SPECIFICATIONS OF THE AMERICAN OIL CHEMISTS' SOCIETY FOR PRESSED OLIVE OIL AND OLIVE OIL FOOTS

Preamble:—As a result of the work of the Olive Oil Committee, headed by Mr. M. F. Lauro, dating from August, 1933, to May of this year, the following specifications are recommended by the Society for pressed olive oil and olive oil foots.

Specific Gravity at 25/25° C...0.909 to 0.915

Iodine Value (Wijs) .....80 to 88

Saponification Value .....188 to 196

Titer of the fatty acids .....17° to 26° C.

Crismer Turbidity Test .....68.5° to 71.5° C.

Unsaponifiable Matter (FAC).Maximum 1.4%

For Californian oils, the iodine value shall be 79 minimum.

For African (Tunisian, Algerian, Moroccan) and for Dalmatian oils, the iodine value shall be 92 as a maximum.

For all oils of edible grade, the free fatty acid content shall not be greater than 1.5% as oleic, and shall be clear, free from visible water and suspended matter, and possess the characteristic olive flavor.

In addition to the above tests, the Committee recommends such necessary and reliable tests as would establish freedom from foreign oils, as the Halphen for cottonseed oil, the Villavecchia for sesame oil and the Bellier for peanut oil, and prove the oil to be pressed and not solvent extracted. The oil shall contain no artificial or added coloring matter.

Olive Oil Foots

Iodine Value (Wijs) .....77 to 90

Saponification Value .....186 to 196

Titer of the fatty acids .....16° to 26° C.

Unsaponifiable matter (FAC).Maximum 2.3%

Ash .....Maximum 0.20% to consist chiefly of iron oxide and only traces of lime, etc.

Moisture and Impurities (ethyl ether insoluble).Maximum 3.00%

ABSTRACTS

Oils and Fats

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Studies on the rancidification of butter fat. N. N. Godbole and Sadgopal. *Z. Untersuch. Lebensm.* **72,** 35-45 (1936). Indian buffalo butter fat (ghee) was tested for stability against rancidification. Influence of light, air, moisture content, metals and rancid ghee on the stability and the characteristics are tabulated.

Aldehyde formation in purified fats. II. Heat and aldehyde formation. H. Schmalfuss, H. Werner and A. Gehrke. *Margarine-Ind.* **28,** 43-4 (1935); *Chem. Zentr.* **1935, II,** 1987.—The effect of heat on aldehyde formation in soybean oil, completely hydrogenated soybean oil (m. 62°), Me laurate, lauric acid and glycerol (all aldehyde-free) was investigated. The samples, sealed in glass tubes, were kept, some at room temps., some at 150°. While all the materials investigated showed rapid ketone formation, no *epihydrinaldehyde* (in combined form) was formed except after heating for 27 hrs. Glycerol, soybean oil and solid soybean fat showed no aldehyde formation; however, lauric acid and its Me ester reddened Schiff's reagent (according to Holde, *Kohlenwasserstoffe und Fette,* pp. 657) the more strongly the more they were heated. Glycerol showed aldehyde formation when exposed to the Hg lamp but not when heated at 150°. Epihydrinaldehyde formed in Me laurate when exposed to the Hg light but not when merely heated. *(Chem. Abs.)*

Babassu oil. Margaret J. Hausman. *Soap,* **12,** No. 9, 28-31. Monograph.

Report of Committee on Analysis of Commercial Fats and Oils, American Chemical Society. W. H. Irwin, R. W. Bailey, T. C. Law, C. P. Long, H. J. Morrison, M. L. Sheely, L. M. Tolman, H. P. Trevithick and J. J. Vollertsen. *Ind. Eng. Chem., Anal. Ed.* **8,** 233-7 (1936).—During the year the following subjects were studied and recommendations made for the adoption of several methods: (1) modified Wiley m.-p. method for fats and fat acids, (2) thiocyanogen method as modified and used in the Procter & Gamble labs., (3) modified Twitchell method for the sepn. of liquid and solid fat acids, and (4) detection of foreign fats contg. tristearin in unhydrogenated pork fats. Details of the methods are given. *(Chem. Abs.)*

The iodine number as a universal biological constant. The gravimetric determination of the iodine number by the absorption of bromine vapor. Hermann Wollschitt. *Arch. exptl. path. Pharmakol.* **179,** 260-5 (1935).—A weighed sample of the oil or fat is spread as a thin layer in the bottom of a glass container, or is spread on filter paper. Care is taken to remove the solvent completely before weighing. It is then exposed to Br vapor for 15 min. to 3 hrs., heated