

TMR INC.

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Advances in Nutritional Research, Volume 1, edited by Harold H. Draper (Plenum Press, New York, 1977, 344 p., \$27.50).

The appearance of this first volume edited by Draper indicates that this new series is off to an excellent start. In soliciting the chapters, the editors have kept their promise to provide us not only with authoritative information on research topics of active current investigation, but also with reviews on research subjects characterized by progressive, if unspectacular, developments over several years.

The volume starts with an account by J.W. Suttie of the rapid advances in our understanding of the role of vitamin K in the synthesis of blood clotting factors. This is followed by a chapter on the metabolic significance of dietary chromium by C.T. Gürson. Here the author gives an in depth treatment of the absorption, deposition, excretion, and mode of action of this trace mineral and discusses its significance in protein-energy malnutrition, diabetes mellitus, pregnancy, and aging. The next two chapters make excellent companions. First, S. Waxman, C. Schreiber, and M. Rubinoff discuss the significance of folate binding proteins in folate metabolism, and then N. Colman reviews the major causative factors of folate deficiency in humans and its treatment and prevention.

Next, there are chapters on two subjects of great current interest, namely, the metabolic and nutritional consequences of infection and the regulation of protein intake by plasma amino acids. In the first, W.R. Beisel gives a concise account of the complex interactions between malnutrition and infection in which he emphasizes the more recent information concerning the metabolic responses beginning shortly after microbial invasion of the host and the nutritional responses during fever. In the second, G.H. Anderson presents evidence for his proposal that, by altering concen-

trations of neurotransmitters in the brain, dietary amino acids influence feeding behavior with respect to both protein and energy.

Authors from the same laboratory provide chapters in the trace mineral area. G.W. Evans discusses metabolic disorders of copper metabolism including those arising from unknown errors of metabolism within the copper homeostatic system, such as Menke's steely hair syndrome and Wilson's disease. Later, L.M. Klevay, in a discussion of the role of copper and zinc in cholesterol metabolism, presents support for his new hypothesis regarding the etiology of the ischemic heart disease. Sandwiched between these chapters, L.A. Witting provides a lucid account of the proposed interrelationships between free-radical production, initiation of adventitious reactions and the involvement of nutritional factors in the control mechanisms which operate to prevent or minimize damage to tissues.

Another topic of great current concern, the relationship between nutrition and aging, is reviewed by C.H. Barrows and G.C. Kokkonen. Here the authors discuss pertinent literature on the effect of age on nutritional requirements and the effect of nutrition on lifespan. Finally, D.H. Baker reviews the amino acid nutrition of the chick in which he gives the history of the development of amino acid reference diets for the chick and the present state of knowledge. Baker includes an excellent account of problems associated with crystalline amino acid reference diets and of methionine toxicity.

There is plenty here for all those interested in advances in nutritional science. The quality of articles is high, and by present standards the price of this excellent volume is very reasonable.

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The Food Protein Council and Central Soya have asked that soy protein isolates be classed as generally recognized as safe at current levels of use or at levels reasonably foreseen, Food Chemical News reported Oct. 26. The FASEB's Select Committee had previously said additional studies were needed on nitrite in soy protein isolates. The new request would call for a revision in its report by the FASEB committee.

The FDA has set July 1, 1981, as the mandatory uniform effective date for food labeling regulations issued after Sept. 29, 1978. Final regulations published before that date have an effective date of July 1, 1979. Details: Federal Register, Friday, Sept. 29, 1978, p. 44830.

The Environmental Protection Agency has established a residue tolerance of 0.5 parts per million for the insecticide methidathion on safflower seed. The ruling had been sought by the Interregional Research Project No. 4 at Rutgers University. Details: Federal Register, Friday, Sept. 29, 1978, p. 44844.

FDA published its good manufacturing practices for human and veterinary drugs on Sept. 29. The FDA also proposed certain exemptions for over-the-counter drugs that are also used as foods (to be covered by food GMPs) or are sold without dosage limits. Details: Federal Register, Friday, Sept. 29, 1978, pp. 45014, 45088.

The Environmental Protection Agency has approved a 0.02 ppm tolerance for the pesticide aldicarb on soybeans. The tolerance was requested by Union Carbide Corp., which produces the insecticide and nematocide. Details: Federal Register, Tuesday, Oct. 17, 1978, p. 47729.

The FDA has said that objections to permitting use of roasted or cooked, glandless cottonseed kernels in baked goods, candy or snack foods are not of sufficient merit to bar such use or amend the pertinent regulations. The FDA regulations permitting such use originally were published in 1976; the FDA's latest comments were in response to the objections. A complaint from the National Cottonseed Products Association about pesticide rules in the original regulations has been resolved. Details: Federal Register, Tuesday, Sept. 26, 1978, p. 43556.

The U.S. Department of Energy has begun a series of industrial energy conservation workshops around the nation aimed at improving the department's monitoring of industry's effort to improve energy efficiency through energy conservation and consumption reports filed with the department. The workshops are open to the public; agendas and further information for each workshop may be obtained from O. Cleveland Laird, Jr., DOE, 666 11th St. NW, Room 735, Washington, DC 20001 (202-724-3456) at least ten days before the workshop. Dates and places: Dec. 14-15, Sheraton Biltmore Hotel, Atlanta, GA; Jan. 4-5, Sheraton Houston Hotel, Houston, TX; Jan. 25-26, Sheraton Plaza Hotel, Chicago; Feb. 12-13, New York Sheraton Hotel, New York City; Feb. 22-23, Sheraton Palace Hotel, San Francisco. Details: Federal Register, Thursday, Oct. 19, 1978, p. 48682.

The Food and Drug Administration has amended its standards of identity for bakery products to remove limitations on use of mono- and diglycerides of fat-forming fatty acids, diacetyl tartaric acid esters of mono- and diglycerides of fat-forming fatty acids, propylene glycol mono- and diesters of fat-forming fatty acids and similar ingredients. FDA said technical considerations make it unlikely that excessive amounts would be used. Details: Federal Register, Friday, Oct. 13, 1978, p. 47177. ●

Committee Spotlights

Hydrogenated Oils Subcommittee

Action taken by the Hydrogenated Oils Subcommittee in 1978 included:

Submission to William Link, editor of Analytical Methods, of a minor revision of the procedure No. Ca 17-76, "Activity of Hydrogenation Catalysts," was made to incorporate metric measures.

The preparation and review of a procedure for determining the selectivity of a catalyst was undertaken. The procedure contained a computer program provided by the Northern Regional Research Center of the Department of Agriculture. Since it was decided that the method should also include a means for graphical presentation of the data, if a computer is not available, additions are currently being made in method. It is expected that following circulation to the committee members of the revised procedure, approval will be forthcoming for a recommendation next spring to add the method to the AOCs Methods Book in the Recommended Practices Section.

The nominal value of the nickel content of the Standard Catalyst was established by a small collaborative study to be 26%.

Investigation and potential incorporation into one method is planned for both a gravimetric and a spectro-

photometric measurement for establishing the filterability of a catalyst. The gravimetric procedure will permit the use of the procedure in less technologically equipped laboratories. Completion of this study is scheduled for next summer.

The present membership of the Hydrogenated Oils Subcommittee is as follows: A.E. Walkling, chairman; R.R. Allen, H. Basu, R.A. Becker, E.W. Black, J.P. Duffy, E.N. Gerhardt, R.C. Hastert, S. Koritala, J. McNaught, F.C. Naughton, A. Petropoulos, B.F. Szuhaj, J.R. Taylor, R.J. Zielinski.

Arthur E. Walkling
Subcommittee Chairman ●

CPI up? Don't blame fats and oils

Fats and oils in home-cooked meals comprise a relatively small part of the food costs that go into computing the U.S. Department of Labor's consumer price index (CPI) each month.

Expenditures for all foods — those eaten at home and those eaten elsewhere — total 17.7 per cent. About 30 per cent of food costs are for foods outside the home. Foods eaten at home total 12.235 per cent of the consumer price index; fats and oils are 2.94 per cent of that 12.235 per cent, or 0.360 per cent of the total consumer price index, according to reports from the U.S. Department of Agriculture.

Thus, a 10 per cent increase in the cost of fats and oils foods pushes the overall consumer price index up about 0.04 per cent. Figures are not available on what contribution fats and oils provide in the cost of foods eaten outside the home.

Since 1967, the average change in retail food prices for fats and oils foods has approximately doubled. Margarine that cost 28 cents a pound in 1967 now costs between 50 and 60 cents a pound. That increase in fats and oils prices has pushed up the consumer price index about three-fourths of one per cent.

The largest single item in the consumer price index is shelter, which accounts for 29.2 per cent of the total; transportation is second at 18.0 per cent; food is third at 17.7. Other lesser ranking factors include health, education and clothing.

While retail food prices rose about 76.8 per cent in the United States between 1970 and March 1978, they were rising faster in Canada, 99.4 per cent; Australia, 103.3; France, 109.1; Sweden, 111; Denmark, 116; Japan, 118.5; Greece, 180.4; Italy, 180.5; Spain, 195.7, and the United Kingdom, 203.2. Countries with lower increases in food prices included Belgium, 76 percent; Germany, 45.5; Switzerland, 44.8; and The Netherlands, 16.3. ●

TABLE I

Relative Importance of Food Groups in the Consumer Price Index, December 1977^a

Consumer Price Index — All Urban		
		Percent
Food	17.718	
Food at home	12.235	100.00
Cereals and bakery products	1.530	12.51
Meats, poultry, fish and eggs	3.943	32.22
Dairy products	1.654	13.52
Fruits and vegetables	1.759	14.38
Sugars and sweets	0.435	3.56
Fats and oils	0.360	2.94
Nonalcoholic beverages	1.513	12.36
Other prepared foods	1.041	8.51
Food away from home	5.483	

^aSource: U.S. Department of Labor, Bureau of Labor Statistics