

the placebo group. The possible mechanism of the hypolipidemic effect of dextran and other osmotic active compounds is discussed.

**METABOLISM OF VITAMINS D AND A.** H. F. DeLuca (Biochem. Dept., Univ. of Wisconsin, Madison 53706). *J. Agr. Food Chem.* 17, 778-784 (1969). Recent advances in the elucidation of the metabolism of vitamins A and D have been reviewed. Retinol and retinoic acid are metabolized to CO<sub>2</sub> and other excretion products by three pathways. Both *in vivo* and *in vitro* evidence has been obtained for all three. One pathway, traced to the microsomal fraction, involves oxidative decarboxylation of the terminal carbon to CO<sub>2</sub> with TPNH and O<sub>2</sub> as requirements. Vitamin D is metabolized to 11 metabolites, which are readily separated on silicic acid columns. An ester of vitamin D with long chain fatty acids represents one metabolite fraction. Quantitatively most important is another metabolite which has been isolated and identified as 25-hydroxycholecalciferol. It probably represents the metabolically active form of vitamin D. Other metabolites are as yet unidentified.

**N-ACYLPHOSPHATIDYLETHANOLAMINE, A PHOSPHOLIPID THAT IS RAPIDLY METABOLIZED DURING THE EARLY GERMINATION OF PEA SEEDS.** R. M. C. Dawson, N. Clarke and R. H. Quarles (Dept. of Biochem., Agr. Res. Council Inst. of Animal Physiol., Babraham, Cambridge). *Biochem. J.* 114, 265-270 (1969). A phospholipid that rapidly disappears from pea seeds during the early stages of germination has been isolated and shown to be N-acylphosphatidylethanolamine. Chromatographic evidence for the presence of the same phospholipid in oats, soya beans and spring (tick) beans has been obtained, and its loss during early germination measured. A scheme for the step-wise degradation of the phospholipid with alkali and acid is presented.

**METABOLIZABLE ENERGY AND PROTEIN AND FAT DIGESTIBILITY EVALUATIONS OF FISH SOLUBLES IN DIETS OF YOUNG TURKEYS.** A. B. Chu and L. M. Potter (Dept. of Poultry Sci., Virginia Polytech. Inst., Blacksburg, Va. 24061). *Poultry Sci.* 48, 1169-74 (1969). Two experiments were conducted to determine the digestibility of the protein and fat, and the me-

tabolizable energy value of fish solubles. Lyophilized fish solubles was added to a basal ration at 0, 5, 10, 15 and 20 percent on a dry matter basis. From the two experiments, the determined coefficients of digestibility of the protein were 65.9 and 68.4 percent, and of the fat were 96.5 and 98.9 percent, and the determined metabolizable energy values were  $3.967 \pm .711$  and  $4.351 \pm 0.348$  kilocalories per gram of dry matter.

**PHENOLSULFOTRANSFERASE IN THE DEVELOPING RAT.** J. Carroll (Biochem., Trinity College, Dublin 2, Ireland). *Am. J. Clin. Nutr.* 22, 978-985 (1969). From this study emerges some indication of the multiplicity of variables that must be defined before kinetic studies on phenolsulfotransferase, reported by various laboratories, can be compared. The age of the tissue preparation, together with its concentration, influences the activity of the natural inhibitor. In addition, dilution of the enzyme favors its disaggregation, which may in turn influence its reactivity. The low concentration of phenolsulfotransferase in embryonic rat liver probably accounts for its apparently small particle size on gel filtration. The results of this study do not support the view that vitamin A has a direct coenzymic role in the phenolsulfotransferase reaction. The decreased enzymic activity associated with vitamin A deficiency is more likely to be the result of impaired cellular activity caused by the malnutrition.

**STUDY OF THE LOW-FAT MILK PHENOMENON IN COWS GRAZING PEARL MILLET PASTURES.** H. F. Bucholtz, C. L. Davis, D. L. Palmquist and K. A. Kendall (Dept. of Dairy Sci., U. of Illinois, Urbana 61801). *J. Dairy Sci.* 52, 1388-1394 (1969). Two trials were conducted in an effort to elucidate the factor(s) responsible for the depression in fat test when cows are allowed to graze pearl millet pasture. Comparisons between Sudan grass and pearl millet with respect to chemical composition of the plant materials as well as animal performance were made. The results revealed no significant difference in the cell-wall constituents and lipid composition of the two plant materials; however, the oxalic acid content of the pearl millet plant material was significantly higher

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## Call for Nominations for Seventh AOCS \$2,500 Award in Lipid Chemistry

### Sponsored by Applied Science Laboratories

In April 1964 the Governing Board of the American Oil Chemists' Society established an Award in Lipid Chemistry under the sponsorship of the Applied Science Laboratories Inc., State College, Pennsylvania. Previous awards were presented as follows: Erich Baer, August 1964; Ernest Klenk, October 1965; H. E. Carter, October 1966; Sune Bergstrom, October 1967; Daniel Swern, October 1968 and H. J. Dutton, October 1969.

The award consists of \$2,500 accompanied by an appropriate certificate. It is now planned that the seventh award will be presented at the AOCS Fall Meeting in Chicago, Illinois, Sept. 27-Oct. 1, 1970.

### Canvassing Committee Appointees

Policies and procedures governing the selection of award winners have been set forth by the AOCS Governing Board. An Award Nomination Canvassing Committee has been appointed. Its membership is L. N. Norcia, Chairman; J. G. Coniglio, Morris Kates, J. C. Hamilton and F. T. Lindgren. The function of this committee is to solicit nominations for the seventh award. Selection of the award winner will be made by the Award Committee whose membership will remain anonymous.

### Rules

The rules prescribe that nominees shall have been responsible for the accomplishment of original re-

search in lipid chemistry and must have presented the results thereof through publication of technical papers of high quality. Preference will be given to individuals who are actively associated with research in lipid chemistry and who have made fundamental discoveries that affect a large segment of the lipid field. For award purposes, the term "lipid chemistry" is considered to embrace all aspects of the chemistry and biochemistry of fatty acids, of naturally occurring and synthetic compounds and derivatives of fatty acids, and of compounds that are related to fatty acids metabolically, or occur naturally in close association with fatty acids or derivatives thereof. The award will be made without regard for national origin, race, color, creed or sex.

Letters of nomination together with supporting documents must be submitted in octuplicate to L. N. Norcia, Temple University, Health Science Center, School of Medicine, Philadelphia, Pennsylvania 19140, before the deadline date of April 15, 1970. The supporting documents shall consist of professional biographical data, including a summary of the nominee's research accomplishments, a list of his publications, the degrees he holds, together with the names of the granting institutions, and the positions held during his professional career. There is no requirement that either the nominator or the nominee be a member of the American Oil Chemists' Society.

Remember the DEADLINE, April 15, 1970