ABSTRACTS

Kapok Oil. (Bull. Imp. Inst. 1926, 24, 18-36). Kapok seed from Travancore, Federated Malay States, Gold Coast and Zanzibar varied in its oil content from 27.4 per cent on the dry seed for Travancore to 21.6 per cent for F. M. S. The oils had the following characteristics: Sp. gr. at 15°C. (T) 0.9217, (G. C.) 0.9226, (Z) 0.914; acid value, (T) 30.9, (F. M. S.) 54.1, and 61.10 (G. C.) 6.1, (Z) 26.0; saponification value, (T) 192.2, (G. C.) 193.5, (Z) 194.1; iodine value, Hubl. 17 hours, (T) 90.4, (G. C.) 89.6, (Z) 101.5; and for Travancore oil unsaponifiable matter, 1.2 per cent, $n\ {}^{40°}_{D}$ 1. 463; and "titer," 29.8°C. The meal from Travancore seed closely resembled commercial kapok cake but contained proportionately more (about 4 per cent) protein.—D. G. H.

Unsaturated Fatty Acids Associated with Corn Starch. Taylor and L. Lehrman. (J. Amer. Chem. Soc. 1926, 48, 1739-1743). Corn starch (a-amylose), completely freed from extraneous fat by means of ordinary solvents, yields, on hydrolysis with acids, 0.5 to 0.6 per cent of fatty acids, which consist of approximately 24 per cent of palmitic, 40 per cent of oleic, and 36 per cent of linolic acid.—T. H. P.

Influence of Fatty Acids on Bomer's Melting-Point Method. F. J. F. Muschter and R. Smid. (Chem. Weekblad, 1926, 23, 284-285) Bomer's differential melting-point method (Analyst, 1913, 38, 204, 214; 1914, 39, 84, 171) gives fallacious results if applied to lards containing free fatty acids (in excess, 0.3 per cent of free oleic acid). For instance, a neutral fat showing a Bomer value of 70, gave a value of 71.5 when mixed with 2.5 per cent of stearic acid, and of 72.0 when mixed with 5 per cent of palmitic acid. Again, a grease with a Bomer value of over 71 gave, after removal of free fatty acids, a value below 71, and was therefore adulterated.

Free Acids of Edible Oils (Olive Oil). A. Ceriotti and A. Sanguinetti (Rev. Fac. Cien. Quim., 1925, 3, 65-75). Data are given for the free acid content, expressed as oleic acid, of samples of olive oil from different countries. Since free acidity greater than 1.5 per cent is only shown in a few cases, it is recommended that this figure should be adopted as the legal maximum.—G. W. Robinson.

Determination of the Titer of Tallow. J. Davidsohn (Z. Deuts. Oel-u. Fett-Ind., 1926, 46, 353-354).—The effect of varying the conditions in the Dalican method of determining the titer (solidif. point of insoluble fatty acids) of tallow was determined. A particular tallow gave the following results: (a) without stirring, titer 43.50° and 43.40°; (b) stirring three times to the right and three times to the left after solidification started, 43.48° and 43.40°; (c) stirring from the start until solidification commenced, 44.20°. It is recommended to omit the use of alcoholic potash for the saponification, which can be effected by heating the fat and aqueous alkali on a water bath, and then keeping the mixture at 100-105° for 1½ hrs. This is much safer than the alcoholic alkali saponification, as there is no risk of ester formation from traces of alcohl left in the mixture. In the case of the above tallow, when the alcohol was not completely removed after saponification with alcoholic alkali a titer of (a) 39.90°; (b) 40.82°, and (c) 40.75° under the conditions mentioned was observed. It is stated that the latent heat fusion of the fatty acids decreases with repeated reheating and finally neither rise nor stationary point is observed in the test; in such cases a fresh sample must be taken.

New Fatty Acids in Shark Liver Oil. Fatty Acids of Shark and Ray Liver Oils. J. M. Tsujimoto (z. Deuts. Oel-u. Fett-Ind., 1926, 46, 385-388)—The fatty acids from two species of red shark were examined, and two new fatty acids were isolated, viz., selachoceric acid, $C_{24}H_{48}O_2$, white crystals, m.p. 78°, and selacholeic acid, $C_{24}H_{46}O_2$, white crystals, m.p. 42.5—43°. The latter when hydrogenated gave a saturated acid isoselachoceric acid, m.p. about 82°. By treating selacholeic acid with nitrous acid, a stereoisomeride, selachelaidic acid, m.p. 60.5°, was produced.

MAKING SHARK LIVER OIL

The Alaskan Glacier Sea Food company, Petersburg, Alaska, has been experimenting with the production of shark liver oil with the idea of developing a new line of profit for the smaller halibut boats. These boats, says Earl N. Ohmer of this company, catch numbers of sharks in the course of halibut fishing, and it was felt that by opening a market for the livers they might have a source of income that would take care of part of their expenses. The method followed is to put the livers only in a vat and boil slowly with a steam coil submerged in the tank. One Petersburg boat owner has gone into shark fishing as a regular thing as a result of the experiment.

THE JOURNAL OF OIL AND FAT INDUSTRIES

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of Journal of Oil and Fat Industries, published monthly at New York, N. Y., for October 1, 1926

State of New York } ss.:
County of New York }

Before me, a Notary in and for the State and county aforesaid, personally appeared John T. Ogden, who, having been duly sworn according to law, deposes and says that he is the Editor of the Journal of Oil and Fat Industries, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Russell Palmer, 71 Columbia St., Seattle, Wash.; Editor, John T. Ogden, 220 West 42d St., New York City; Managing Editor, none; Business Manager, Russell Palmer, 71 Columbia St., Seattle, Wash.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Russell Palmer, 71 Columbia St., Seattle, Wash.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

JOHN T. OGDEN,
Editor.

Sworn to and subscribed before me this 27th day of September, 1926.

(Seal.) Johanna E. Schult,
Notary Public Queens County No. 2766.
Cert. filed in N. Y. Co. No. 1526, Reg. No. 8097a.
My commission expires March 30, 1928.