

hydrogenated products. The composition of A and B were not definitely known, but apparently were also all hydrogenated. These

samples gave the following results when tested further:

TABLE No. 5

	A	B	C	D	E	F
Free Fatty Acids	0.07%	0.07%	0.06%	0.06%	0.18%	0.12%
Iodine Value	48.4	69.1	98.6	98.4	71.1	67.2
Iodine Value of the Crys. Glycerides.....	42.3	—	5.2	6.7	9.9	12.8
Melting Point (approx.)	—	—	43.5	45.0	—	—
Solid Acids	—	—	35.0	34.0	—	—
Iso-oleic Acids	—	—	2.5	3.0	14.38	8.53
Halphen Test	Trace	Neg.	Pos.	Pos.	Neg.	Neg.

Thus by the use of this test, it was proved conclusively that the sample of lard was pure lard, not containing any fats of vegetable origin, and this result could be obtained in a much shorter time, and with as much, if not more certainty, than could be given by the phytosterol acetate test.

Also this test demonstrates that the hydrogenated fats act as tallows under its conditions.

The method for this test is as follows:

"Dissolve 50 grams of the clear dry filtered fat in 50 cc of ether, cool to 15°C for one hour with occasional agitation. Filter off the crystals on a Buchner funnel with suction, pressing the crystals dry. Redissolve in 50 cc of ether again, and recrystallize as before. If these second crystals do not melt above 61°C, the crystallization is repeated a third time.

A portion of these crystals is saponified with caustic potash and alcohol, dissolved in 100 cc of water, acidified with dilute hydrochloric acid, and extracted in a separatory funnel with 50 cc of ether. This ether extract is washed twice with 10 cc of water, filtered into a dry beaker, evaporated to dryness, and heated in an oven at 105°C for 30 minutes.

The melting points of the glycerides and fatty acids are now determined in capillary tubes, placing one of each on each side of the thermometer, and heating in a water bath. Subtract the melting point of the fatty acids from that of the glycerides, double this difference and add it to the melting point of the glycer-

ides. This Bomer number should not be less than 71, but may run as high as 78 for leaf lard.

The following precautions must be observed: The glyceride crystals must not be melted prior to the determination of the melting point.

The fatty acids can be melted into the capillary tubes, however, but must be kept in a desiccator until the melting point is determined, as they will pick up ammonia very rapidly, forming soaps, and increasing in melting point considerably.

If the fat is rather liquid, the quantity of fat can be increased on the first crystallization, the time can be extended to two hours, the temperature can be lowered to 5°C, anhydrous acetone may be used, or a mixture of 3-4 parts of ether and 1 part of alcohol can be used, in order to get a sufficiently large first crop of crystals. Subsequent recrystallizations must be from ether."

Bibliography

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The Baltimore office of the Spencer Kellogg & Sons Sales Corporation, which is in charge of Alfred Day, has been moved to a new location on the eighth floor of the American building, where more space is available.

The Greek tobacco control office is endeavoring to promote the manufacture of the expressed oil from tobacco seed. The oil is said to be edible as well as useful as a soapstock, and the oil meal can be used as a cattle feed.

Correction

ON page 27 of *Oil & Fat Industries* for November, in the article entitled "Proposed Thiosulphate Number for Olive Oil" by Wallace H. Dickhart, the fourth column in the table of "Experimental Data" should be headed "Index of Refraction at 40° C." instead of "Valenta Index" as originally printed. The footnote exponent ¹ in the first column of the same table should have appeared one line lower, i.e., against the figures 5.28, instead of against 4.78, as printed.—Ed.