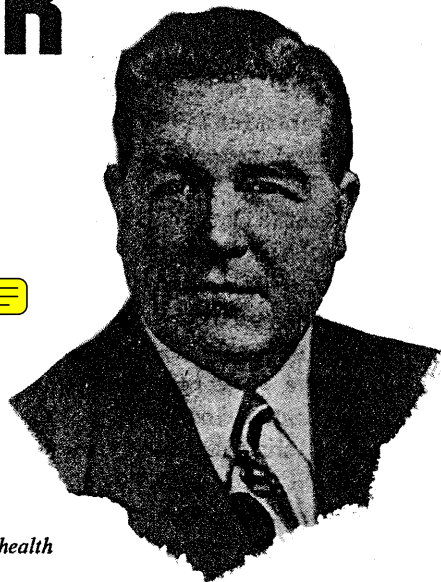


PERIL ON YOUR FOOD SHELF

by James J. Delaney

U.S. REPRESENTATIVE FROM NEW YORK



THE AUTHOR is chairman of the nonpartisan House Select Committee to Investigate the Use of Chemicals in Food Products. This body has been holding hearings for nearly a year to determine the effect of such chemicals on the nation's health

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NOT long ago a frozen-food packer was told that his new shipment of peaches would stay bright and fresh-looking if he added a touch of thiourea. He tried it. The chemical worked a miracle of freshness and coloring. The shipment went out.

Another frozen-peach firm did the same thing. Before shipping out its product, however, it invited the local Food and Drug Administration inspectors to test the food. Samples were fed to experimental rats. Within a few hours they all died.

By merest chance the inspectors then learned of the first packer's shipment. From that moment on, there took place as exciting and dramatic a chase as ever thrilled a Hollywood film audience. And this time the stakes were more than the price of an admission. They were the lives of thousands of men, women, and children.

Fortunately, the episode had a happy ending. All of the peaches—still bright and still deadly—were intercepted before they could be eaten by unsuspecting American families.

Other episodes have not ended so happily.

Several years ago a salt substitute was put on the market for use by people on a low-salt diet. It contained lithium chloride, a chemical whose effect had been only superficially tested. Three persons died before the "salt" could be withdrawn from the market.

These instances point up a blunt fact: Our food supply is being doctored by hundreds of new chemicals whose safety has not yet been established.

Many of these chemicals were developed during and after the war. Most of them may prove harmless, but enough have been proved dangerous and even deadly to make us wonder if our health is threatened.

In the year that the House committee has been investigating this problem, scores of noted scientists have testified that the rapid rate at which substances, heretofore foreign to the body, are being introduced directly or indirectly into our food is alarming and may have a serious effect on the health of all of us, especially our children.

Nothing is more important to the American family. It is axiomatic to say that the survival of the country, as well as its democracy, depends on the health of its citizens. The shocking number of our young men who cannot meet the relatively modest physical requirements of our armed services must make each of us ask the reasons for this reservoir of ill health in the midst of such a varied and abundant food supply.

THE growing number of mental diseases makes one wonder if there is not some connection between that problem and the many new chemicals used in our foods. In New York State alone, mental hospitals now care for 117,000 patients—almost one patient to be supported by every 100 citizens.

Why then, one asks, are new chemicals added at all?

The answer is easy. They are relatively cheap, easy, and work "wonders" as preservers, blenders, softeners, bleachers, emulsifiers, insect and fungus killers, and crop stimulators.

In one product, for example—bread—testimony has revealed that many bakers have been able to reduce the amount of shortening in the last several years by about 50 per cent. This they have done by chemical emulsifiers first put on the market in 1947.

Here is the over-all score-

An item in the Chicago Herald-American on August 26, 1954, mentions that a James Stone, Jr., of Paris, Ky., had his herd of 71 cattle sprayed with an insecticide to protect them against flies. Forty-four of them died. He found out why: The wrong insecticide was used and the solution was double the proper strength. It was supposed to be used on plants.

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board at the present time. The Food and Drug Administration has listed 704 chemicals which are being used in our regular food supply, of which only 428 are known to be safe. In other words, 276 chemicals are unknown and untested quantities and some of them may be slowly poisoning us!

This potentially lethal situation is due to a curious loophole in our present laws -- a tragic legal joker that permits us to become a nation of 150,000,000 guinea pigs guilelessly testing out chemicals that should *have been tested adequately before they reached our kitchen shelves.*

Doctors testifying before the House committee have stated that there may be some connection between these new chemicals and the increase of such diseases as cancer, polio, and the mysterious virus X.

It must be said emphatically that no reputable food manufacturer would knowingly use any substance known to be harmful. Indeed, most of the big processors of nationally advertised products -- companies like Swift, General Foods, Quaker Oats -- maintain elaborate laboratories where tests are constantly being made to safeguard the public. An organization like the A & P has several thousand people continually engaged in laboratory and field inspection of its products. They, as consumers themselves and as honest businessmen, are as anxious as anybody to ensure a pure and wholesome food supply.

But here is the rub: There is absolutely no law to prevent a small unscrupulous manufacturer from turning a quick dollar by using a substitute which is untested or, at best, inadequately tested.

And most important of all, there is also no law to compel testing new chemicals to determine what the cumulative effect would be *over a period of time*. On the whole, scientists are not so much concerned with the acutely toxic chemicals whose deadliness can be readily detected. They are more concerned with the small and insidious effects of substances which do harm only after being fed to people for months or years.

Under the present setup, the Food and Drug Administration can act legally only *after* the food product has been put on the market.

It is important to contrast this situation in regard to food with the situation in regard to drugs. In the latter, no such peril exists. The public is adequately protected. An amendment to the Food and Drug Act, passed in 1938, requires that a manufacturer submit evidence to show that a new chemical is noninjurious before he introduces it -- *even if the tests take 10 years to complete.*

Since no similar safeguard exists with food, many chemicals are used with no real knowledge of what they will do to the human system. Certain ones which cannot be bought in a drugstore without a prescription, for example, can be bought indiscriminately in a feed store to be fed to livestock or sprayed on crops, often ending up on our table.

A decade or so ago this situation was relatively innocuous. But since the war, during which new agents were discovered almost daily, the use of chemicals in foodstuffs has blossomed and spread like the proverbial green bay tree.

In Massachusetts, to cite a case, a big brewery not long ago got the idea of using hydrofluoric acid in its beer. It made unnecessary the sterilization of beer, a tedious process. The acid, however, is a serious poison. Before the Government was able to step in and stop the practice, the beer had been sold all over the country.

In Indiana, a manufacturer took to using a mineral oil in his popcorn instead of butter and other fats. He treated the oil with butter color, labeled it "edible fat", and sold it all over the United States. Mineral oil will not only wash out the fat-soluble vitamins in the food it is used in, but, by lining the stomach, will prevent the absorption of necessary vitamins from other foods eaten, leading to a dangerous vitamin deficiency. The fact that the popcorn was sold largely to children made the case more tragic.

There are hundreds of other cases -- perhaps not so dramatic but potentially just as serious.

There is nothing wrong with chemicals in themselves. Some, like common salt, have been used a long time in food products to enhance both taste and nutritive value. The introduction of vitamin D, another chemical, into milk has undoubtedly proved beneficial, and reflects a desire on the part of manufacturers to give consumers better and richer products. The enrichment of hominy grits with a component of the vitamin B complex has worked wonders in wiping out the disease of pellagra in certain poorer sections of the South, where that food is a staple.

In general, nutritionists agree that no new chemical should be added, however, unless it is definitely proved safe, serves a useful purpose, and is not a substitution in whole or in part for a natural food element.

Such is not the case at present. Here are a few foods in which chemicals are playing a questionable role:

POULTRY: Chicken producers, especially in the East, have found that by inserting a syn-

thetic hormone called stilbestrol in the necks of male chickens they can add weight quickly and increase the market value of their products. The chemical pellet causes the fowl to assume female characteristics. He becomes tender, develops greater deposits of fat, and grows faster.

Recently, it has been alleged that the residue of these chickens, sold to mink farms, caused the minks to become sterile and stop reproducing. As a matter of fact, there is a bill in the House of Representatives now to compensate the mink growers, who say they followed the advice of Department of Agriculture bulletins in feeding these chickens to their minks and thereby made the animals incapable of reproducing.

Canadian authorities have outlawed the use of stilbesterol, fearing it might cause sterility among people.

The product is still widely used in this country. It is spreading to sheep, pigs, and cattle. There is no legal way to prevent the amount used per animal being stepped up at any time to hasten the fattening process.

There is no evidence that the chemical is injurious to human beings. The point is, we don't know. Meanwhile, it continues to be used.

BREAD: Because of the demand of the housewife for ever-softener, ever-whiter bread, chemical ingenuity has flourished in this field.

For at least 25 years, Agene (nitrogen-trichloride) was widely used to give an artificial, quick-aging effect to flour. Three years ago an English chemist found that bread made from this flour caused epileptic fits in dogs. Although there was no evidence that it had a deleterious effect on humans, millers and bakers voluntarily agreed to abandon its use. The point is that no adequate tests had ever been made on Agene.

Bread softeners are now almost universally used. Some companies urge the consumer to "feel how soft the bread is" on the package. They do not explain that this extra-softness is arranged chemically. Polyoxyethylene-monostearate-type softeners were first introduced in 1947, when the price of shortening was high. Testimony has shown that many bakers have reduced their shortening about 50 per cent since they started to use this surface-active agent.

In 1949, two companies alone sold 30,000 bakers 10,000,000 pounds of chemicals. These chemicals are used as substitutes for fluid milk, butter, eggs, essential oils, and organic materials.

Although again there is no conclusive evidence that these new chemicals are harmful, there is plenty of evidence that they have reduced the nutritive content.

Dr. Anton J. Carlson, Chicago University's eminent physiologist and one of the world's greatest nutritionists, testified before the House committee that the insistence on white bread is a snob factor that comes down to us from the days of the Roman Empire 2,000 years ago, when the wealthy classes had white bread and the slaves' dark bread.

Testimony concerning bread has also revealed that it costs a bakery only one half cent more to produce a loaf of the highest quality than it does to produce one of the lowest quality. There would be little or no surplus of milk or wheat in this country if all bread products contained milk and flour in quantities found desirable by nutritionists. Such a policy would be a boon not only to the consumer but to the farmer as well.

SOFT DRINKS: The phosphoric acid used to blend soft drinks should not be used, experts have testified, without more testing. Experiments at the Naval Medical Research Institute showed that a human tooth put in soft drinks containing this chemical lost its enamel and became soft in 24 hours.

On rats it was shown that their molar teeth dissolved down to the gum line if the rats were well fed for a period of 6 months but were given nothing to drink but this beverage. Dr. Clive McCay, Cornell University nutritionist, has stated that the acid may account for this deleterious effect, not the sugar.

"Since soft drinks are playing an increasingly important part in the American diet and tend to displace such good foods as milk, they deserve very careful consideration," he says.

MEAT: Some of the new chemicals reach our food indirectly through the use of insecticides and fungicides. The use of DDT, for example, has been widespread in dusting crops. It has been widely hailed as a wonder chemical in keeping the insect army under control.

Although, several years ago, it was shown that there was no immediately discernible toxic effect when it got into the human system in small quantities, it was not realized until recently that DDT will store itself in the body fat and can, eventually, have a cumulative and serious effect on the liver. It is also interesting to note that people suffering this last winter from virus X exhibited the same set of symptoms as people suffering from DDT poisoning.

The Texas Research Foundation, an independent nonprofit organization financed entirely by private business interests, recently analyzed ordinary meat products bought at random in local meat stores and found that the degree of DDT contamination in fat meat ran as high as 69

parts per 1,000,000 The Food and Drug Administration has set 5 parts per 1,000,000 as a safe maximum. Toxicity tests have shown that even as little as 5 parts per 1,000,000 DDT will produce slight but definite liver injuries in rats.

FRUITS AND VEGETABLES: Chlordane, first introduced commercially in 1947, has been used as an insecticide on a large variety of fruit and vegetable crops. In the first 9 months more than 1,000,000 pounds were sold. Since then its use has become even more widespread. The director of the Food and Drug Administration's pharmacology division, Dr. A. J. Lehman, recently testified that chlordane is 4 or 5 times more poisonous than DDT and that he would hesitate to eat any food that had any chlordane residue on it at all.

As a result of testimony developed by Vincent A. Kleinfeld, chief counsel of the House committee, Dr. Charles S. Cameron, medical and scientific director of the American Cancer Society, revealed that we are by no means sure whether the residue of arsenic sprays on food-stuffs does not cause cancer, and that such a possibility could be determined only by further studies, and for this reason the American Cancer Society was vigorously backing additional legislation.

Another dangerous new insecticide is selenium. Animal experimentation has shown that 3 parts per 1,000,000 in the diet will produce cirrhosis of the liver and that animals may eventually develop cancer of the liver.

Many other pesticides have been used or proposed for use. Their safety has in no way been established. So far as is known no immediate deaths have resulted from their use. But there likewise is no evidence of what they will eventually do.

The above are only a few examples of groups of food in which new chemicals, introduced by irresponsible manufacturers, are playing an unknown role.

The public must be given the same sort of protection in its food that it gets in its drugs. Actually, foods are more important. Drugs are used only when someone is sick, and then generally only under a physician's direction. Foods are eaten promiscuously.

Just what legislation will be recommended to Congress as a result of the hearings now being held before the House committee is as yet undecided. And just what Congress will do about such recommended legislation is equally uncertain.

The committee feels, however, that just as no honest person worries about the penalties for burglary, no honest food processor need worry about any changes in the food and drug laws.

All of the testimony given before the committee, of course, leads to one obvious question: What can the average housewife do to protect herself against a growing use of chemicals which eminent nutritionists have called "alarming"?

In the opinion of most, the solution is not for the housewife to become an amateur chemist but to insist that Congress give the Food and Drug Administration adequate legislation to handle the problem before the product gets on the market.

Women played a prominent part in pushing through the legislation which guaranteed the pre-testing of drugs. The General Federation of Women's Clubs was solidly behind the amendment and exerted enormous pressure. It is not too much to expect that the same thing will happen with food. Individuals, of course, can write their Congressmen, but organized groups of individuals are much more effective.

Housewives can also help by not asking for extra-soft, extra-white, extra-smooth food products. There is a temptation on the part of some manufacturers to supply them by using cheap and easy chemical additives rather than expensive shortenings and blenders. In general, housewives should demand as many enriched foods but as few preservatives as possible. They should also learn to read labels carefully, especially when buying a new product. They should demand not only complete and exact labeling, but the proportions of each ingredient. At the moment there is a proposal to fix the minimum amount of natural ingredients in various products; for example, the minimum amount of milk solids to be used in bread products. At present the average quantity is only 1½ per cent.

The last time the Food and Drug Law was amended it took 5 years to get it through. Open opposition to such legislation is rare. It's like coming out in favor of sin. But the danger is that undercover opposition might persuade Congress to let the legislation die, or at least emasculate it.

The pre-testing-of-drugs amendment was pushed through only at the last moment, when 100 people died as a result of drinking an "elixir of sulfanilamide" into which a solvent, previously used only in car radiators as an anti-freeze, had been introduced. The drug had been thrown on the market without adequate testing.

There is no legal way — at this moment — to prevent this happening again in food!

Far from a groundless scare, this has a terrifying basis of reality. It almost happened when thiourea was put in those frozen peaches.

For the safety of all Americans, it is vital that adequate legislation be passed. Especially before we have another tragedy to pin-point the need.

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