirin. In fact, the danger is not that people graze on the poisoned lawn but that they inhale poison fumes or absorb toxic residues through their skin. In addition, even back in 1952 Rachel Carson was concerned about the "government's" and the scientific community's silence about pesticide dangers.

Although most of the furor - and the legal action - is aimed at the \$2 billion lawn care industry, do-it-yourselfers may be more dangerous to themselves and others. They can be exposed to concentrated pesticide poisons - which they mix with water, for instance - and not merely to the dilute versions that are sprayed onto lawns, Also, people *treating* their own lawns are notorious for overdosing, By one estimate, pesticide poisons applied at a rate of two pounds per acre in farmers' fields go on at 10 pounds per acre on lawns. A compound that is relatively "safe" at low levels may not be so benign in the amounts favored by homeowners. Yet noncommercial poison sprayers aren't covered by posting laws, "What's the sense of exempting homeowners but restricting licensed, trained lawn-care professionals who adhere to our association's code of ethics?" asks James Wilkinson of the Professional Lawn Care Association of America. Perhaps the best advice to any pesticide poison user is know what you're using, don't use it if you don't have to and don't regard a perfect lawn as the "sine qua non" of suburban bliss, - Sharon Begley with Mary Hager in Washington [Note: After going to press, Newsweek learned that the fungicide poison, mancozeb, is now classified by the EPA as a "known" human carcinogen. In fact, feeding studies have shown it causes cancer in animals and therefore the EPA classifies the chemical as a "probable" human carcinogen. A spokesman for ChemLawn disputes the EPA's conclusion. Another example of "junk science".

Common pesticide poisons have been shown to weaken human and animal immune systems. Doctors are continually documenting more connections between flu symptoms and exposure to lawn poisons according

to New York Assistant Attorney General, Martha McCabe (1). The lawn pesticide dinoseb has been found to suppress specific Immune system function in test animals (2). 1984 research at the University of Idaho found the very common pesticide poison ingredient, 2,4-D, breaks down to form DCP which has been found to alter white blood cell function in lab animals (3). According to Dr. Leon Olson, toxicologist with the Wisconsin Department of Health, "A properly working immune system is essential for protection against disease, cancer, autoimmunity and certain allergic reactions." The frequency of upper respiratory tract infection was 68.8% higher in a study of 85 pesticide poison workers in Europe. This same study also found they had less efficient movement of their white blood cells (4).

Sources: (1) Newsweek, May 15, pg. 76, 1988
(2) Journal of Pesticide Reform, Summer 1986
(3) University of Idaho, Veterinary Medicine, Jerry H. Exon
(4) Clinical Immunology and Immunopathology, Vol.33, pg. 13, 1984

The human liver hides signs of damage until it is too late...Medical textbooks state the human liver must sustain at least 70% damage before any problems appear in routine blood tests. Therefore, pesticide poisons may be causing gradual damage to the liver for many years before doctors can finally detect it.

Source: Surgical Nursing Manual, Chapter 38 - pg. 803, 1984

Is Anyone Really in Charge? Rachel Carson wrote in *Silent Spring* way back in 1962 that spraying dangerous, volatile, synthetic pesticide poisons often results in far worse pest problems because these toxins upset the population dynamics of the insect world. In the Belgian Congo and Uganda the main pest of the coffee bush was almost completely unaffected by the sprayed poison, while its natural predator was extremely sensitive and created a *catastrophic* situation *there*. Our fire ant *eradication* programs here in the South literally *created* a major pest, e.g., the sugar cane borer; this was because poison spraying killed off all of its natural predators. In Illinois spraying toxins to *eradicate* the Japanese beetle *created* an enormous corn borer infestation. All target pests are or quickly/eventually become immune or resistant to the "registered" pesticide poison, but in spite of this fact the spraying of volatile poisons actually continues to increase. Today there are more fire ants and Japanese beetles than ever before - yet we still continue to spray even more and more volatile poisons to try to *control* them. In Minnesota and across the corn belt, the 1995 corn borer outbreak was the worst since the pest first appeared in the mid-1940's; this in spite of nonstop spraying! Today the Federal Trade Commission and *some* state *regulators* are again demanding that the **maximum** labeled rate of dangerous termiticide be applied in every pretreatment and post treatment for termites! The last time the government *regulators* demanded the same thing - 75% of all U. S. homes built before April, 1988 are **still** contaminated with significant levels of the carcinogenic termiticide, chlordane/heptachlor. **Obviously, some of these regulators will not be happy until they kill us all!**

In Environmental Conservation (1990) it was reported, "Despite heavy use of pesticide poisons, per capita food production is actually decreasing in Latin America." In the March 1996 issue of Farm Chemicals, it noted the U. S. Boll Weevil Eradication Program (BWEP) will continue to spray malathion poison and expand the areas sprayed in spite of the fact many growers became disgruntled after a disastrous cotton crop in 1995. Clifford Smith, a cotton grower and gin operator from Lyford, Texas, believes the malathion sprays that were used to *control* the boll weevils there also killed the beneficials which in other years kept cotton's secondary pests in check. With no beneficial insects left, beet army worms moved in and literally destroyed the cotton crop. "In this area, we harvested just 54,000 bales of cotton compared to almost 308,000 in 1994 from about 370,000 acres. It was a \$150 million loss."

How about the other losses in health, other beneficials and other crops, the cost of the poison, etc., but regardless of the facts/results, BWEP *eradication* efforts will continue despite costly setbacks and poison bans in some regions. The same Farm Chemical issue noted that EPA had begun canceling nine chemicals for agricultural pesticides under the Delaney Clause...legislation was subsequently passed in the Republican House and Republican Senate to *amend* Delaney (so the poison industry can) establish (even greater)) tolerances for (carcinogenic) pesticide poison residues (contamination).

Volatile, "registered," synthetic pesticide poisons have never even controlled, much less *eradicated* any insect pest - or else why do we continue to spray more and more of these dangerous toxins to more and more areas, often with increasing frequency? Especially if we do not know what their combined and/or synergistic health effect on us will be? It is obvious the public and even some growers do not want poisons, especially cancer-causing poisons, in their food or air, but the cancer and poison producers have money which they pour into Washington

so the poison *industry* can continue on with business as usual. Whether the poison works on the target pest or not, whether the poison kills the birds, fish, public, pets, livestock, wildlife and/or beneficials and/or contaminates the entire earth, is not relevant - the victims do not send lobbyists (or bribes) to Washington. **Poisons should not be presumed “innocent” until the surviving victims prove them guilty - especially when “some” of us will have to get sick or get cancer or die in order to demonstrate the necessary evidence that these terrible toxins are and always have been guilty. Volatile poisons are not citizens; they have no “rights”; they should first prove both safety and efficacy before they are used!**

The average home today contains more chemicals than were found in a typical chemistry lab at the turn of the century! The definition “nontoxic” is an advertising word that has no federal regulatory definition. The definition “hyper-allergenic” simply means that poison ivy extracts are not contained in the product!

Black’s Law Dictionary defines “intoxication” as a situation where, by reason of taking intoxicants, an individual does not have the normal use of his physical or mental faculties, thus rendering him incapable of acting in the manner in which an ordinary, prudent and cautious man, in full possession of his faculties, using reasonable care, would act under like conditions. About 6,000 new synthetic chemicals are added to our environment in just the U. S. every year! Today we have 500 - 1000 chemicals in us that were not there in 1920; we have become full of toxins - intoxicated - only apparently we can’t sober up! To add even more toxic, volatile poisons to this cesspool we carry is truly absurd! Especially if they do not even control the target pest! Obviously, we no longer have the normal use of our faculties. It is time to get clean and sober and use some Pestisafes®!

In 1992, Dr. Kenneth Rosenman, M. D. from MSU noted less than 1% of the doctors even report occupational contamination problems and most hospitals do not have a method to track pesticide poison related incidents; even so, there were 50 cases of *accidental* poisonings reported in Michigan. 50% of the cases requiring hospitalization from pesticide poisonings were children under the age of 12! **Remember, Dr. Rosenman estimates less than 1% of all employers and doctors even bother to comply with the current pesticide poisoning reporting requirements.**

NIOSH estimates that over 9 million people in the U. S. are exposed to neurotoxins just in the workplace. In spite of this fact, very few doctors are trained to recognize and diagnose the signs of medical injury. A survey conducted by the U. S. National Research Council’s Institute of Medicine noted that only 66% of our nation’s medical schools required an average of 4 hours in 4 years be devoted to this complex issue - the remaining 34% required no time be spent at all!

The Natural Resources Defense Council (a Washington environmental group) released a report on 5/8/96 that some 64,000 Americans a year die from air pollution even at pollutant levels the Federal Government now considers safe - “We can no longer rely on a “safe threshold” of air pollution” said John D. Spengler of the Harvard School of Public Health, “The health effects are continuous down to quite low levels.”

In December 1997, Consumer Reports magazine conducted the first-ever analysis of organic foods vs. traditional farming using synthetic pesticide poisons. Among their conclusions: one-fourth of all organic foods and 77% of all conventional foods had pesticide poison residues and one sample, green peppers, had residues (beyond federal levels) of a pesticide not even *registered* for use on peppers!

It’s time to stop spraying volatile, “registered” poisons to *protect* our children, pets, yards, crops, homes, schools, hospitals, gardens, livestock, possessions and ourselves. Poisons do not *protect*; they create toxic residues (contamination) that is found everywhere - poisons kill and/or maim. If you allow nature’s beneficials to work, practice proper crop rotation and/or follow the safe, alternative techniques in this book you can avoid using over 98% of all pesticide poison use/misuse, especially the use of any volatile, synthetic pesticide poisons. Always remember that the world survived very nicely for countless millenniums without any volatile, synthetic pesticide poisons which were only recently developed, but we and the world may not survive their short-term and needless assault on us!

Cancer Prevention (Avoidance) Is Truly Possible. Rachel Carson once said, “How strange it was to live in an age where carcinogens are a basic element in our food production,” and I would add, in our health and/or property “protection”. Cancer is actually more than 100 diseases which are created by multiple causes or exposures and/or accidents. Cancer erupts only after the cell’s DNA or genetic material becomes chronologically damaged

or mutated. Cancer normally takes a series of exposures, mutations and/or accidents to produce this dreaded disease. According to the most recent tally noted in Living Downstream, 40 possible carcinogens appear in our drinking water; 60 are released into our ambient air by industry and 66 are routinely sprayed on our food crops as pesticide poisons. Each year, more than 6,000 children personally learn about cancer and other catastrophic illness when they are stricken with deadly diseases.

The Author believes, along with many eminent people in cancer research, malignant diseases can be dramatically reduced or avoided if we identify the environmental causes and simply avoid them or eliminate them or severely reduce their use. We are not seeing all these rising cancer rates because our babies are getting "older" or because we are suddenly inheriting new cancer genes. Volatile, synthetic pesticide poisons are the only toxins we have purposely put in our environment unnecessarily. **Pesticide poisons do not protect, they kill!** The World Health Organization (WHO) collects and analyzes cancer mortality data gleaned from death certificates in 70 different countries. **From this data, WHO concluded at least 80% of all cancer is attributable to environmental influences!**

In 1900 cancer (malignant growths) accounted for only 4% of the U. S. deaths; this figure rose to 15% in 1958 when Rachel Carson expressed concern it might rise even further. Today we know 1 of every 2.5 Americans will get cancer and, I believe, the figure (unless we stop acting like lemmings) will rise to virtually everyone by the year 2050. **Cancer is the number 1 killer disease of children! Is it just a coincidence that 75% of all U. S. homes built before April, 1988 are still contaminated with significant levels of the cancer-causing chemical chlordane?**

An ever increasing exposure to toxic pollution is occurring everywhere smog, industrial waste, auto emissions, volatile pesticide poisons, cigarette smoke, synthetic additives/preservatives, spills and hazardous wastes now are commonly found contaminating our air, water, food, and soil, so much so our natural detoxification process cannot keep up and/or function effectively.

Benzene, a toxin frequently used in the manufacture of carpeting, plastics, and volatile, synthetic pesticide poisons, lodges in our bone marrow for up to 20 months and causes leukemia in the same way as does Strontium 90.

Urethane (a carbamate) is widely used toxin in plastics, clothing, insulation, medicine, insecticide poisons, weed killers and fungicide poisons, is also known to cause cancer.

We know many toxic chemicals in plastics and pesticide poisons, e.g., chlorinated hydrocarbons, create extraordinarily high levels of estrogen-like chemicals called xenoestrogens and may also cause malignancies in the same way as natural (bad types or amounts of) estrogen do. We also know many of the active and the *inert ingredients* of synthetic products, e.g., pesticide poisons are also carcinogenic and we also know that many synthetic pesticide poisons continue to volatilize long after the initial application has dried. Chronic contamination of the ambient air and people occurs for many months or years (depending on the application) with organophosphate poisons and for several generations with chlorinated hydrocarbon poisons!

It should be obvious our exposure to carcinogens is uncontrolled and multiple - any single *safe level* may be enough to create a cancer when combined with just one more single *safe level*. Today we have *500 to 1000* chemicals in us that were not present in people in 1920! It should also be obvious that to continue to add more and more and more dangerous and unnecessary poisons to your environment is insanity - **there are no safe levels of poisons or carcinogens!**

Dr. John Snow used preventative medicine and cured a great cholera outbreak in London over 150 years ago by simply removing the pump handle from the contaminated well on Broad Street. We believe the best way to avoid cancer is to avoid exposures to any volatile, synthetic pesticide poisons in your home, yard, office, school or on your pets or children; wear and use natural products; exercise regularly; eat plenty of organic, well-scrubbed fruit and vegetables, including ("good estrogens") phytoestrogen-rich tofu and other organic soy products sold in stores that do not spray volatile poisons! Why don't you help us prevent you from developing cancer and neurological damages by using our **Pestisafes®** and other safe **Intelligent Pest Management®** techniques found in **The Best Control®** to safely control all of your pests without using any dangerous, volatile and useless, synthetic pesticide poisons?

PTA Pesticide Poison Position Statement - Increasing reports of pesticide poisoning incidents in schools have led the National PTA, based in Chicago, Illinois, to adopt a position statement advocating the elimination of environmental health hazards caused by pesticide poisons used in schools and child care facilities. The position statement, entitled, "The Use of Pesticides in Schools and Child Care Centers", was adopted in 1992 by the National PTA Board of Directors. The entire statement reads as follows: *Americans use hundreds of millions of pounds of pesticides, herbicides (plant killers) and fungicides each year for nonagricultural purposes, including in and around schools and child care centers. Pesticides are, by nature, poisons and exposure - even at low levels - may cause serious adverse health effects. Our nation's children, because of a variety age-related factors, are at increased risk of cancer, neurobehavioral impairment, and other health problems as a result of their exposure to pesticides. The National PTA is particularly concerned about the use of pesticides in and around schools and child care centers because children are there for much of their young lives.*

The National PTA, long an advocate for a healthy environment, supports efforts:

- *At the federal, state and local levels, to eliminate the environmental health hazards caused by pesticide use in and around schools and child care centers. These efforts will result in cost-savings when use of chemical controls is reduced; decreased health risks, and safer school and child care center environments.*
- *To encourage the integrated pest management approach to managing pests and the environment in schools and child care centers. Expansion of integrated pest management policies in schools and child care centers is an excellent long-term solution for control of pests that will significantly lower children's exposure to harmful chemicals by using the least-toxic mix of pest control strategies.*
- *To retain authority for governmental bodies, at the state and local levels, to regulate the use of pesticides in and around school and child care center buildings. This authority is critical to retaining maximum state and local control over an issue so basic to children's health and well-being.*

American Cancer Society Pesticide Poison Warning - The American Cancer Society, Erie County Unit, published a brochure in the 1990s entitled, "**WARNING: The use of pesticides (poisons) may be hazardous to your health!**" which states that:

- "It is a violation of federal law to state that the use of pesticides (poisons) is safe when used as directed."
- "No one can assure your safety when using pesticides (poisons). Most pesticides (poisons) are associated with some risk to human health or the environment."
- "EPA registration (only of the active ingredient) is not a consumer product safety program. It is not intended to determine the safety of the pesticide (poison), but rather to indicate it will kill a targeted pest."
- "A National Cancer Institute study indicated that children are as much as six times more likely to get childhood leukemia when pesticides (poisons) are used in the home and garden."
- "According to a report in the American Journal of Epidemiology, more children with brain tumors and other cancers were found to have had exposure to insecticides (poisons) than children without cancer."
- "95% of the pesticides (poisons) used on residential lawns are considered probable or possible carcinogens by the EPA."
- "Organophosphates, like diazinon and Dursban, and carbamates are designed to act as nerve poisons and may cause headaches, dizziness, fatigue, twitching muscles and mental confusion. Diazinon is banned for use on golf courses and sod farms, but is widely used on lawns and gardens."
- "Pesticides (poisons) can be absorbed through the skin, swallowed or inhaled. During application, pesticides drift and settle on porches, laundry, toys, pools and furniture. People and pets may track pesticide residue into the house."

The American Cancer Society public information brochure further recommends that people implement organic and natural pest control methods, and eliminate the use of toxic insecticides and herbicides.

WHY 99.9 PERCENT IS NOT AND SHOULD NOT BE GOOD ENOUGH - If 99.9% reduction in poison use is compared to other “things” - We would have to accept:

- one hour of unsafe drinking water every month;
- two unsafe plane landings per day at O’Hare;
- 16,000 pieces of mail lost by U. S. Postal Service every hour;
- 20,000 incorrect drug prescriptions every year;
- 500 incorrect surgical operations each week;
- 50 newborn babies dropped at birth every day;
- 22,000 checks deducted from the wrong bank accounts each hour;
- 32,000 missed heartbeats per person per year.

Note: One out of every 2.5 Americans now gets cancer. It is now “expected” that breast cancer will be the No. 1 killer and prostate cancer the No. 2 killer of Americans! On 8/30/96 Anthony Behm, D.O. told me that 1 out of every 3 pregnancies now end in miscarriage! In the 1990s, 1 out of every 7 Americans was already significantly impaired from toxic exposure including volatile, synthetic pesticide poisons, which **are created for only one purpose, to destroy life**. No toxin specifically formulated to kill can honestly be considered *safe* at any detectable level; there are no *safe* poisons, only **toxic** poisons. We have consistently found that the **Pestisafes®** and/or **Intelligent Pest Management®** techniques we have developed to protect our environment, people and pets have resulted in safer, quicker, better, cheaper and more consistent long-term eradication of all pest problems.

The American Lung Association determined in the 1990s Americans spend 90% of their time indoors and during the average life span of 70 years a person will breathe from 500 million to 1 billion times. Obviously, quality of ambient air directly can and will affect a person’s health and vitality. For more than a decade there have been numerous reports documenting the declining test scores, increased sickness, violence and absenteeism, soaring dropout rates and other educational failures in our public schools. Our field tests in schools prove when you remove the use of volatile, synthetic pesticide poisons, proficiency test scores, health and vitality improve.

The National Educational Association has stated some of the liability dangers, learning and health problems caused by the use of volatile, synthetic pesticide poisons, but virtually no school district has really looked into the poor air quality that triggers these and many other negative reactions including mental and physical health and demeanor problems.

Broad spectrum volatile, synthetic pesticide poisons can not and are not created to only kill specific insects, plants, rodents, birds and/or fungi, so to call them insecticides, herbicides, rodenticides, avicides or fungicides is extremely dangerous, misleading and inaccurate. All these dangerous poisons should be more correctly designated biocides because they kill and/or attack all living organisms, including you and the beneficial creatures unfortunate enough to get in the way of these “registered” poisons! They can not distinguish between good or bad - they just kill life. To deny that these toxins are not harming and even killing us is totally illogical and true “junk science”.

In the 1990s, according to the World Health Organization, 33% of all new and recently remodeled buildings have indoor air quality problems. Volatile pesticide poisons and other toxins masquerade as “counterfeit neurotransmitters” and produce false electrical signals in the brain, so the communication processing of the brain is short-circuited leading to cognitive, immune and neurobehavioral deficits.

In the 1990s, at just one Michigan school system where several children had leukemia, they had over 1000 Material Safety Data Sheets (MSDSs) covering the toxins they routinely add to their “learning environment”. **No one knows what the combined and/or synergistic effect of all these toxins will be** but officials from the school system would not even discuss the possibility of stopping their routine use of volatile, synthetic pesticide poisons. At another Michigan school system, one Official stated “that there is no record of **any** student **ever** being harmed from the use or even misuse of pesticide poisons” and he insisted on using only *registered* poisons to *control* his pests! At another school district, the custodian *bragged*, “We will continue to spray volatile pesticide poisons until we are sued - then we will turn the matter over to our insurance company.” So, it is not surprising that many educators and school administrators are *oblivious* to the interrelationship of synthetic poison pollutants

and performance and simply dismiss teacher, staff and student complaints as only flu or cold symptoms, rather than real or actual safety or health hazards that threaten their learning abilities, earning and growth potentials and even their very lives! Some superintendents have told me that they are only concerned with paying teachers' salaries, that notification would keep some kids at home and cost their districts money! **You don't have to be a rocket scientist to realize that putting two safe, unregistered cleaners together, e.g., ammonia and chlorine bleach, can create fumes toxic enough to kill you!**

In the 1990s the General Accounting Office (GAO) consistently found the Environmental Protection Agency (EPA) was not always appropriately responding to all cases of illness caused by pesticide poisons and did not have enough information to decide whether or what steps are necessary to protect public health.

The Author had an Ohio School Custodian confide to him that even into the 90's his Predecessor fogged the school with DDT whenever he saw a fly - no wonder 5 ladies in that same building have had breast cancer and the Predecessor died of throat cancer - yet no one has ever tested the school building for pesticide contamination! The Author also has seen health food stores that sell *organic* food spray their stores weekly with volatile, synthetic pesticide poisons and, thus, contaminate the "organic" food more than *regular* food supplies. All of their spraying is also done without notifying their *organic customers*.

No one really knows all of the terrible toxins being added to the environment to make it better, much less what terrible consequences their use is causing us and will continue to cause us! In spite of the fact older people, pregnant women and children are more vulnerable to pesticide poison exposure, our government continues to assess environmental risk based on the sensitivity of a 160-pound adult male! As Oliver Wendell Holmes noted, "Even a dog knows the difference between being tripped over and being kicked."

Please find and use alternative pest control products and **Pestisafes®** that are not carcinogenic, mutagenic and/or neurotoxins. Often the reduction of "pest" numbers creates additional or more serious pest problems because you have destroyed your allies: the beneficial organisms, predators, parasites or the like. For example, controlling fire ants may increase problems with ticks, fleas and roaches in the yard. Remember, with poison use, less is better; none is best. **There is no better control than common sense and Intelligent Pest Management®!**

"Trying to control carcinogenic substances on a case-by-case basis is like trying to put out a forest fire, one tree at a time." - Secretary of Labor, Ray Marshall.

Still More Pesticide Poison Contamination Problems - In February 1989, first grader Michael Story of Yakima, Washington, came home from Roosevelt Elementary School not feeling well. His vision was blurry, and he began drooling and vomiting uncontrollably. He was suddenly unable to walk. With a scream, "**Mommy, I'm dying,**" he passed out in his Mother's arms. Fortunately, his Pediatrician recognized his symptoms as classic signs of organophosphate pesticide poisoning. Michael was rushed to the intensive care unit of the local hospital where he began a week-long fight for his life. Michael had been exposed on the school grounds to a volatile pesticide poison that nearly killed him. The organophosphate insecticide poison, disulfoton, is one of the most acutely toxic pesticide poisons *registered* by the U. S. Environmental Protection Agency. It had been applied nine days earlier to the maple trees on the schools' campus to "control aphids"!

In another "incident", a first grade Teacher had taught first grade for more than 23 years in the Flint, Michigan area. In 1983 the classroom across the hall was fogged with poison to control an *outbreak* of head lice. The inhaled poison fumes immediately provoked a burning sensation in her eyes, ears, nose, throat and exposed skin. Instinctively, she ushered her children out of the building. She went home very ill that day with a debilitating headache and a tightness in her throat and chest. She felt extremely tired and mentally confused. By evening she had gone into shock, been transported to the local emergency room, and developed chemical pneumonitis. Over the next five years she acquired chemical sensitivities to perfumes, lawn care products, paints, varnishes, her Husband's woodworking shop, newspaper ink, and the disinfectants and floor waxes used at school. When she asked the school administrators for some concessions, she was told, "We can't make changes for just one person."

Eastchester High School, in an affluent New York City suburb, **was closed for almost three weeks in October 1992** following a Sunday night pesticide poison application gone awry. Everyone was sent home after children, teachers and other staff members experienced headaches, eye and respiratory irritation, and nausea during the

first hour of the school day. Numerous students sought treatment from physicians after their poison exposures. The pesticide poisons were applied by Nationwide Exterminating and Deodorizing Company of Dobbs Ferry, New York. They were already under investigation for illegal practices by the New York State Department of Environmental Conservation and had been barred from bidding on federal contracts. The pesticide poisons used were the synthetic pyrethroid resmethrin, and the organophosphates diazinon and chlorpyrifos. To date, the costs of clean-up and environmental testing are estimated at \$400,000. The school employee's union, Civil Service Employees Association, Local 860, has filed a complaint with the State Department of Labor against the School District for failing to protect its members.

A Six-Year-Old at Mitchell Elementary School in Canyon Country, California was suffering from frequent urination, blood in the urine, headaches, coughs, fatigue and anemia. In the course of trying to discover the cause of her Son's symptoms, his Mother discovered that the school was routinely spraying the organophosphate pesticide poison chlorpyrifos. She immediately removed her son from school. The Mother said, "The school had a responsibility to provide our children with the safest possible learning environment. It is so hard to believe that you can be so careful with your children and other people can be so negligent with a toxic chemical. Mitchell School would never give a child an aspirin without written permission from a parent. The nervous systems of children are more vulnerable to the toxic effects of pesticides because they are still developing. How can a school continue to spray volatile, synthetic pesticide poisons without parental notification and permission? Organophosphate poisons were developed in Germany during World War II for use as nerve gases. Carbamate pesticide poisons have the same mode of action as organophosphate poisons and create similar poisoning symptoms. A number of toxicologists now believe that exposure to even low levels of organophosphate poisons can produce alterations in brain activity.

The California, Inland Valley Daily Bulletin Monday, February 9, 1998 headline was Pesticides - Questions of Safety Arise after four Inland Valley Deaths Show Evidence that Spraying (poisons) May Be Linked to Each Tragedy... It started when the former PTA President's 8-year-old son, Matthew, was made ill, along with other Jurupa Hills Elementary School students after exposures to pesticide (poisons) from an automatic classroom dispenser...A four-month Daily Bulletin investigation found evidence suggesting that the deaths since 1992 of south Fontana resident, 15-year-old Chrissy Garavito, 19-year-old Colleen Bright of Fontana, 15-year-old Bloomington resident, Jamie Pettey and 21-year-old Upland resident, Jennifer Denzin are (all) linked to pesticide (poison) spraying... Arrhythmias and other heart irregularities are common complications of exposure to pesticides, putting those with pre-existing heart conditions or who have developed sensitivities to the chemicals (poisons) at risk, said Dr. Arthur Moss, a national Prolonged QT expert, cardiologist and professor at the University of Rochester Medical Center in New York State. "If you watch an insect sprayed with organophosphate (a type of pesticide that had been used at Fontana Schools) they quiver like crazy when they die," said Jack Thrasher, a toxicologist and former anatomy professor at UCLA...Before their deaths Garavito, Bright, Denzxin and Pettey (all) showed signs of what a medical experts recognize as symptoms of pesticide poisoning and environmental illness.

The research of Satoshi Ishikawa, M.D., Chairman of the Department of Ophthalmology at the School of Medicine at Kitasato University in Kanagawa, Japan, has detected some links between exposure to pesticides and myopia in school children. Ishikawa's research has identified the following specific ocular and systemic symptoms related to organophosphate pesticide exposure: reduced visual acuity, narrowing of the peripheral visual field, enlargement of the blind spot, astigmatism, optic neuritis, difficulty with ocular smooth pursuit movement, pupillary abnormalities, reduced serum cholinesterase levels, dizziness, headaches, nausea, vomiting, diarrhea, constipation, excessive perspiration, numbness of the extremities.

According to the EPA, "**No pesticide (poison) can be considered 'safe'...**". All pesticide poisons pose some risk and the possible chronic health risks for many pesticides remain uncertain. Yet schools with their kitchens and cafeterias, athletic fields and playgrounds, classrooms and offices are regularly *treated* with a variety of "registered" pesticide poisons.

In Summer 1996, Dupont lost a Benlate case - this suit was the first to allege that their fungicide causes birth defects, not just crop and plant damage. The Castillos' 5-year-old Son was born without eyes after his Mother was exposed to Benlate fungicide poison during pregnancy.

Of nearly 10 billion bananas which are shipped into the U. S. each year, FDA tests only an average 167 bananas per year. Hundreds of millions of gallons of orange juice are sold yearly - FDA tests only an average of 10

samples. Hundreds of millions of apples are sold in the U. S. yearly of which only 2,464 apple samples are tested. Residues of 48 different compounds (poisons) were found contaminating these few apples with captan (a fungicide) and chlorpyrifos (an insecticide) most frequently. Chlorpyrifos was also the most frequently detected poison in bananas and oranges. This is an inadequate sample statistically and offers little hope of offering any real protection to consumers from illegal residue (contamination) levels!

Porphyric herbicide and insecticide note: Originally, the synthetic pesticide poison industry based most of its poisons on World War I and II nerve gas technology - Now its new generation of poisons are aimed at the destruction of the heme and chlorophyll biosynthesis pathway. These new (1970) porphyric poisons require direct interaction with light and are either photodynamic and/or photo-bleaching compounds that are toxic to all living things. Plants and animals both bioaccumulate large amounts of one or more porphyrins. These toxins photosensitize the formation of a singlet oxygen in light. This singlet oxygen is a very potent oxidant that can trigger a free radical chain reaction that destroys enzymes, nucleic acids, biological membranes and many proteins. The health effects include skin lesions, neurological damages and tissue damage wherever porphyrins accumulate.

These *experimental porphyrias* are called *intoxication porphyria* by the May Medical Laboratory. *Intoxication* means (medically) "being poisoned by a drug or toxic substance." Recent findings indicate that the protoporphyrinogen content in animal livers was underestimated by pesticide researchers because the solvent they used (methanol-sulfuric acid) to extract the porphyrins actually destroyed them. According to two researchers at Dartmouth Medical School (Jacobs and Jacobs), protox inhibitors are preferred for use by pesticide formulators because of their action against both plasma membranes (plastids) and mitochondria, as well as their extremely effective photosensitivity effects.

Final porphyrin notation - While plant cytoplasmic fractions have the capacity to destroy protoporphyrinogen, cytosolic factors in animal (people and pets) cells provide no damage against Protox® herbicide damage. Animals and people are more susceptible to the toxic/porphyrinogenic effects of Protox® herbicides than the average dandelion. Of particular interest is the fact that only 6% of a Protox® herbicide is absorbed by the plant - 94% of the toxic compound remains on the plant's surface to get you, your caddie, pets and/or family! Currently, the EPA (according to Dr. Copley, EPA, Pesticide Registration, Division of Toxicology) has no policy whatever regarding porphyrinogenic substances! Drift: There was a study done in the sixties in Erie, Pennsylvania; it was proven way back then that grapes 10 miles away were adversely affected by herbicides applied in a 3 m.p.h. wind! Do you believe that your neighbors will not be?

Golfing Caution: In 1995 the Ladies Professional Golfers Association noted it recently had four of its members get breast cancer. In 1994, Heather Farr died of breast cancer at 28. She had played golf since childhood and had no other known cancer risk factors. Each golfing acre uses approximately 6 times the amount of pesticide poison than farmers apply on their lands, including the likely cancer-causers 2, 4-D, chlorothalnil and dacthol; unlike migrant workers that have to stay out of *treated* fields for four days and nights golfers can *legally* walk through the poison spray!

Startling statistical results were revealed on February 6, 1994 at the Golf Course Superintendents' Association of America's (GCSAA) annual conference held in Dallas, Texas. Golf course superintendents have a higher rate of mortality from lung cancer than the general population, as well higher than average rates of mortality from brain cancer, non-Hodgkin's lymphoma, cancer of the large intestine and prostate cancer. The death certificates of 618 former GCSAA members who died between 1970 and 1992 were gathered for the study. Of the 618 deaths studied, 179 were related to cancer. Smoking-related deaths only account for 39% of these deaths. However, non-Hodgkin's lymphoma and brain cancer, both of which are normally uncommon cancers and have been associated with pesticide poison exposure, occurred at above average levels among the deceased superintendents as well. Approximately 18 pounds of pesticide poison per golf course acre are applied annually! Mostly to the greens to control/prevent cutworms that are better controlled by proper mowing techniques.

PESTICIDE CONTROL SERVICES CAUTION. In 1995, Dow Elanco announced it is discontinuing the production of Dursban® LO insecticide and removing its indoor, broadcast use patterns for Empire® 20 insecticide. Apparently Dow Elanco is exiting the flea control business, but Janice Smith, Dow Elanco Product Marketing Manager for Technical Insecticides answered, "No. Odor after application and knockdown of fleas continues to be increasingly important to both professionals and consumers. Though the odor is not harmful to the applicator or resident,

it can be annoying and raise unnecessary concerns with residents, “ says Smith. “Dow Elanco has conducted extensive studies to support the safe and effective use of Dursban insecticides applied as a broadcast treatment in the home. However, Dow Elanco recognizes most odor concerns are associated with indoor broadcast applications.” (It has been my observation that the only reason anyone removes any use from their product (poison) label is because such use was causing terrible problems, e.g., chlordane’s label became more and more restrictive before it was banned.) The Center for Disease Control has estimated that Dursban contamination is now so pervasive that 82% of the entire U. S. population has a positive chlorpyrifos (poison) reading in their urine! As of this writing Dursban (chlorpyrifos) was being highly restricted or was being “voluntarily withdrawn.” See <http://www.epa.gov/fedrgstr/EPA-PEST/2002/January/Day-25/p1764.htm>

In a 1994 article that appears in Vol. 13 No. 3 - of Whitmire’s Pest Management Quarterly, William W. Broome, Jr. wrote Pest Control Services - Easy to Sell. **Even though the pest control industry only uses insecticide poisons that have never controlled much less eradicated insect pests** - Mr. Broome directed the poison applicators not to be “too technical” and to “dramatize your presentations with photographs of insect damage or, for example, show a list of the diseases that German cockroaches carry. Don’t leave your customer with the impression that your control program consists only of the application of insecticides. Emphasize the role of the skillful technician rather than the chemicals you use. Generally you are dealing with a public that is rather smart but unfortunately, they have received misinformation about insecticides. For example, the term “synthetic pyrethroid” sounds just as bad and maybe worse than D.D.T. or chlordane. Don’t get into a defensive battle about insecticides. Tell them how you have been specially trained to make insecticide applications which take advantage of an insect’s biological weakness. Convince them, by your actions and statements (using language they can understand), that you are also concerned about their health and safety and that you know what you are doing. Tell them that they can rest assured that they are safe in your hands.” This in spite of the federal law that it is illegal to state pesticide poisons are “safe”, even when used according to the label. So BE CAREFUL and ask for the MSDS (Material Safety Data Sheets) and ask some real technical questions, especially concerning the poison applicator’s use of alternative controls. **Do not be easily sold a bill of goods, especially that poisons are “safe”! Or that you are “safe” in traditional pest control people’s hands!**

A “rose” by any other “name” is still a....The National Agricultural Chemicals Association - the nation’s leading trade association for synthetic pesticide poison makers and sellers - has changed its name to the American Crop Protection Association (ACPA). Poisons do not “protect” - they kill! The “Professional Pesticide Users of Connecticut” have changed their name to the “Environmental Industry Council” so they can “sell ‘em green if they want it”. E. Bruce Horrison, who at the age of 30 led the poison *industry’s* fight to discredit Rachel Carson’s 1962 book Silent Spring, has now written his own book Going Green. His PR Company lists clients such as Dow Chemical, Monsanto, R. J. Reynolds, etc. In his book he declares environmental activism had “died” and teaches “greenwashing” and suggests hiring a detective to investigate the activists, making sure, of course, not to get caught. Virtually all of the poison people are now calling themselves “IPM experts, green, protectors or guardians of the environment, environmentalists, etc.” - so be very careful when you talk to the contaminators of the earth - who will with a straight face try to convince you that poisons in their hands are *safe* and/or will *protect* you and yours!

Two recent consumer surveys conducted by the Environmental Assessment Association show that people are getting sick from pesticide poisons and banks, mortgage companies and real estate people don’t seem to care (and continue to use the poison “industry”)...48% of all homeowners surveyed believed that environmental problems in and around their homes were at least partially to blame for some of the illnesses in their immediate families. Synthetic pesticide poisons cannot be seen once applied, but invisibly continue to contaminate the ambient air, etc. for extended periods of time. The National Cancer Institute (Agriculture Risk Factors for Leukemia, Cancer Research, 50, 6585-91, 10/15/90) noted a 1-1/2 times elevated leukemia risk in Minnesota and Iowa farmers who used organophosphate poisons on farm animals. The risks rose to twofold for halogenated and non-halogenated aromatic organophosphate poisons, e.g., parathion and chlorpyrifos (Dursban). Ronald A. Hiles, a chemist and professor at Indiana University conducted an analysis of tree bark that shows fungicide and insecticide poisons have spread all over our earth, often thousands of miles from where they were originally used, and some of the poisons sprayed decades ago are still contaminating and affecting our environment. Tree bark gathered from 90 sites, from the tropics to the chilled latitudes bears chemical traces related to DDT, lindane, chlordane, aldrin and to 18 other pesticide or fungicide poisons. So when your poison sprayer tells you *his* poison stays where he puts it - **Do not believe it or him!**

The poison *industry* put the **sin** in their profitable business. **The precautionary principle** which dictates that public and private interests should act to prevent harm before it occurs and **the principle of reverse onus** - or the edict that safety, rather than harm, should require and/or necessitate demonstration and present all of the required proof of safety before a product or technique is used - are both totally ignored by the poison *industry*.

Just a few more examples of volatile, synthetic pesticide poison use cautions - Dow Elanco handed over hundreds of lawsuits (with plaintiff names deleted) from its files to EPA in November 1994, 215 claims from 1984-94 related to chlorpyrifos (Dursban) which it manufactures. The claims dealt with delayed neurotoxicity, cholinergic symptoms, multiple chemical sensitivity, respiratory, reproductive, oncogenic (tumor-causing) and dermal effects, as well as anemia and liver problems. "The onset of the first symptoms, including muscle problems, was three weeks after exposure" in a West Virginia child who ultimately became paralyzed and wheelchair dependent. Extensive neurological and neuropsychiatric tests were performed on 90 controls and 128 men poisoned by organophosphate pesticides between 1982 and 1990. The exposed subjects did significantly worse on many tests including those of sustained visual attention, mood and vibrotactile sensitivity of fingers and toes. Many of the exposed subjects were Spanish speaking farm workers who had little access to either health care or pesticide-hazard information or protection. Whitmire's PT 265A Knox Out (diazinon) was voluntarily recalled after finding that the aerosols were contaminated with microencapsulated methyl parathion!

A Dutch cross-sectional study noted a decrease in peripheral and autonomic nerve functions in 131 flower-bulb farmers, as opposed to 67 matched controls. The bulb growers were exposed to the fungicides zineb and maneb over 20 years. The researchers determined that the "effect of average exposure would equal that of approximately 10 - 20 years of aging." The autonomic nervous system innervates the blood vessels, heart, smooth muscles, viscera and glands and controls their involuntary functions. The peripheral nervous system received sensory signals and controls muscles in the limbs, as opposed to the central nervous system which comprises the brain and spinal cord. These pesticide poisons slowed the speed by which nerve impulses were transmitted by peripheral nerves, possibly by damaging the myelin sheath which encases nerves.

In 1993 an estimated 25 million cans of poison foggers were sold in retail outlets. Many consumers use these devices to kill roaches, fleas or ants more cheaply than hiring an exterminator. Fire officials in New York City are aware of at least 40 cases in which foggers caused serious fires. EPA suspects that many such incidents go unreported or are not recognized as such by fire investigators.

The Danish EPA found that herbicide poisons actually create better conditions for some plant diseases and pests. The investigation, which looked at the weed killer isoproturon and the growth regulator etephon, concluded that isoproturon seemed particularly popular with mildew in winter wheats; the greater the dosage of the herbicide, the worse the plant disease became, with even the minimal dosage contributing visibly to the severity of the mildew. Both poison compounds proved to have a profound effect on the reproductive capacity of the beneficial greenfly, particularly in barley fields.

A study in the 1990s found that the risk of childhood brain cancer increased more than 5-fold in families that used no-pest-strips, pesticide poison bombs or flea collars in or around the home. Childhood brain cancer was also significantly more common in families that used pesticides to control garden insects, head lice, termites and yard weeds. Childhood cancer has risen 10.8% in the past decade. Among children beyond the newborn age group, cancer is second only to trauma as a cause of death. Among children ages 1 - 14, cancer causes more deaths in the U. S. than any other disease. An estimated 80% - 90% of all cancer in humans is caused by exposure to carcinogens found in the environment. Pesticide poison use is especially dangerous for children and infants. Approximately half of the reported 4,178 pesticide exposure-related calls to one California poison control center in 1991-1992 involved children aged five or younger. Most people are uninformed about the risks posed by pesticide poisons, and use and store them in ways that pose hazards to themselves and their children. EPA survey data indicate that 85% of U. S. households have at least one pesticide poison stored in the home at any one time; 20% have more than five. Multiple Chemical Sensitivity (MCS) is now recognized by four governmental agencies (H.U.D., Social Security Administration and the Education and Justice Departments. Marcy Trice, a psychologist intern, had her career destroyed as she worked in a Detroit, Michigan Hospital because they sprayed pesticide poisons without allowing her to leave. The Bay State Nurse reported that approximately 70 nurses from the 751 bed Brigham and Women's Hospital (BWH) in Boston are out of work on industrial accident leave with exposures to toxic chemicals in their *safe* workplace. BWH nurses, physicians and other employees have experienced a wide variety of signs and symptoms including rashes, urticaria, shortness of breath, laryngeal edema, sinus

problems, asthma, paresthesias, headaches, cardiac arrhythmias, conjunctivitis and dizziness. I personally know of hundreds of poison victims and work with several excellent lawyers who represent the chemically injured and destroyed. In spite of the dangers EPA is now distributing "IPM" literature in open cooperation with the volatile, synthetic pesticide poison manufacturers and *professional* poison applicators that states, "There are, of course, many pest problems that require the use of pesticides (poisons)." As you read and use this manual, you will see *they* are not only wrong - but they are killing the earth and its inhabitants needlessly.

More on the Health Problems/Risks of Registered, Volatile, Synthetic Pesticide Poisons - People especially sensitive to pesticide poison exposure, including children and hospital patients, are not being adequately protected at federal facilities. The nine facilities with on-site day care facilities all earned failing grades because they continue to rely on hazardous pesticides, as did all six Veterans' Medical Centers included in the study. A 1990s study by the U. S. Environmental Protection Agency (US EPA) found that 9 out of 10 households use pesticide poisons, and that during a two-year period (1976-1977) over 250,000 Americans became ill or were injured by home pesticide poison use. In addition, approximately one and a half million families in the United States experienced at least one economic loss each year as a result of household pesticide use. Birth defects have increased over the last seven years, according to a recent study by the Birth Defect Monitoring Program (BDMP), run by the Center for Disease Control. The study concluded that 29 of 38 types of birth defects have increased. According to the Environmental Research Foundation, "there is abundant scientific evidence that birth defects" have occurred as a result of exposures to radiation, pesticide poisons, heavy metals and other contaminants. A recent study of couples seeking artificial insemination in Austria has shown that long-term exposure to pesticides may affect sperm quality. Researchers found that there was a statistically significant number of agricultural workers in the group seeking artificial insemination as opposed to the control group. The medical histories showed no indications that diseases, long-term medication use or cigarette smoking were related to their infertility. On October 21, 1993, The Health Environment Subcommittee of the U. S. House of Representatives Energy and Commerce Committee heard testimony from physicians and scientists suggesting that estrogenic agents, including some pesticide poisons, may be contributing to the rise in the frequency of breast cancer. World demand just for the active ingredients used in volatile, *registered, synthetic pesticide poisons, e.g., insecticides, herbicides, etc., will increase 4.4% annually to a value of more than \$34 billion in 1998. The only business that grows yearly is the pesticide "industry" because each year it takes more and more poison just to try to "control" the pest species.*

Some of the *Registered, Volatile, Synthetic Pesticide Poisons Reported in the 1990s to Have Reproductive and Endocrine-Disrupting Effects:*

Table 5-1 Reproductive and Endocrine Disrupting Pesticides¹			
<u>Herbicides</u>	<u>Fungicides</u>	<u>Insecticides</u>	<u>Nemticides</u>
2, 4-D	Benomyl	B-HCH	Aldicarb
2, 4 5-T	HCB	Carbaryl	DBCP
Alachlor	Mancozeb	Chlordane	
Amitrole	Maneb	Dicofol	
Atrazine	Metiram-complex	Dieldrin	
Metribuzin	Tributyltin	DDT & Metabolites	
Nitrofen	Vinclozin	Endosulfan	
Trifluralin	Zineb	Lindane (8-HCH)	
	Ziram	Malathion	
		Methomyl	
		Methoxychlor	
		Mirex	
		Oxychlordane	
		Parathion	
		Synthetic pyrethroids	
		Toxaphene	
		Transnonachlor	

More information on the health effects of pesticide poisons is available from:

Beyond Pesticides, National Coalition Against the Misuse of Pesticides (NCAMP), 1-202-543-5450, web site: <http://www.beyondpesticides.org/>

National Pesticides Information Center, 1-800-858-7378, web site: <http://npic.orst.edu/>

Northwest Coalition for Alternatives to Pesticides (NCAP), 1-541-344-5044 (Independent Non-government Fact Sheets), web site: <http://www.pesticide.org/get-the-facts/pesticide-factsheets>

Extension Toxicology Network (Exttoxnet) - 1-607-255-7660 (Fact sheets on some pesticides), web site: <http://ace.orst.edu/info/exttoxnet>

National Library of Medicine, 1-800-638-8480 (On line computer access TOXNET), web site: <http://toxnet.nlm.nih.gov/>

EPA Office of Pesticide Programs, Public Response Program Resources Branch, 1-703-305-5805; fax: 1-703-305-5884 (Fact sheets that include information on data gaps.), web site: <http://www.epa.gov/pesticides/factsheets>

Political Action Committees (PACs) formed by the Nation's pesticide poison makers contributed more than \$3.1 million to Congressional candidates in 1993-94, according to an October, 1994 study by the Washington, D.C.-based Environmental Working Group. Most of the pesticide (poison) cash went to members of Congress who have co-sponsored industry-supported legislation to weaken federal pesticide (poison) laws.

The Occupational Health and Safety letter, 1/19/98, noted: The AFL-CIO is fresh from a victory involving workers' compensation in Ohio. A citizen initiative in November overturned a Republic effort to change the law. "However... we believe the attacks against workers will continue and even escalate during the 1998 election cycle. Why? Because Republican lawmakers have found it extremely profitable to attack basic protections for hard working Americans in order to shift costs on to workers as corporations pour more and more money into their campaign coffers," said the Union in a 1/6/98 statement.

The Waning Days of Risk Assessment

Risk assessment is a decision-making technique that first came into use during the presidency of Jimmy Carter, who was trained as a nuclear engineer. At its best, risk assessment is (was) an honest attempt to find a rational basis for decisions, by analyzing the available scientific evidence. In theory it is still an attractive ideal -- to make rational decisions based on scientific evidence -- because in principle it should allow diverse parties to agree on what needs to be done. However, 20 years of actual practice have badly tarnished the ideal of risk assessment and have sullied the reputation of many a risk assessor.

History of Risk "Assessment" (or why we allow one death in every million for 'Better Living through Chemistry.')

During the late 1960s it slowly became clear that many modern technologies had far surpassed human understanding, giving rise to byproducts that were dangerous, long-lived, and completely unanticipated. A book-length report issued by the White House in 1965 began with a letter signed by President Lyndon Johnson, who said, "Ours is a nation of affluence. But the technology that has permitted our affluence spews out vast quantities of wastes and spent products that pollute our air, poison our waters, and even impair our ability to feed ourselves." The 1965 White House report identified numerous major sources of environmental contamination: municipal and industrial sewage, animal wastes, municipal solid wastes, mining wastes, and "unintentional releases," which included automobile exhausts, smoke stack emissions, pesticidal mists, and agricultural chemicals draining into waterways, among others. The main report contained "subpanel reports" on soil contamination, the potential for global warming by carbon dioxide, the effects of chlorinating wastes, the health effects of environmental pollution, and "the effects of pollutants on organisms other than man."

In 1969, the U.S. Secretary of Health, Education and Welfare issued another book-length report on "Pesticides and Their Relationship to Environmental Health." The report said, "Recent evidence indicates our need to be concerned about the unintentional effects of pesticides on various life forms within the environment and on human health. It is becoming increasingly apparent that the benefits of using pesticides must be considered in the context of the present and potential risks of pesticide usage. Sound judgments must be made."

Therefore by the mid-1970s it was obvious even to journalists and politicians that industrial technology had a massive dark side. Technical mastery of natural forces was leading not to safety and well being but to a careless and accelerating dispersal of dangerous poisons into the biosphere with consequences impossible to predict. During the 1970s, in response to a decade of disturbing reports and revelations, a vast "environmental movement" developed, made up of citizens concerned about one place or another -- their dinner table, the playground in their neighborhood, the river running through their town (often the source of their drinking water). They demanded reforms. Congress reacted by writing laws the size of a telephone book and by creating new agencies and departments to issue enforceable regulations.

As all the early official reports make clear, in those days environmental contamination was viewed through the twin lenses of engineering and traditional toxicology. Traditional toxicology maintains that "the dose makes the poison" -- meaning that everything is poisonous at a high enough dose, and you can prevent poisoning by giving a low enough dose. The engineer seeks to develop a numerical formula that will give the desired result time after time.

Blended together, these views gave rise to the idea that the nation merely needed to set numerical "standards" for the discharge of industrial poisons into the environment. The world's capacity to absorb toxicants would be discovered by scientific analysis, toxicologists would determine the safe dose, and engineers would fine tune the nation's industrial apparatus to deliver just that dose and no more. At least that was the theory.

Unfortunately, there was one key element missing from this prescription: pollution pays handsomely. In the short run, corporations that dump their toxic wastes into a river, or bury them in the ground, make much more money than corporations that sequester and detoxify their wastes at great expense. Therefore, a political struggle of enormous proportions ensued. On one side, the petrochemical giants (such as Dow, DuPont, and Monsanto) were by then producing an array of profitable new products -- polymers, plastics, pesticides. On the other side, an alarmed citizenry demanded safety. This got translated into "safe doses."

In response to the new laws and regulations, governments at all levels geared up to make “sound judgments” inside this political pressure cooker. Under these circumstances, “risk assessment” seemed like a way to rationalize government decision-making, instead of allowing bureaucrats to make arbitrary choices: gather the necessary data, ask a group of impartial experts to interpret it, and render a sound judgment. What could be more reasonable?

Unfortunately, it did not work out. In the first place, as we shall see, the necessary data are not available, even today. In the second place, the traditional toxicological assumptions did not hold up under scrutiny. For many poisons, there is no “safe” dose. And finally, impartial experts are almost never impartial. Someone is paying their hefty fee and that someone often gets the benefit of the doubt when it comes time to interpret whatever data is available. “Experts” and “scientists” can easily be bought, it turns out.

In 1995, after risk assessment had been refined for 20 years, three well-known and well-respected risk assessors working for the California Department of Environmental Protection -- Anna Fan, Robert Howd, and Brian Davis -- published a detailed summary of the status of risk assessment. In it, they pointed out:

** There is no agreement on which tests to use to determine whether someone's immune system has been damaged;

** There is no agreement on which tests should be used to assess damage to the nervous system;

**** There is no agreement -- and there may never be -- on ways to test for genetic damage.**

Without agreement on test methods, people cannot agree on which data to include in a risk assessment. Under these circumstances, different risk assessors will select the data that they believe is relevant and they will usually reach different conclusions -- often VASTLY different conclusions.

Furthermore Fan, Howd and Davis point out that:

** Genetic damage is a non-threshold event. That is, any amount of a gene-damaging substance can cause damage. Only zero is safe. If such damage occurs in a germ cell, it may be inherited by successive generations.

** Damage to the reproductive system is a non-threshold event. Any exposure to a reproductive toxin may cause damage. Furthermore, a single exposure may have lifelong effects. The only safe dose is zero.

** Likewise, damage to the developmental system is a non-threshold event. A single exposure by an effective toxin may cause damage and such an exposure may have lifelong effects. Only zero is safe.

** Cancer is a non-threshold event. Any exposure to certain carcinogens may initiate a sequence that results in cancer. The only safe exposure is zero.

There are other problems with risk assessments:

** Science has no way to analyze the effects of multiple exposures, and almost all modern humans are routinely subjected to multiple exposures: pesticides; automobile exhaust; dioxins in meat, fish and dairy products; prescription drugs; tobacco smoke; food additives; ultraviolet sunlight passing through the earth's damaged ozone shield; and so on. Determining the cumulative effect of these insults is a scientific impossibility, so most risk assessors simply exclude these inconvenient realities. But their resulting risk assessment is, obviously, bogus.

** According to the U.S. National Academy of Sciences (NAS), which in 1983 published the official formula for conducting a risk assessment, risk assessments are supposed to take into account the special characteristics of the population at risk: Are they obese? Is their diet adequate? Do they suffer from chronic disorders like asthma, diabetes, or arthritis? Are they very young or very old? Are they pregnant? Do they eat unusual quantities of contaminated foods, such as cheese or fish? Most risk assessors simply ignore this NAS requirement for examining the characteristics of a population.

** Risk assessment, it is now clear, promises what it cannot deliver, and so is misleading at best and fraudulent at worst. It pretends to provide a rational assessment of “risk” or “safety” but it can do no such thing because the required data are simply not available, nor are standardized methods of interpretation. Science, as a way of knowing, has strict limits and risk assessment encompasses a set of problems too complex for science to solve. As Fan, Howd and Davis acknowledge, risk assessment is not a science, it is an art, combining data gathered by scientific methods with a large dose of judgment. Judgment is not reproducible from laboratory to laboratory so different risk assessors reach different conclusions, often based on who’s paying.

** Risk assessment is inherently an undemocratic process because most people cannot understand the data, the calculations, or the basis for the risk assessor’s judgment (and innocent people are killed by “registered” poison exposures they can not control.).

Now after 20 years, the public is catching on, that risk assessment has been a failure and in many cases a scam. Rather than allowing citizens to reach agreement on what’s best, it has provided a patina of “scientific objectivity” that powerful corporations have used to justify continued contamination of the environment. With a few rare exceptions (sulfur dioxide emissions, for example) dangerous discharges have increased geometrically during the period when risk assessment has been the dominant mode of decision-making. It is now obvious to most people that risk assessment is a key part of the problem, not an important part of any solution.

In place of risk assessment, a new paradigm is ripening: the principle of precautionary action. The precautionary principle acknowledges that we are ignorant about many important aspects of the environment and human health. It acknowledges scientific uncertainty and guides our actions in response to it. The precautionary principle says,

“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity (or poison), rather than the public, should bear the burden of proof.

“The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action.” (Yet “our” government could not or would not even define the word “alternative” in September of 2001!)

The basic idea? Make decisions based on familiar maxims: An ounce of prevention is worth a pound of cure. Look before you leap. Better safe than sorry. Do unto others as you would have others do unto you.

This is not rocket science. Definitely not rocket science. --Peter Montague (National Writers Union, UAW Local 1981/AFL-CIO)

“NEUROTOXINS: AT HOME AND THE WORKPLACE: Way back in June 1986 the above report was made to the Committee on Science and Technology, U. S. House of Representatives, Ninety-Ninth congress. In the Introduction it was clearly noted: “Millions of people are exposed everyday to neurotoxic industrial chemicals, including solvents, pesticides, drugs, food additives and cosmetics. People who have experienced acute exposure to neurotoxins show the readily recognizable symptoms of dizziness, nausea, muscle weakness and blurred vision. But, symptoms of chronic exposure—such as increased irritability, loss of memory, inability to concentrate and sexual dysfunction—may go unnoticed, or be ascribed to social pressures rather than neurological damage. There is increasing concern that basic research directed towards predicting, detecting and understanding neurotoxicity is being neglected by government, industry and academic researchers.”

The Author firmly believes that the poison “industry’s” current idea of “sound science” is a blatant disregard for human health and the environment in order to maximize corporate profit.

Conclusion

Volatile, “registered,” synthetic pesticide poisons are made to be toxic poisons; they are made to kill and/or destroy life. Many are known to cause cancer, chronic health problems and other terrible (and needless) adverse health effects in humans and animals. The health effects of many of these poisons are unknown. Scientists can not determine exactly what will happen to a particular pesticide/poison once it enters the environment. Nationally, 325,000 certified commercial applicators are involved in non-agricultural use of pesticide poisons; in addition,

many non-certified applicators also routinely add poisons to the toxic “brew”. That is why volatile pesticide poisons have been “regulated and registered”.

The real reason to avoid all use of volatile synthetic pesticide poisons and use only **The Best Control’s** Intelligent Pest Management® or control techniques found in this manual is for your health; as Rachel’s Environment and Health Weekly #469, 11/23/95 of the Environmental Research Foundation, P. O. Box 5036, Annapolis, MD. noted: About 85% of American homes maintain an average inventory of 3 to 4 pesticide products, including pest strips, bait boxes, bug bombs, flea collars, pesticidal pet shampoos, aerosols, granules, liquids and dusts. As of 1994, nine tons per day of domestically banned pesticide poisons left U. S. shores for our foreign friends!

In the 1990s, roughly 70 million households made more than 4 billion volatile, synthetic pesticide poison applications per year. According to the National Home and Garden Pesticide Use Survey by EPA, 37% of all U. S. households treat for insects even when there is not a major pest problem. Another report noted that in 1993, annual U. S. pesticide poison user total expenditures were 18.5 billion dollars and expenditures on just insecticide poisons for U. S. homes and gardens totaled \$87.5 million dollars for 32 million pounds of poison - which is only 13% of the total U. S. insecticide poison use by volume. The Environmental Defense Fund noted 3/3/98 that today man-made pollution threatens oceans once thought inviolable, and 13 of the world’s 17 major fishing grounds are fished out or in serious decline. **It is now estimated that at least 50,000 to 100,000 species of plants, mammals and insects will become extinct every year!**

A 1994 study of “registered” pesticide poison labels published in the Journal of the American Optometric Association found that it requires an 11th-grade cognitive reading level to understand a pesticide label, which means that 40% to 50% of the general population cannot read and understand the directions on a pesticide product label, even if all members of the public had the necessary 20/30 visual acuity to read the fine print. It is interesting that prescription medicine dosage instructions are followed incorrectly by 30% to 50% of patients according to the National Council on Patient Information and Education and they are written at the 9th-grade level. Nationwide in 1993, of 140,000 pesticide exposures, 93% involved home use. Over half of all reported contamination exposures involved children under age 6. According to toxicologist William Pease of the University of California-Berkeley School of Public Health in the 1990s, exposures from household use exceed (but, of course, are added to) those from pesticide residues in food.

There were then over 21,000 different *registered* household pesticide poison products containing over 860 active *registered* ingredients and up to 1700 unregistered *inert* ingredients. “Registered” household pesticides may contain more than 99% *inert* ingredients. Active ingredients are the only ingredients that are listed on the product label and the only ones that are “regulated” by law. *Inert* ingredients are not listed on the label are not regulated, nor considered in the “risk assessment”! No one honestly can tell you what the synergistic effect of even one *combined* ,“registered” pesticide formulation is, because they only *test* and/or only consider the active ingredient.

Section 2m of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) - the Nation’s pesticide control law - states, “The term ‘inert ingredient’ means an ingredient which is not active.” In actual practice, pesticide (poison) manufacturers decide what to call *inert* and what to designate as an active ingredient that is subject to EPA regulation. **This is what power, money, corruption and “sound science” can do.**

In 1991, the Inspector General of the EPA issued a report on *inerts* in *registered* household pesticides [US EPA Office of Inspector General, *Inert Ingredients of Pesticides* (audit report no. E1EPF1-05-0117-1100368, September 27, 1991)]. The report identified 4 categories of unregistered *inerts*:

1. 300 *inerts* are “generally recognized as safe.” This category includes dextrose, ethanol, fish meal, lard, olive oil, water and wintergreen oil.
2. 68 *inerts* are “potentially toxic.” Examples include petroleum hydrocarbons, toluene, xylene and methyl bromide. (It is interesting that NIOSH considers methyl bromide a carcinogen at any exposure level.)
3. 56 *inerts* are “toxic.” These ingredients yield evidence of carcinogenicity, adverse reproductive effects, neurotoxicity, or other chronic effects, or birth defects in laboratory animals or humans. Examples: aniline, asbestos, benzene, carbon disulfide, chloroform, formaldehyde, hexachlorophene, lead, cadmium and mercury oleate.

4. 1300 *inerts* have “unknown toxicity.” “EPA knows little or nothing about the adverse effects of most of these inert ingredients. Examples include barium sulfate, epoxy resins, styrene acrylic copolymer, sodium nitrate, thymol, lithium chloride, naphthalene, polyethylene terphthalate, D & C Red #37, malathion, kerosene, coal tar, asphalt, Freon 114 and sulfuric acid.

Gathering information about the health effects of these unregistered *inerts* presently **still** has low priority at EPA, receiving less than 1% of the Office of Pesticide Program’s budget. Furthermore, EPA has no specific procedures or time frames for ensuring that any of these *inerts* are ever reviewed. “Until these reviews are completed, users are unaware of potentially toxic *inert* ingredients contained in certain *registered* pesticide formulations. The use of these pesticide products may be jeopardizing human health and the environment,” the EPA Office of Inspector General states. Although *inert* ingredient are secret by law, it is widely believed that pesticide poison companies know their competitors’ “inert” ingredients; since the invention of the mass spectrometer, anybody who wants to know can easily find out.”

John Bucher, acting chief of the toxicology branch of the National Institute of Environmental Health Sciences, was quoted as saying, “We have spent an enormous amount of the time in pesticide (poison) cancer assessments. [But] we could be missing the boat on the potential effects on the immune system.” He goes on to note that subtle effects on the nervous system are almost never studied. “We almost never see anything on learning, memory and potential psychological effects of (poison) exposures,” says Bucher. “You can’t ask a test animal for the kind of information that you can ask people. So you can’t adequately study some of these things with animal models.”

The most sensitive creatures are human fetuses and infants, according to Dr. Sheila Zahm of the National Cancer Institute. She recommends that pregnant women should avoid exposure to any “registered” pesticide poisons. The rapidly-growing fetus may be particularly susceptible to mutagenesis [genetic damage], chromosomal aberrations, and carcinogenesis, Zahm says. She points out that infants crawling on carpets may be exposed to more lawn chemicals tracked indoors, and that such chemicals may endure much longer indoors than they would outdoors exposed to rain and sunlight. Humans are at the top of the food chain. They bioaccumulate the pesticides/poisons that are accumulated by the plants and lower animals that they eat.

Philip Landrigan, a pediatrician and leading health researcher, has noted, “The possible contribution to recent cancer trends of the substantial worldwide increases in chemical production that have occurred since World War II (and the resulting increases in human exposure to toxic chemicals in the environment) has not been adequately assessed. It needs to be systematically evaluated.”

Penny Fenner-Crisp from EPA’s Office of Pesticide Programs noted Our Stolen Future draws attention to an environmental issue of great concern...”The growing evidence that a number of synthetic and naturally-occurring organic chemicals may disrupt the normal functioning of endocrine systems of wildlife and humans.” Much of the attention has focused on chemicals that affect female and male sex hormones, as certain human cancers that are influenced by hormones, e.g., those of the breast, prostate and testis are on the rise and sperm counts are decreasing. In addition they may be causing mental and/or behavioral problems in children whose mothers are exposed to them. William Pease from Berkeley asks whether some pesticides are worth the hazards.... when we know there are alternatives. Federal pesticide poison authorities have far to go before they have fully evaluated the health effects of pesticide poison products currently on the market, and to which millions of American families, including children, are needlessly exposed routinely and repeatedly to volatile, pesticide poisons each year. Yet our “regulators” consistently fine anyone that uses or sells anything as an alternative, calling any alternative that mitigates pests in anyway an “unregistered pesticide.”

EPA knows little or nothing about the toxic characteristics and most of the *inerts* that make up the bulk of most household pesticide poisons. Furthermore, government officers are prohibited - under penalty of prison sentence - from revealing to the public what dangers they do know about *inert* ingredients. Meanwhile, the enforced secrecy about *inerts* does not prevent a pesticide producer’s competitors from learning which *inerts* are being used. Only the public and the medical community are prohibited from learning this information. Pesticide poisons can affect the immune system, the central nervous system, and other bodily systems as well, such as the endocrine (hormone) system and the genes. Damage to the DNA and genes may be inherited by the next generation, and then passed on to subsequent generations. The number of diagnosed asthma patients and Ritalin users is skyrocketing, yet no one asks, “Why?” These important non-cancer effects of pesticide poisons have hardly

been studied by government health authorities.

A study of indoor air quality (an oxymoron) by EPA in 1990 detected 26 pesticides. In animals, 19 of these poisons are nerve gases or poisons, 18 may cause cancer, 15 are mutagens, 15 could cause birth defects and 19 can cause reproductive problems.....

Zane Gard M.D. told the Author that in his professional medical opinion volatile, synthetic pesticide poison exposures are the “trigger” for most heart attacks!

Resistance - Many insects, e.g., the Colorado potato beetle, *Leptinotarsa decemlineata* (Say), is only one of 13 insect and mite species identified by Georghiou in 1990 as having developed resistance to a wide range of insecticides and caused enough damage to be considered a critical problem. This insect has developed resistance to almost all synthetic insecticide poisons, including arsenicals, organochlorines, carbamates, organophosphates and pyrethroids (Gauther, et al 1981) and *B. thurigiensis* (Whalan, et al 1993). Resistance of the Colorado potato beetle has been reported since the 1940's and the insect is now resistant to multiple classes of insecticides (Forgash, 1981, 1985). Intense insecticide application led to this resistance. Forget using insecticides to *control* pests. Pestisafes®, e.g., Safe Solutions, Inc. enzyme cleaners or food-grade DE, will **still** kill this pest.

Given this barrage of sobering statistics, why would intelligent and caring people intentionally and regularly saturate their schools, homes, workplaces and lawns with these volatile, toxic and useless poisons? It makes no sense to use volatile poisons that do not even control pests and are known to impair and/or destroy children's lives and their ability to think and develop normally, in the very places that are mandated to provide a safe learning and growing environment. We've been listening to poison *industry* lies and bingeing on volatile, synthetic pesticide poisons for too long. It's time to get off the toxic merry-go-round. Is it possible for you to finally understand that you and your family deserve ZERO EXPOSURE to volatile, synthetic pesticide poisons or do you want to continue on like lemmings running to the sea? Let us move on from risk management or “assessment” to pesticide risk prevention.

So little is known about the total mental and/or health effects of “registered” pesticide poisons, and the *inerts* and/or the contaminants that are integral to them, that full health risk assessments for pesticide poisons cannot be completed in any meaningful sense. At present rates of study, it will take centuries or longer before sufficient information has been gathered. Therefore, assurances of “safety” from most currently “registered” pesticide poison exposures cannot be based on sound scientific evidence, but more on wishful thinking, or guesswork. This is truly “junk science”. The very survival of man and the earth depends on fresh air, clean water and uncontaminated food. So, until you have tried **all** of the safe alternatives or Pestisafes® in this IPM manual, **The Best Control**, never use **any** dangerous, volatile, synthetic pesticide poison.

The really strange thing to me is that people, especially educated people, will continue to spray these dangerous poisons even through they never get any real pest control results! No one should ever use any “registered” pesticide poison twice (especially even more) after it has failed to control the pest problem the first time. The failure clearly should tell you the pests are resistant or immune at least to that particular poison!

Now, if you are finally willing to stop acting like a suicidal lemming - let us continue on with safe solutions, alternatives and common sense (Intelligent Pest Management®) rather than blindly continuing on poisoning and killing ourselves, our children, our food, our ambient air, our soil, our water and our world needlessly!

Even some people in the pest control industry are beginning to agree: Heather Gooch in the December 1997 issue of Pest Control reports, “Glen Rollins, vice president, corporate development for Orkin Pest Control, Atlanta, GA., addressed the topic of the industry's future at the National Pest Control Association's 1997 Academy in Scottsdale, Ariz. Rollins, who has been in the industry since his teens, says it's ironic that many of the so-called trends of the future are what he has been learning from pest control operators (PCOs) for several years. ‘The first challenge is safety concerns that exist in the marketplace,’ he states. ‘When I started in ‘79, there was a certain number of customers that had some satisfaction if you treated their home with malathion in warm weather! They really didn't have the phobia they have nowadays, and I think we've all heard that and known that for a while.’ According to a study done by the University of Kentucky, Rollins notes, 66 percent of Americans polled believe that pesticides cause cancer. For both their home and work environments 77 percent

are concerned about pesticides. Eighty-five percent want pesticides with no odor and 62 percent prefer only outdoor treatments. A very telling statistic states that 83 percent of those polled would pay extra for a PCO to use less pesticides in the account. Seventy-five percent of that group would pay between 10 and 25 percent more for the same results. 'I think that's significant,' he intones. 'I don't think that was true when many of us started in the business. Americans aren't just afraid of pesticides, they are afraid of us,' he continues. Rollins quotes a recent Gallup survey, where 65 percent of Americans polled confessed to having a pest problem, but only about 10 percent of that group actually called a pest control professional. 'I think there's a tremendous amount of opportunity for PCOs to narrow that gap,' he states. Of those surveyed, 54 percent believe the pesticides used by PCOs are harmful, and 64 percent said they'd wait until a problem was 'severe' before calling a PCO. The overriding reasons included the belief that pesticides may jeopardize the safety of the homeowners' children or pets, and the belief that the pesticides PCOs use in treatments were 'too strong.' 'Why is this important? Well, I believe that what we do is safe, providing a pest-free environment in a responsible way.' Rollins notes. 'There are a lot of misconceptions out there, though. We need to take responsibility for narrowing those gaps. I think our market could be a lot bigger than it is right now.'” **He should have heeded his own advice: CBS EVENING NEWS with Dan Rather, The Exterminators from Hell - A Church in Kansas Had to be Rebuilt - Minister and Staff Inhale Poison** — HARPER, Kansas, Wednesday, December 16, 1998 - 09:49 AM ET — (CBS) The Methodists in Harper, Kansas, are thankful they finally have their church back. It had been closed for more than a year. But Angela Thurston is not ready to forgive those she believes took her church and her health away. CBS News Correspondent Sandra Hughes reports for *Eye on America*. “We didn't know better. We thought they knew what they were doing. We trusted them,” says Thurston. They trusted the Exterminators that the church Secretary called after termites invaded the church. An exterminator needed to drill near the underground air conditioning and heating ducts, which is why three pest control companies refused the job, saying it was too dangerous. Then the church called the Orkin man. “They told us, ‘we could do it, no problem. We're experts at this.’ We believed them!” Thurston says. But she couldn't believe who was drilling the holes for the pesticides. “They were just drilling down in the thing, coming back up.” They were teenagers hired from the local temp agency. “It was negligence from the word go,” says Minister Lee Lauderback. “Untrained people doing it as cheaply as possible, and, therefore, mistakes were made, and people suffered for it tremendously.” The minister got sick and so did the secretary. There were allergy symptoms at first, then memory loss, depression, all signs of pesticide poisoning. It was an ongoing battle and it just got a little worse and a little worse all the time. A State Inspector confirmed their worst fears. He wrote, “I have not seen in my career as many holes drilled in ducts.” The pesticide, chlorpyrifos, seeped into those heating ducts, and every day the minister and staff were inhaling the poison. “Every item in this church that possibly could absorb chemicals was removed, and the church was literally rebuilt inside and out,” says the Minister.

Orkin paid to rebuild the church, but would not talk to CBS News about this case. Saying it performs 11 million “registered” poison treatments annually, Orkin claimed this is not representative of its work. Just last month, Orkin was ordered to pay \$2 million for contaminating a Florida home. In Boise, Idaho a couple, Bill and Lorraine Inger, say they were forced to abandon their home and everything in it after Orkin treated their house for carpenter ants. They say they both got violent headaches. “It would split your skull in half,” says Bill who also claims Lorraine's speech was affected. “What I was calling lag has now gotten into a full blown stutter,” says Lorraine. And the Toxicologist who tested the home for pesticide levels states, “I don't recall in 30 years ever finding levels that high.” Orkin would not answer questions about this case either, but told us an Idaho State Inspector found no problems with the pesticide application. We talked to that Inspector and he admits he wrote his report without doing any testing of the Inger home. Now that is real “sound science”.

Training is a serious problem throughout the industry, according to a Spokesperson for the Pest Control Association, who told us federal requirements are woefully inadequate. Orkin claims its training is the best in the business. Rev. Lauderback doesn't put any faith in that claim. “If they'll treat a United Methodist Church this way and a United Methodist pastor, and don't really care, then what are they doing to everyone else across the countryside?” (Reported by Sandra Hughes, Copyright 1998, CBS Worldwide, Inc., All Rights Reserved)

Al Gore in his **Earth in Balance** notes on page 24 that the living species of animals and plants are now vanishing around the world, **one thousand times faster** than at any time in the past 65 million years! The normal or “background” rate of extinction remained essentially unchanged for the last 65 million years - from the disappearance of the dinosaurs until the present century! Edward O. Wilson of Harvard University, alerting the public to the “biological diversity crisis” reversed his estimates of loss in the early 1990's, based on a conservative figure of 10 million species living in tropical rain forests - indicated the extinction rate could be as high as 74

species per day or 27,000 per year! Leaky estimated in 2001 that we now will lose 50,000 to 100,000 species of plants, animals and insects every year! Most of those species are unstudied, even unnamed. Oh that someone had listened to an *ignorant savage* called Chief Seattle when he responded in 1855, to President Franklin Pierce who stated he would buy the land of Chief Seattle's tribe.

How can you buy or sell the sky? The land? The idea is strange to us. If we do not own the freshness of the air and the sparkle of the water, how can you buy them? Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every meadow, every humming insect. All are holy in the memory and experience of my people....

If we sell you our land, remember that the air is precious to us, that the air shares its spirit with all the life it supports. The wind that gave our grandfather his first breath also received his last sigh. The wind also gives our children the spirit of life. So if we sell you our land, you must keep it apart and sacred, a place where man can go taste the wind that is sweetened by the meadow flowers.

Will you teach your children what we have taught our children? That the earth is our mother? What befalls the earth befalls the sons of the earth.

This we know: the earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself.

One thing we know: Our God is also your God. The earth is precious to Him and to harm the earth is to heap contempt on its Creator. <http://www.getipm.com/personal/seattle/seattle.htm>

The Author likes to compare the above thoughts of this unschooled environmentalist [who did not even have a GED] with the thoughts of a highly educated Los Angeles surgeon, Dr. Ian MacDonald who was quoted in NEWSWEEK, November 18, 1963: "For the majority of people, smoking has a beneficial effect." Finally, the Author likes to remember that time began in a garden (Gen. 2:15); it would be a terrible desecration for it to end in a "garden" that "caring" man has used to destroy the earth (Rev. 11:18). Each day must truly be Earth Day! — S.L.T.

"To sin by silence when they should protest makes cowards of men." — Abraham Lincoln

"Never doubt that a small group of people can change the world - indeed it is the only thing that ever has!" — Margaret Mead, Anthropologist (1901-1978)



"All flesh is grass, and all the loveliness is like the flower of the field:
The grass withers, the flower fades." Isaiah 40:6-7

"And the nations were angry, and Thy wrath is come, and the time of the dead that they should be judged, and that thou shouldst give reward unto Thy servants the prophets, and to the saints, and them that fear Thy name, small and great; and shouldst destroy them which destroy the earth." Revelation 11:18

Commonly Found Cancer-Causing Pesticides and Their Cancer Potency

Acephyate	.0069
Azinphos-methyl	.00000015
Benomyl	.002065
Benzene hexachloride (BHC)*	6.3
Captafol	.025
Captan	.0023
Chlordane*	1.3
DDT*	.34
Dicofol	.44
Dieldrin*	16.0
Folpet	.0035
Heptachlor*	4.5
Hexachlorobenzene (HCB)*	1.7
Lindane*	1.3
Linuron	.328
Parathion	.0018
Permethrin	.03

Some of the most dangerous cancer-causing pesticides are ranked here according to their carcinogenic potency, a scale of relative carcinogenicity determined by the Environmental Protection Agency based on animal experiments. The larger the number, the more carcinogenically potent the chemical. Not all "registered" pesticides suspected to cause cancer have had a cancer potency number assigned, so many "registered" pesticides that may cause human cancer are not included on this list. "Registered" pesticide poisons that are followed by an asterisk have been banned for use but are still present in the soil or are used on foreign crops, which are then imported into the United States. Source: "Diet for a Poisoned Planet" by David Steinman

Environmental Pollution and Degradation Causes 40 percent of Deaths Worldwide, Cornell Study Finds

Source: Cornell University, Posted 10/1/98

ITHACA, NY — A Cornell University analysis of population trends, climate change, increasing pollution and emerging diseases, as published in the October 1998 journal *BioScience*, points to one inescapable conclusion: **Life on Earth is Killing us.**

An estimated 40 percent of world deaths can now be attributed to various environmental factors, especially organic and chemical pollutants, according to a study led by David Pimentel, professor of ecology and agricultural sciences at Cornell.

B. & D. A. Weisburger, Inc.'s ad in the December 1998 issue of *Pest Control Technology* noted: "Over 500 chemical accidents are reported to the federal EPA every month. If the guys in the 'moon suits' show up at your spill site, are you protected?"

The human body gets 60% of its energy from the air we breathe; we, obviously, need clean air to function well. The best way to have clean air is not to pollute it in the first place. If you have already polluted your air, however, you may want to scrub it with an air purifier.

The Author has a Friend who is a medical researcher who told him half of what he now teaches will be found to be false in 10 years; the only problem is that he did not know which half! Makes you think, doesn't it!

There is an old Yiddish phrase, "Man drives but G-d holds the reins."

The unfortunate by-products of all synthetic pesticide spraying are that synthetic pesticides harm (non-target) people and animals and eventually only kill those vulnerable pests that have no resistance at all, truly creating super pest problems.

FIFRA as amended in 1964: Required USDA Secretary to refuse registration of pesticides that were unsafe or ineffective from the market. <http://www.btny.purdue.edu/Pubs/PPP/PPP-24/ppp24pg1-9.html>. The Author finds it amazing that any pesticides are still on the market or "registered" as these terrible toxins are neither "safe" nor "effective".