

CENCERN

Inc.

*From FOCC meeting
of 11/14/73 - Peggy Nelson*

October 12, 1973

Dear Concerned Citizen:

Our Eco-Tips #6 on Food, Chemicals and Health is included in this mailing. Our food committee has done extensive research in this field, utilizing scientific studies, information from government agencies and suggestions from other consumer groups. We have tried to present the most relevant data we could find on issues of common concern to the general public. We realize, however, that the Eco-Tips will not, answer all the questions all of you have about chemicals in your food. If you do have unanswered questions, we encourage you to read further on the subject; a reading list which you may find helpful is included on the back of the Eco-Tips.

Please note that we are offering our Living Garden calendar again this year (see flyer on back).

We thank all of you who responded so generously to our appeal for funds in our last mailing. Our friends are vital to us if we are to continue with our work. We are most grateful for your help.

Yours sincerely,

Nancy W Ignatius

Nancy Ignatius
President

2233 Wisconsin Avenue, Northwest, Washington, D.C. 20007, 202/965-0366

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of
Directors*

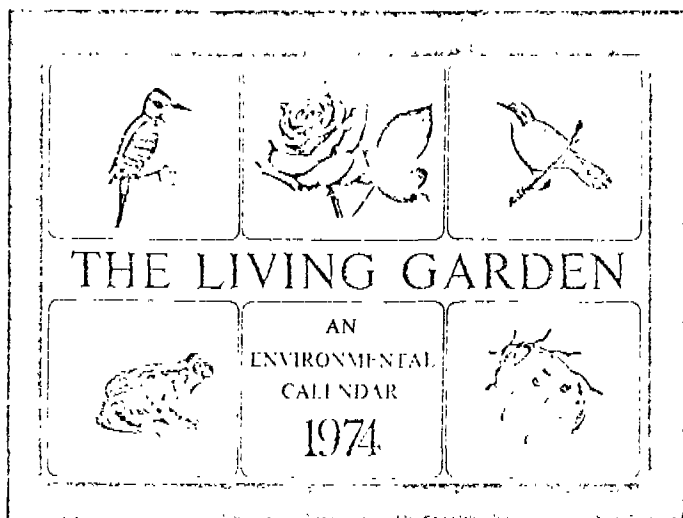
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Concern, Inc. *PM*

Eco-Tips #6

FOOD * CHEMICALS * HEALTH

Most Americans eat a diet rich in "foods" created in a chemistry laboratory and made "delicious" with sugar. Thickening agents, artificial flavoring and coloring, preservatives, synthetic emulsifiers, accidental additives (pesticides, water pollutants and processing aids), animal feed additives (growth hormones and antibiotics), and a few added vitamins make up our "chemical feast."

Most of the thousands of chemical additions are assumed to be safe, but not infrequently a chemical widely used in our food is found to be dangerous and is banned. By that time two hundred million people may have been exposed to an unknown danger and often years elapse before a suspect chemical is finally removed from the market.

ADDITIVES: COMMON AND CONTROVERSIAL

- **Vitamins and Minerals** — There is, of course, nothing wrong, per se, with vitamins and minerals—except for the possibility of getting too much A and D. Their presence as additives, however, often indicates that the food is missing in natural nutrients (i.e., it has lost them in the processing), as with white bread and processed cereals and flour. Sometimes the manufacturer will put back a few vitamins and minerals and use the words "enriched" or "fortified" on his product. Cereals made this way tend to become an expensive form of sugar coated vitamin pills.

Processed, fortified foods such as these do not take into account the human need for roughage or for trace minerals such as zinc, copper, chromium and manganese which exist in those parts of the grain that have been refined out, along with a number of vitamins. Trace element deficiencies exist in large numbers of Americans, contributing to heart disease and to a decreased resistance to diseases in general.

Fortunately, there are several alternatives to overly processed breads and cereals in the market place—whole grain breads, brown rice, wheat germ, granola, and other whole grain cereals.

- **Nitrites** — Almost every sample of bacon analyzed in the Department of Agriculture's laboratories has contained nitrosamines, minute amounts of which have caused cancer in every species tested, and, when eaten by a pregnant animal, can cause both tumors and birth defects in the offspring.

Nitrosamines form when nitrites combine with amines found in food, drugs, beverages, and possibly in the stomach itself.

Sodium nitrite is sometimes used to color and slightly flavor cured meat and fish, including ham, bacon, hot dogs, corned beef, luncheon meats, and smoked fish.

There are many wrong and/or misleading statements in these Eco-tips and rebuttals could be prepared to refute many if not most of them.

But who can do this and still have time to hold down a job?

Tom 1/14/73

ASI 00003206

The meat industry maintains that nitrite is essential to prevent the growth of the bacteria that cause botulism. However, neither bratwurst nor breakfast sausages contain a preservative, and yet they are entirely safe to eat. Nor does the fact that they are greyish instead of pinkish deter the shopper.

Other means of preservation that can be used to replace nitrites include refrigeration, freezing, and sterilization.

Eating bacon will not necessarily cause cancer, but it should be clear that all unnecessary hazards should be eliminated from our food supply.

Nitrogen fertilizer can be transformed into nitrates by biological processes in the soil. In the spring, excessive amounts of nitrate fertilizer run-off can enter our drinking water supply. This situation can lead to methemoglobin formation in infants, resulting in oxygen deficiency. If there are infants in your household your well water should be tested for nitrates by your local or county health department.

- **Cyclamates, Saccharin and Sugar** — The National Academy of Sciences began warning the public against artificial sweeteners in 1954—sixteen years before cyclamates were banned. During that sixteen year period, animal tests revealed that cyclamates caused bladder cancer, birth defects, and mutations, but the FDA did not comply with the law that prohibits the use in food of unsafe chemicals until tremendous pressure from Congress and the public forced it to take final action in 1970. The cyclamate industry is currently trying to change the ruling. Cyclamates are cheaper than sugar and therefore are more profitable for the food and beverage industries to use.

Saccharin is another synthetic sweetener, three to five hundred times sweeter than sugar, costing 1/20th as much to the manufacturer. It is widely used in "diet" products, although it is suspect as a weak carcinogen, and must carry the warning label—"saccharin is a sweetener which should be used only by persons who must restrict their intake of ordinary sweets." The warning does not seem to be taken seriously by the public.

Sugar! Americans eat a tremendous amount of it, much of it hidden in manufactured foods. Our per capita consumption of soft drinks has doubled in the past twelve years. And the processed food industries supply us with an ever-increasing amount of pie, cake, ice cream and presweetened cereal.

"Sugar" includes sucrose, dextrose, glucose, invert sugar, and corn syrup. Many people have the idea that you eat sugar for energy. Sugar can give you "quick energy" but no other benefits. For "quick energy" a glass of orange juice, with its vitamins A and C, is excellent. For sustained energy, protein is the key. Refined sugar does not contain vitamins, minerals or protein—which accounts for the words "empty calories" often used to describe sugar. "Empty calories" replace nutritious food in the diet. If 20% of your calorie intake comes from sugar (which is average for Americans), it means that 100% of your vitamin, mineral and protein requirements must come from 80% of your food.

Excessive amounts of sugar may cause tooth decay, obesity, heart disease, vitamin deficiencies, and diabetes. Refined carbohydrates (sugar and starch) may contribute to cancer of the intestine and rectum.

- **Artificial Coloring** — Nearly 95% of all artificial colorings are synthetic dyes, like the coal tar dyes widely used in the past. Because of the great increase in factory-made and artificially colored foods since World War II, thousands of pounds of these dyes are now certified annually by the FDA. Certification means that a coloring has been inspected for impurities, not that adequate toxicology studies have been conducted.

Colors which have been in wide use have been shown by further studies to be toxic or cancer-producing and have been banned by the FDA. The most recent example of this is Violet I, a food stamp dye banned earlier this year. Dyes still in use have not been thoroughly tested, and hardly any studies have been done for mutations and birth defects.

Artificial coloring need not be listed at all on the labels of cheese, butter and ice cream, but appears in most of these products. In other products such as beverages, candy, ice cream, dessert powders, baked goods, hot dogs, cereals, maraschino cherries, pet food, cake decoration and food coloring it is only listed as "artificial coloring" or "U.S. Certified Color," not giving its exact name. This is unfortunate since many of these products contain colors about which there is current scientific controversy.

Grocers' bins should, but do not, indicate when fresh produce is artificially colored, as in the case of Citrus Red 2, a potentially hazardous substance sometimes used to color the skin of oranges. Artificial coloring often deceives the shopper and may be hazardous.

The dye carotene, used to color margarine, is not harmful.

- **A Few Additives** happen to have some nutritive value, such as calcium propionate, casein, ascorbic acid, lecithin, and ferrous gluconate. Some that should be avoided are BHA, BHT (also known as "freshness preserver"), brominated vegetable oils, and monosodium glutamate — particularly for babies.

HEALTH: HAZARDS AND SAFEGUARDS

Not all additives have been systematically tested. Many have not been studied for their ability to cause cancer or other diseases such as heart disease and brain damage; fewer have been tested on pregnant animals for birth defects and miscarriages; and hardly any have been studied for genetic mutations. Many chemicals have no immediate toxic effects and complications do not appear for months or years after a person is exposed to the chemical.

- **Carcinogens** — chemicals that cause cancer. It is a common misconception that any chemical will cause cancer in test animals if fed in large enough doses. This is not true. The National Cancer Institute says, "Of 120 pesticides and industrial chemicals which were tested in a particular study only

It resulted in a clearly elevated tumor incidence when fed at the maximum tolerated dose." (The maximum tolerated dose refers to the highest level at which a chemical can be fed to an animal without causing it to die of acute poisoning.)

It is sometimes argued that ingesting a small amount of a carcinogen is all right. But some cancer researchers say that small amounts of carcinogens (1) may accumulate in the body, and (2) that each minute dose may cause minute damage.

Another argument often heard is that a chemical which causes cancer in animals does not necessarily cause it in humans. But if we are to avoid mass human experiments, we must accept the possibility that human reaction to a chemical may be the same as that of an animal. In fact, humans are *more* sensitive to some chemicals than animals, as is the case with thalidomide, to which women are 30 to 200 times as sensitive as rabbits, mice, rats, hamsters, and dogs.

- **Teratogens** — chemicals that cause birth defects. According to the National Foundation-March of Dimes, every year 250,000 American babies are born with such defects as mental retardation, blindness and heart defects, and it is estimated that environmental factors, such as food additives, drugs, and pollution contribute to 80% of these birth defects.

In 1962, the thalidomide disaster (babies born with deformed arms and legs because of the sedative taken by their mothers during pregnancy) dramatized the possibility that supposedly safe chemicals in our increasingly synthetic environment may endanger the development of an unborn baby.

- **Mutagens** — chemicals that cause genetic changes. Genetic mutations may alter the development of the next generation or generations with such results as hemophilia, cleft palate, mental retardation, Mongolism, and decreased resistance to disease.

Although geneticists developed practical methods of detecting chemical mutagens in the 1960's, only a few food additives have been tested so far, and the FDA has not required manufacturers to test for these mutagenic effects.

Minimum testing should include:

- Acute toxicity tests to show the effects of large single doses of a chemical.
- Short-term toxicity tests of 30-180 day exposure to show the effects of a chemical mainly on liver and kidney function and blood composition.
- Long-term or lifetime tests (two years in rats and mice, seven years in dogs) to show whether a chemical causes cancer or chronic effects.
- Other special tests to show interference with reproduction, birth defects and mutations.
- A system in which testing laboratories could be truly independent—by inserting an impartial middleman between the company that proposes a food additive and the laboratory that tests it. It is no longer acceptable to rely solely upon research data organized, bought and paid for by the chemical manufacturers themselves.

PROTECTION: REGULATIONS AND REFORMS

- **The GRAS list** — In 1958 Congress passed a law requiring manufacturers to test a new chemical for safety prior to using it in food. Additives already in use before this date were accepted as being safe solely on the basis of their having been used in food for many years; scientific evidence of safety was not required. These are the chemicals of the GRAS list (Generally Recognized As Safe).

Manufacturers claim the right to decide what constitutes adequate scientific evidence of safety. And often the FDA waits until after the chemicals are in the food before it challenges the manufacturers' judgment.

In 1969 the President ordered a GRAS list review, which is slowly progressing.

- **The Delaney Amendment** — was passed by Congress in 1958 and specifically prohibits in food any chemical that causes cancer when fed at any level to animals or man. This amendment continues to enjoy the support of leaders of the cancer research community, even though criticized by some industry spokesmen. Unfortunately, as stated earlier, there is often a considerable lapse of time before the FDA feels that it has adequate scientific evidence to take a chemical off the market.

- **Labeling** — The FDA and the Department of Agriculture have established "Standards of Identity" which specify those additives and ingredients that must or may be used in common foods, such as bread, ice cream, jam, mayonnaise, soft drinks, hot dogs, etc. In such "standardized" foods only the name of the product need appear on the label, although sometimes the manufacturer arbitrarily lists some of the ingredients — presumably those which make his product seem most attractive.

For example, mayonnaise has thirteen mandatory and optional ingredients which need not be listed on the label, including (along with 10 others) oil, seasoning, all spices except two, and a choice of seven "sweeteners." The construction of mayonnaise is relatively simple compared with soft drinks, ice cream, and white bread.

The absence of full ingredient labeling is a particular handicap to the 39 million people with allergies or special low salt or diabetic diets. Nor does it allow a person to judge the quality of a product. Now, for example, can one know if the absence of salt or additives means that there are none in the product, or that the product is covered by "a standard" and is full of additives.

A bill (H.R. 1650) introduced by Congressman Rosen that from New York and meeting with heavy opposition, is awaiting action in Congress. It would require complete ingredient labeling.

- **Pesticide Residues** — Some 32,000 pesticide products, including insecticides, herbicides, plant growth regulators, rodenticides, bactericides, and fungicides—made from one or more of 900 chemical compounds—are currently registered with the United States Environmental Protection Agency.

Hundreds of these insecticides are sprayed on our fruits and vegetables leaving residues on the food we

eat. In addition, herbicides and rodenticides when applied to the ground can enter the root systems of agricultural products. Fungicides, often applied after harvesting, add an additional chemical residue to our daily diets.

Regulations to protect human health and the environment rest in several governmental agencies. The Environmental Protection Agency is responsible for setting the tolerance level or legal limit for residues of specific registered pesticides. The Food and Drug Administration is responsible for the surveillance of residues on crops sold in the market, and the U.S. Department of Agriculture is the monitoring agency for pesticides in meat and dairy products. *However, none of these agencies can control or monitor our entire food supply, nor can they evaluate all the residue accumulation from the various items in an every day meal.*

Governmental regulatory agencies rely on animal tests supplied by the pesticide manufacturing companies to determine the potential toxicological effects of pesticide chemicals on human beings. Also regulations and analyses are based on average dietary patterns, thus not truly applicable to those individuals with special diets—vegetarians, medical patients, and young children, for instance. For specific dietary questions you should write to: Mr. Henry J. Korp, Deputy Assistant Administrator for Pesticide Programs, EPA, 401 M Street, SW, Room 539 East, Washington, D.C. 20460.

Although the application procedures on pesticide products are written to protect both the applicator and the consumer, there is no practical way to check each individual applicant's adherence to directions or to check each individual product for pesticide residue. However, the Federal Environmental Pesticide Control Act of 1972 states that pesticides must be classified for "general" use or "restricted" use within two years after October, 1974. Those placed in the restricted category may be used only by, or under the supervision of, certified applicators, or under such other conditions as the EPA Administrator may require, to protect man and the environment.

The need for a re-evaluation of the FDA's testing procedures and market-monitoring programs has been called for by consumer organizations and brought to the public's attention in numerous Congressional hearings. A provision in the Federal Food Inspection Act of 1973, now in Congressional committee, is geared to increase FDA's responsibilities and effectiveness in monitoring the safety of our food supply, and to open pending rule-making procedures for public comment.

We have all been brainwashed to some degree by the food industry and the FDA, seduced by processed foods, and led trance-like toward malnutrition by television ads.

There is need for a national food policy, coordinated between the Food and Drug Administration, the Department of Health, Education and Welfare, the Department of Agriculture, the Federal Trade Commission and the Environmental Protection Agency — a policy which will deal with present and future human health as it relates to the safety and quality of food.

CONCERN RECOMMENDS:

*EAT WISELY:

Meats

- Avoid bacon, hot dogs and all nitrite-containing meat and fish.
- Liver is a problem: It is highly nutritious, but also it is the organ which collects food contaminants such as growth hormones and pesticides. Fifty to seventy percent of beef livers are condemned due to abscesses.
- Trim off as much fat as possible. Some pesticides are stored in fat.

Fish

- Several years ago, high levels of mercury were found in swordfish, tuna, marlin and other large ocean fish and in some smaller fish in inland water where mercury was being dumped by industry. The FDA, in 1969, set a guideline of .5ppm of mercury in fish, and it is their view that most fish from commercial catches, including tuna, now fall within that guideline. Concern, however, recommends against eating daily portions of large fish (such as swordfish and tuna) over long periods of time.
- The angler should never eat fish from waters contaminated by sewage or industrial effluents. If in doubt, check with fish and wildlife or health authorities in your state.

Bread, Cereal, Flour and Rice

- Eat whole grain, unrefined cereals, whole wheat and rye breads, and brown rice.
- Avoid bleached white flour.

Fruits and Vegetables

- There is often a trade off: to peel the fruits and vegetables (e.g. apples, potatoes and carrots) and avoid the pesticide residue, or eat the peel and benefit from its nutrients.
- In any case, wash thoroughly all fruits and vegetables.
- Grow your own vegetables or buy them from local organic farmers or farmers' markets.
- Be aware that vegetables in your supermarket may have been stored for long periods. An article in Science Magazine, July, 1972, reports that some vegetables have high concentrations of nitrates, from nitrogen in the soil, that could, during shipment or storage, be converted by microorganisms into nitrites.

Drinks

- Limit your consumption of soft drinks. Approximately 60 ingredients, some mandatory, some optional, are used by the soft drink manufacturer to construct his product. These include potentially harmful ingredients such as artificial colorings, brominated vegetable oil, BHA, BHT, (to name a few), as well as the empty calories associated with a highly sugared product.
- In addition to the above ingredients all cola drinks and Dr. Pepper contain caffeine, which

has the same effect on the nervous system as the caffeine in coffee.

***WRITE FOR:**

- Natural grains and cereals if there are no health food stores in your area. There are many mail order outlets. Here are three:

Stur-Dee Health Products Company, Inc.
Island Park, New York 11558

Walnut Acres
Penns Creek, Pennsylvania 17862

Houston Health Food Distributors
6723 Stearns
Houston, Texas 77021

- Non-chemical pesticide protection:

Rodale Press, Emmaus, PA 18049, has a monthly magazine, "Organic Gardening and Farming," as well as lists of organic farmers and farmers' markets around the country.

The Cooperative Extension Service of your state agricultural college has information about non-chemical farming.

"The Living Garden Calendar" is published by Concern and The Audubon Naturalist Society, 1621 Connecticut Avenue, NW, Dept. ET, Washington, D.C. 20009.

***READ:**

"Eater's Digest" by Michael F. Jacobson

"The Chemical Feast" by James S. Turner

"Sowing the Wind" by Harrison Wellford

"Diet for a Small Planet" by Frances Moore Lappé

***WORK FOR:**

- A strengthened and effective food and drug police

***JOIN:**

For information on consumer action in your area dealing with food and food additives contact

Consumer Action for Improved Food and Drug
c/o James S. Turner
1625 Eye Street, N.W.
Washington, D.C. 20006

"Many Americans see the extensive use of food additives as raising not only profound health and economic implications, but also general questions about the very nature of our civilization." (For word to "Eater's Digest").

Dr. Jean Mayer, Professor of Nutrition
Harvard University, and Chairman
of the first White House Conference
on Food, Nutrition and Health

Concern, Inc.
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