bacteria discussed in this context are Clostridium botulinum, C. perfringens, Staphylococcu aureus, Bacillus cereus, and Vibrio parahemolyticus. The possible roles of the enterococc Proteus, E. coli and of unknown species, in relation to production of non-antigenic toxic sub stances, are discussed briefly. Requirements for prevention of the various forms of bacter food poisoning are outlined. There are 76 references. -- Author's abst.

458 Radionuclides in Foods. P.M. Bird. Can. Med. Assn. J. 94, 590-597 (March 19, 1966).

Levels of strontium-90 and cesium-137 in Canadian milk during the period 1960-64 were con sistently higher than those in the United States or the United Kingdom, but levels in humans, also higher, did not reflect the differences observed in milk. Annual dose rates of 27 millir to bone and four millirads to the whole body correspond to the highest average concentration strontium-90 and cesium-137 so far observed. Levels of cesium-137 in the urine of residen the Canadian North were found to increase with the increasing consumption of caribou or rei: Whole body counting of a few northern residents showed cesium-137 levels as high as 1,000 nanocuries. It is condluded that protective actions are not needed but that studies in the Nor should be emphasized to provide a better basis for evaluating that particular situation. Ten erences are given. -- Author's abst.

459 Problems Related to the Use of Pesticides. O.G. Fitzhugh. Can. Med. Assn. J. 94, 598-604 (March 19, 1966).

Potentiation and additive effects of pesticides are considered major problems in the determi of safe daily intakes of these chemicals. Examples of potentiation between two organophosph such as ethyl-p-nitrophenyl benzene thionophosphonate (EPN) and malathion, delnav and mal and guthion and dipterex are considered. Although this type of potentiation could give rise to accidents, the most important point in evaluation centers on the possible effects of small am of potentiating compounds in the daily diet. Likewise, certain drugs of the phenothiazine typ potentiate the toxic effects of organophosphates. A review of the data for both types of poten indicates that the consumption of raw agricultural products containing pesticides at tolerance constitutes a minimal hazard. A two-year rat-feeding investigation using a combination of e flavoring agents and six pesticides, at use levels and higher, did not cause a significant alte of toxicity in comparison with the toxicity of the individual substances. There are 30 refere: -- Author's abst.

460 Problems Related to the Use of Food Additives in the United States. B.L. Oser. Can. Med. Assn. J. 94, 604-608 (March 19, 1966).

Major problems encountered by enforcement agencies and by regulated industries, respectiv in implementing and conforming to recent food additive laws are reviewed. Decisions as to v substances fall within the broad terms of the legal definition, and which escape by virtue of " erally recognized as safe" (GRAS) status, are often difficult and complex. Distinctions cann be made solely on the basis of whether substances are old or new, natural or synthetic. Reg tion of pesticides on a "no residue" basis and establishment of "zero tolerances" for food adc have created an anomalous situation as a result of improvements in sensitivity of analytical t niques which revealed the presence of minute amounts of substances where none were believe exist. A solution has been recommended by a specially appointed committee of the National Academy of Sciences—National Research Council (USA). Enforcement of the new food additi laws warrants revision of present labeling requirements to provide for designating chemical gredients by functional categories rather than by confusing chemical terminology. Ten refer are given. -- Author's abst.

461 The Detection of Polycyclic Aromatic Hydrocarbons in Liquid Smoke and Some Foods. W. Likinsky and P. Shubik. Toxicol. & Pharmacol. 7, 337-343 (March 1965).

Samples of liquid smoke, several smoked foods, vegetable oils, and drinking water were exa for the presence of polycyclic aromatic hydrocarbons. Fats and oils were studied because of earlier finding that solvents—which are used in processing fats and oils—have been found to tain the hydrocarbons. Samples of tap water in Chicago were examined in order to explore t possibility that polycyclic aromatic hydrocarbons occurring in air pollution, were falling into Michigan in the area from which the water supply for the city was taken. In the study the aro materials were concentrated by extraction and solvent partition, the polycyclic aromatic hyd carbons were separated by chromatography and identified and estimated by absorption spectr metry. Polycyclic aromatic hydrocarbons were found to be absent from the drinking water a vegetable oils but were present in bacon, smoked salmon, smoked haddock, and liquid smoke concentrations of the order of ppb. Traces of the carcinogen benzo(a)pyrene were present in smoked salmon and smoked haddock but no carcinogens were detected in bacon or in the two s of liquid smoke examined. -- APCA Abst