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Let's Keep A Level Head About PCBs

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Poultry, meat and eggs are more wholesome and of better quality today than ever before in history. Advances in nutritional science, food science, disease control and over-all quality control continually improve the quality and wholesomeness of the poultry meat and eggs offered in the supermarket.

The above statement, although true, does not appear to be newsworthy. Almost the only time the consumer reads in newspapers or hears on TV about meats, milk or eggs is the rare instance when some industrial chemical has been found to accidentially contaminate one of these foods. Undoubtedly, some contamination of food products has been occurring for centuries. Many contaminants such as Salmonella organisms or arsenic from by-gone insecticides caused serious illness. These problems have almost become a thing of the past.

Egg and meat processing methods today are designed to detect and eliminate unwholesome or contaminated foods before these reach consumer outlets. Better and better analytical equipment can detect the various microbial or chemical contaminants which might find their way into the food production system. These are detected at extremely low levels — parts per million, or even parts per billion. This improvement in analytical methods does indeed protect the consumer to a much greater degree than was possible in years gone by.

Let's look at the recent accidental contamination of some feedstuffs by polychlorinated biphenyls (PCBs). Two publicized instances have occurred during the past year.

PCBs have important industrial applications. These fluids, which conduct heat but do not burn, are valuable for use in cooling high voltage transformers; they are of great value for uniform heating of many different kinds of cookers and pasteurizers. But they may sometimes leak into the food or feedstuff being cooked or pasteurized. This leakage must be spotted and the contaminated food or feedstuffs immediately destroyed.

Thus, all food or feed-processors using PCBs or similar materials must maintain quality control measures to guarantee that their products are not contaminated with any industrial chemical.



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Tests in the author's laboratory have shown that levels of 0.5 or 1.0 ppm. of PCB (Arochlor 1248) in the diet of laying hens caused no harm to the hens or to hatchability of their chicks. However, 10 ppm. in the diet reduced hatchability about 50%, and 20 ppm. almost entirely eliminated hatchability. (The results of these tests were reported at the 1971 Cornell Nutrition Conference.)

How should we handle this very serious problem?

Is it best to decide never to use a feedstuff which was once-upon-a-time contaminated?

Should we decide never again to use fish meal in diets for animals? Or should we insist that feedstuff suppliers furnish guarantees, based on quality control analyses of each batch, just as the feed manufacturer and the poultryman must guarantee his products?

One of the incidents of PBC contamination of poultry has allegedly been traced to one batch of dried bakery product. Analyses of several different production batches of dried bakery product conducted during the incident, and analyses of all batches produced since then, have shown that this product contains negligible levels of PCB. The amounts presently found are probably due to the PCB content of the bread wrappers and other paper ground up with the bakery products. These levels already are far below those found to be of concern. And furthermore, the present recognition that recycled paper is responsible for much of the worldwide distribution of PCBs had caused all food processors such as bakeries, etc. to insist on use of virgin paper for their food wrappers.

In spite of these evidences of low PCBs, less, than the levels found in many other feedstuffs, most feed manufacturers have eliminated dried bakery product from their feeds. This complete shunning of a worthwhile feed ingredient which has been certified low in PCB contamination does not appear to be justified.

Many valuable feedstuffs are byproducts of other food industries. These feedstuffs have been of immense value in the continuing economy of meat, milk and egg production in this country. The use of these materials in rations for poultry, hogs and cattle has played a vital role in recycling products which otherwise would cause serious solid waste disposal problems.

The present shunning of one or two valuable feedstuffs because of a "one-shot" accidental contamination with PCB has taken these ingredients out of the recycle system, and provides a potential disposal problem which could result in a serious environmental pollution.

Let's not be ruled by emotions and anxiety neuroses!

Let's make sure that whatever we use in our feeds in the future be backed by quality control analyses, and let's favor the use of those products that are analyzed and found to be wholesome.

There are thousands and thousands of planes in the sky all over the world each day. The pilots, mechanics and traffic control people do a magnificent job of preventing accidents. Although that story is seldom mentioned in a newspaper or a TV newscast, when one plane goes down, anywhere in the world — that's news. It scares people. In reality, each accident is thoroughly investigated. Often something is found which helps the plane designers to make flying safer than ever.

In like manner, isolated incidents of feed contamination do not mean that all of our foods are hopelessly contaminated. They point up to us the never-ending responsibility to alert ourselves to the new threat, cope with it, and eliminate it from our food chain. This can be done if we insist upon it. #

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