From the desk of
ELMER P. WHEELER

W. B. Papageorge
Ed John
~~Howard Bergen~~
W. R. Corey
Sam Pickard/Warren Easley
P. S. Park
R. A. Stohr
W. R. Richard
R. E. Keller
Scott Tucker
P.J.A. Marsh
John Durland

may be useful at Bridgeport

MONS 200995

"Nothing will decrease the high sugar consumption . . . as fast as the indication on the label of the extra calories involved. For example, the difference among 100 grams of water packed peaches (141 calories), juice packed (204 calories), light syrup (263), heavy syrup (354), and the extra heavy syrup pack containing 357% more calories (440) than the water pack."

The Harvard report plugged for qualitative label statements of the types of fatty acids for food which "make a substantial contribution of fat," as well as label statements of salt content. The FDA fatty acid labeling proposal is still being considered in the agency's Bureau of Foods.

●

EPA-ER QUESTIONS FDA'S ABILITY TO ENFORCE PCB "TOLERANCES"

An official of the Environmental Protection Agency disclosed at the national meeting of the American Chemical Society that the "temporary tolerances" established by the Food and Drug Administration for polychlorinated biphenyls will be difficult to enforce (See FOOD CHEMICAL NEWS, April 10, Page 12).

Dr. Henry Enos of EPA's Perrine (Fla.) Primate Laboratory explained that the variety of PCB products produced by Monsanto as Aroclors complicates the problem for analytical chemists.

One of the biggest problems, he told a symposium on Current Problems in Food Borne Environmental Chemicals in Boston recently (See FOOD CHEMICAL NEWS, April 17, Page 44) is matching the unknown with the appropriate PCB standard.

"Metabolic alterations, weathering processes, and the existence of altered PCB formulations within a single substrate complicate the matching process," he said.

He pointed out that the reliability of early data on p,p'-DDT levels in environmental samples is frequently challenged in light of the increasing frequency with which PCBs are reported in the same or similar substrates, adding that the fact PCB levels have only recently risen to a level routinely detectable in analytical procedures "should provide some relief to this nagging doubt concering earlier data on p,p'-DDT levels."

Discloses FDA's Animal Feed Survey Results for PCBs

Enos also reviewed some new data on FDA's surveys of food and food packaging for PCB contamination, disclosing the results of the agency's work on animal feeds. He said less than 5% of the samples contained PCBs, and the maximum level detected was 0.6 p.p.m.

A more recent survey of recycled paper indicates that 95% of current production contains less than 5 p.p.m., compared to the 1970 and 1971 samples which showed that less of the positive samples were below the 5 p.p.m. level.

Enos did not dismiss the problem, however, pointing out that 75% of the food packaged infant cereal samples contained on the average of 0.3 p.p.m. of PCBs, with the maximum level found being 1 p.p.m. He emphasized that this "certainly crystallizes the potential seriousness of this problem."

Enos also disclosed that samples analyzed by EPA also showed contamination of PCBs with chlorodibenzofurans.

At another ACS session, an EPA paper reported on work from the Chamblee (Ga.) Toxicology Laboratory in which the contaminants tetra - and pentachlorodibenzofurans were identified from two foreign products. Neither were found in Monsanto's Aroclor 1260 studied by EPA.

However, analysis of urine from rats on dietary levels of Aroclor 1254 for 272 days revealed the presence of an unidentified contaminant at the 304 (a tetrachloro component) mass number from mass spectrometric analysis.

Mass spectral evidence alone has not proved conclusively the identity of the observed component with a mass number of 304, the authors reported, but they added: "It is certain that the component is not the result of fragmentation of a higher molecular weight component of the isomeric commercial mixture. No attempts were made to either isolate or synthesize large quantities of the 304-component that would be necessary for further chemical and toxicological studies."

The authors concluded that their study raised questions about the purity of the commercial products, and suggests the need for additional work to establish the identity of the 304-component.

G. F. Fries and co-workers at the Department of Agriculture's Beltsville, Md., Research Center confirmed findings under controlled conditions of PCB residues in milk as a result of the use of Aroclor 1254 as an ingredient in coatings of some concrete silos.

PCBs in Milk Work Reported at ACS Session

Some farms had to be removed from the market as a result of PCB residues occurring in milk at levels exceeding FDA's guidelines from use of feeds stored in the silos.

In the controlled experiment, in which Aroclor 1254 was fed at a continuous intake for 60 days, Fries reported that concentration in the milk fat approached an equilibrium within this period, and approximately 20% of the PCB was excreted into the milk each day. Nine cows had been fed 200 mg/ day.

A second object was to determine the length of time that was required for the concentration in milk to decline to an acceptable level. Fries said the rate was slow, being about 1% per day, and he concluded: "Thus, when the farmers are forced from the market, it is a long and costly process before they can return."

Meanwhile, USDA announced last week that it has discontinued its three-part testing program for PCBs in poultry produced in an eight-State area resulting from contamination by an accident last year at a North Carolina fishmeal processing plant (See FOOD CHEMICAL NEWS, Aug. 9, Page 7).

PCB monitoring will continue for all chlorinated hydrocarbons, including PCBs, in all parts of the country, USDA said. The discontinued program required pretesting of each lot of birds before slaughter, or an affidavit that poultry was not fed contaminated fish meal. Two other States had previously been dropped from the testing requirements.

At an ACS press conference, Dr. Hans Falk, Associate Director for Life Sciences at the National Institute of Environmental Health Sciences, called attention to a rising concern over contamination of food from phthalates used as part of food wrappings that may be migrating (See FOOD CHEMICAL NEWS, Jan. 24, Page 2; and March 27, Page 18). In his presentation at ACS, Falk said that the phthalates were "suprisingly" non-degradable, but he noted that this property had been built in by producers in an effort to make them more stable.

Falk Warns of Dioxins in Pesticides

Falk also warned that other pesticides, in addition to 2,4,5-T where the problem was first publicized, contain "fair amounts of dioxin."

Ralph T. Ross of EPA's Perrine Laboratory also reported on new analytical technology for measuring dioxins in six dichlorophenols, six trichlorophenols, and three tetrachlorophenols.

In a presentation at a symposium on Nutrition and Public Policy, Dr. Olaf Mikelson of Michigan State University said too much emphasis was being placed on dangers from trace elements in food, and he blamed a large part of this on "the emphasis in the public press." He said this was causing a "great deal of harm."

In a response to one questioner, he said that it wasn't necessary to discontinue concern over these metals, but he suggested that the levels being uncovered in food are "much less likely to produce toxic effects."

Mikelson pointed to some benefits from metals, using selenium as an example, which he said has been shown to markedly reduce the toxicity of mercury when both are present in a food.

He also disputed current work linking cadmium to hypertension, using this as "an example" of the kinds of responsibilities scientists should undertake. He emphasized that critical appraisal of work of other scientists is absolutely essential "if we are to maintain our sanity." Otherwise, Mikelson explained, "we will go from one nutrient to another" and drive the people into food faddism and organic gardening.