

Northern California Section

The Northern California Section of the AOCS held its first meeting of the year on Friday, May 8, 1970, at the Claremont Hotel in Berkeley, Calif. After dinner, the attending members and guests heard a very interesting speech by H. C. Knapp about Ecology in the San Francisco Bay Area. Of particular interest was the Procter-Cologne Water Quality Control Act, which was adopted by the State of California and which took effect on Jan. 1, 1970.

Mr. Knapp has been Senior Engineer with the San Francisco Bay Regional Quality Control Board since 1945. His prior experience has been with the Central Valley, Colorado River Basin, and the North Coastal Regional Water Quality Research Boards. He was also Research Engineer with Richmond Laboratory of the California (now Chevron) Research Corporation and Research Engineer with Jackson Laboratory of E. I. duPont de Nemours & Company.

Mr. Knapp is a member of the American Institute of Chemical Engineers, the American Chemical Society and the Water Pollution Control Federation.

As usual, the Northern California Section was pleased and honored to have Mr. and Mrs. G. C. Cavanagh attend this meeting.

Mr. F. E. Sullivan, Chairman of the Section was the photographer at the meeting, and we thank him for his excellent photography.



Left to right: M. H. Abed, Secretary of AOCS North California Section; H. C. Knapp, speaker of evening; and Bob Hood, Industrial Manager, De Laval Separator Co.



Left to right: Ed Henry, Manager, Brookside Division, Safeway Stores; G. C. Cavanagh, AOCS Past President.

**INFLUENCE OF DIETHYLSTILBESTROL ON THE TURKEY WITH SPECIAL REFERENCE TO HISTOLOGICAL CHANGES IN THE AORTA.** L. M. Krista, J. H. Sautter and P. E. Waibel. *Ibid.*, 1961-68. Physiological and metabolic changes were induced by DES treatment. Even though distinct morphological differences are hard to establish, the levels of DES could be related to changes in bodyweight, blood pressure, carcass composition, general conformation and secondary sex characteristics. The lowest level of DES did not influence bodyweight, blood pressure or aortic rupture, but an increase in body fat and liver size was observed. The medium level of DES resulted in a significant reduction in weight gain at 12 weeks of age, a significant decrease in blood pressure at eight weeks of age and a significant increase in aortic rupture, plaque formation, and degeneration. The highest level of DES had an obvious toxic effect on the birds as indicated by debilitated appearance and depressed weight gains by six weeks of age.

**PHOSPHOLIPIDS: LOCALIZATION IN SURFACE MEMBRANES OF TETRAHYMENA.** K. E. Kennedy and G. A. Thompson, Jr. (Dept. of Botany, Univ. of Texas, Austin, Tex. 78712). *Science* 168, 989-91 (1970). Approximately 60% of the phospholipids from the membrane sheath of *Tetrahymena pyriformis* cilia contain 2-aminoethylphosphonic acid. This is more than twice the concentration found in total cell lipids. The resistance of these lipids to hydrolytic enzymes suggests that they increase the stability of the surface membranes.

**EFFECT OF TEMPERATURE ACCLIMATIZATION ON THE FATTY ACID COMPOSITION OF GOLDFISH INTESTINAL LIPIDS.** P. Kemp and M. W. Smith (Depts. Biochem. and Physiol., Agr. Res. Council. Inst. Anim. Physiol., Babraham, Cambridge, U.K.). *Biochem. J.* 117, 9-15 (1970). The fatty acid composition of whole goldfish whole intestinal mucosa, intestinal mucosal membranes and individual phospholipids extracted from mucosal membranes were measured; fish adapted to different temperatures being used. Alterations of the adaption temperature did not noticeably affect the fatty acid composition of the whole-fish lipids, but there were marked changes in the fatty acids extracted from homogenates of goldfish intestinal mucosa. These changes were more pronounced in a membrane fraction prepared by these homogenates.

**EFFECTS OF STARVATION OF THE FATTY ACID COMPOSITION OF ADIPOSE TISSUE AND PLASMA LIPIDS OF SHEEP.** H. D. Jackson and V. W. Winkler (Physiol. and Pharmacol., Purdue Univ., Dept. of Biochem. and Dept. Veterin., Lafayette, Ind. 47907). *J. Nutr.* 100, 201-07 (1970). Six mature ewes were fasted for 24 days to study the effect of prolonged fasting on the fatty acid composition of subcutaneous adipose tissue, plasma nonesterified fatty acids (NEFA) and plasma neutral lipids. Tissue and blood samples were collected every 2 days throughout the fast. The apparent rate of fatty acid mobilization from adipose tissue during the first four days of the fast was greater for palmitate than for oleate and stearate. From days 4 through 8 the percentage of oleate in adipose tissue increased and that of stearate decreased. These two fatty acids then remained essentially constant through day 14; however, the percentage of palmitate in adipose tissue decreased steadily from day 0 through day 14. While myristate, palmitoleate and linoleate were present only at low levels in adipose tissue, these and the three major fatty acids mentioned above were all readily mobilized during the prolonged fast.

**EFFECT OF KIDNEY BEANS, WEIGHT GAINS AND UNSATURATED FAT ON INCIDENCE OF LIVER NECROSIS IN RATS.** H. F. Hintz and D. E. Hogue (Dept. of Animal Sci., Cornell Univ., Ithaca, N.Y. 14850). *Proc. Soc. Exp. Biol. Med.* 133, 931-33 (1970). Liver necrosis of rats fed a torula yeast diet can be prevented by the addition of vitamin E or selenium. Kidney beans have been reported to influence the vitamin E nutrition of sheep and chickens, but the effect of beans on liver necrosis in rats has not been reported. However, raw kidney beans reduce feed intake of rats and Naftalin reported that food restriction decreased the incidence of liver necrosis in rats fed a vitamin E deficient casein diet. These trials were conducted to determine the effect of kidney beans or food restriction on the incidence of liver necrosis in rats fed torula yeast diets.

**EFFECT OF LOW TEMPERATURE ON FATTY ACID BIOSYNTHESIS IN SEEDS.** P. Harris and A. T. James (Unilever Res. Lab., Colworth House, Sharnbrook, Bedfordshire, Great Britain). *Biochim. Biophys. Acta* 187, 13-18 (1969). By studying the effect of the incubation temperature on the formation of unsaturated fatty acids from acetate-2-<sup>14</sup>C in flax, sunflower

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