

ABSTRACTS

David Wesson, *Abstract Editor*

The bromine-iodine number is said to be a suitable test for distinguishing between extracted and expressed cacao butter. The test must be very carefully applied in the absence of light and at constant temperature. The saponification number is reported useful in detecting foreign fats in cacao butter. *Chem. Umschau Fette, O., W. H.* 36,377-80 (1929).

The rate of reduction of methylene blue in a fat or oil when catalyzed by light may serve as a measure of the rate of reaction of the initial oxidative processes and may therefore be utilized to determine the relative susceptibilities of fats and oils to oxidation. *J. Ind. Eng. Chem., Anal. Ed.* 2,9-10 (1930), *Chem. Abstr.* 1930, p. 1237.

A pale linseed oil is produced by bringing one ton of raw linseed oil to 212° F., adding fifteen pounds of manganese linoleate previously dissolved in thirty pounds of warm turpentine, then blowing and boiling for four hours at 220° F. A quick-drying bright oil is obtained by heating one hundred pounds of raw oil for four to five hours at 300° F. with three pounds for manganese resinate. *Ind. Chemist* 5,403-5 (1929).

The specific conductivities of various fatty acids have been determined by the mirror-galvanometer method with an instrument the sensitivity of which was 10⁸ amperes, inner resistance 23 ohms, 3x4 centimeter electrodes, 0.6 cm. distance. The results were tabulated and by expressing them in a formula it was found that the electric conductivity of all fatty acids is approximately alike at each of the two fundamental points, (melting pt. and boiling pt.) *Seifensieder-Ztg.* 56,345-7 (1929).

The mixture of alcohols obtainable from wool fat may be separated by extraction with methyl alcohol and subsequent extraction with a mixture of an ester and an alcohol. The waxy residue, when dissolved in and reprecipitated from the same alcohol-ester solvent, yields a pure hydroxycholesterol. Ger. Pat. No. 485,198.

Free fatty acids in oils and fats are neutralized under pressure and heat with an alkylene oxide such as ethylene or propylene oxide, with or without a catalyst. The products may be esterified. Brit. Pat. No. 312,523.

The crude fatty acids of whale oil or fish oil may be bleached by dissolving in a volatile solvent and treating with strong sulfuric acid for such a time and at such a temperature that a small proportion of sulfonated acids is produced. Any undissolved material is separated from the solution of fatty acids and the volatile solvent is expelled. U. S. Pat. No. 1,740,012.

Animal or vegetable oils may be refined as follows: the oil or fat to be purified is treated with a solvent such as benzene or trichlorethylene and the mixture is subjected to the action of an aqueous alcoholic ammonia solution; the product thus formed is further mixed (preferably while warm), with about one per cent of sodium sulphate previously dissolved in ten times its quantity of aqueous alcoholic ammonia solution. The products form into layers on standing and may be readily separated. U. S. Pat. No. 1,729,809.

Recently patented cleansing compositions are prepared by treating the polymerization products of drying or semi-drying oils with the sulfonation products of naphtha or similar mineral oils. Ger. Pat. No. 484,129.

Soap described as a good dry-cleaning soap gave the following analysis:

Total fatty matter 82.4%
Total alkalis (K₂O) 12.4%
Free fatty matter 2.1% (Oleic acid)
Volatile 0.1% (Alcohol)
Water 3.0%

The soap was found to be entirely soluble in naphtha, benzol and methanol and to give a perfectly clear, bright yellow solution in naphtha or benzol. Such dry-cleaning soaps are generally prepared by potash saponification of double distilled oleic acid, using the cold process. *Brit. Soap Man.* 6, No. 62 3-6 (1930).

Shortening and Oil Prices

Prices of shortening and salad and cooking oils on Thursday, Mar. 20, 1930, based on sales made by member companies of the Shortening and Oil Division of the National Cottonseed Products Association, were as follows:

<i>Shortening</i>	
North and Northeast:	
Carlots, 26,000 lbs.	Per lb. @10 $\frac{3}{4}$
3,500 lbs. and up	@11
Less than 3,500 lbs.	@11 $\frac{1}{2}$
Southeast:	
3,500 lbs.	@10 $\frac{1}{2}$
Less than 3,500 lbs.	@11
Southwest:	
Carlots, 26,000 lbs.	@10 $\frac{1}{2}$
10,000 lbs. and up	@10 $\frac{5}{8}$
Less than 10,000 lbs.	@11 $\frac{1}{8}$
Pacific Coast:	@11 $\frac{1}{4}$
<i>Salad Oil</i>	
North and Northeast:	
Carlots, 26,000 lbs.	@10 $\frac{1}{2}$
5 bbls. and up	@10 $\frac{3}{4}$
1 to 4 bbls.	@11 $\frac{1}{4}$
South:	
Carlots, 26,000 lbs.	@10
Less than carlots	@10 $\frac{3}{4}$
Pacific Coast:	@10 $\frac{3}{8}$
<i>Cooking Oil—White</i>	
$\frac{1}{8}$ c per lb. less than salad oil.	
<i>Cooking Oil—Yellow</i>	
$\frac{1}{4}$ c per lb. less than salad oil.	

Wesson Addresses Chemical Society

David Wesson will address the Section on Chemical Education of the American Chemical Society at the Annual Fall Meeting, to be held in Atlanta during the second week in April. The subject of Dr. Wesson's address will be "The Cotton Crop and Food Supply." The address will be illustrated with motion pictures and the speaker will exhibit samples of meat substitute prepared from cottonseed. The samples will include sandwiches prepared from the new cottonseed "meat" product, so flavored as to be indistinguishable from ham sandwiches.

A Correction

In the March Issue of *Oil & Fat Industries*, it was reported that J. D. O'Keefe had been elected President of Wesson Oil and Snowdrift Co. We are now advised that our correspondent was in error and that Mr. O'Keefe was elected a member of the Board of Directors of the company, Mr. A. D. Geoghegan remaining in the Presidency, as heretofore.

Archer-Daniels-Midland Company reports for the quarter ended November 30 a net profit of \$458,165, equal, after preferred dividends, to 71 cents a share on the common stock outstanding.

P. H. Manire, of the Marshall Cotton Oil Company, Marshall, Texas, has been named as chairman of the trade practice committee of fertilizer manufacturers in the eighth district of the National Fertilizer Association.

Fiji Islands Copra — 1929

A report from Consul Roberts at Suva, Fiji Islands states that exports of copra for the year 1929 amounted to 33,226 tons valued at \$2,744,599 as compared with 27,947 tons valued at \$2,760,542 exported during 1928. Coconuts are now coming into bearing on the island of Vitilevu—a region once completely overrun by the Levuama moth. The coconut industry is now reviving and there should be an increasing output of copra from year to year as new plantations and new areas come into bearing.

Probably the coconut planters of Fiji suffered the heaviest damage during the December hurricane. Estimates of the damage vary from 20 to 35 per cent of the 1930 production. All the planters report little damage to the trees. The wind bruised the young nuts and twisted the stems—the result of which will be that the young nuts will drop off the tree before maturing. On Taveuni, one planter estimates the total loss for the next two years to be from 30 to 35 per cent. One of the leading copra exporters after making a survey of the copra producing regions of the Fiji Islands estimated the loss to the industry at about 20 per cent of the normal production or 6,000 tons of copra during the year 1930. Throughout the last quarter of 1929 low prices prevailed in Fiji and the world's markets for copra. The high price for copra quoted in Levuka the principal shipping port of copra in the Fiji Islands was £15-0-0 per ton while the low price quoted was £14-0-0.

A report from Trade Commissioner Carlson at Oslo, Norway, dated March 1, 1930 states that another sale of whale oil for the season of 1930-31 brought the total sold to date up to three-fourths of the estimated total production of 2,200,000 barrels. The price was the same as reported for previous sales, £25 sterling per ton for best quality oil.

Prices

Candles, adamantine 6s 16 oz.					
20-set casesset.	.14½	.15¾			
40-set casesset.	.14	.14½			
Candles, paraffin, cs., 14 oz., case of					
40 setsset.	.10	.10¼			
6s 14 oz., case of six cartons containing					
36 setsset.	.11	.11¾			
6s 12 oz., 40 set casesset.	.09	.09¾			
6s 12 oz. cases of six cartons containing					
36 setsset.	.10	.10¼			
Patent endsset.	.17¾	.18			
Stearin 6s 16 oz., plain, casesset.	.16¾	.17			
Castor, No. 1, bbls.fb.	.12¼	.12½			
No. 3, bbls.fb.	.11¾	.12			
Chinawood, bbls. or drs.fb.	—	.11½			
Coast, tanks, spotfb.	—	.10¼			
Futuresfb.	.10	.10¼			
Coconut, Ceylon grade, bbls.fb.	.07½	.08½			
Coast, Tanks, Domestic Whitefb.	.06¼	.06¾			
Cochin grade, bbls.fb.	.08¾	.08¾			
Manila, bbls.fb.	.07½	.08½			
Tanks, N. Y.fb.	.06¾	.06¾			
Fatty acids, mill tanksfb.	.09½	—			
Cod, Newfoundland, bbls.gal.	.52	.56			
Copra, bags, coastfb.	.03¾	.04			
Corn, tanks, millsfb.	.07¾	.07¾			
Bbls., New Yorkfb.	.10	nom.			
Refined, bbls.fb.	.10½	nom.			
Fatty acidfb.	.07¾	—			
Cottonseed, crude, tanks, millsfb.	.07¼	—			
P. S. Y.fb.	—	.08½			
Fatty acids, mill, bbls.fb.	.07¾	—			
Degras, domestic, bbls.fb.	.03¾	.04½			
English, bbls.fb.	.04½	.05			
German, bbls.fb.	.03¼	.03¾			
Neutral, domestic, bbls.fb.	.07¾	.08½			
English, bbls.fb.	.08	.09			
German, bbls.fb.	.07	.07½			
Greases, choice white, bbl. N. Y.fb.	.06	.07¾			
Yellowfb.	.05¾	.05¾			
Brownfb.	.05½	.05¾			
Housefb.	.05¾	.05¾			
Herring, coast tanksgal.	—	nom.			
Horse, bbls.fb.	.09½	nom.			
Lard, city, tiercesfb.	.10¼	—			
Compound, tiercesfb.	.10¾	.11			
Middle Western, tiercesfb.	.10½	—			
Neutral, tiercesfb.	.12	—			
Prime Western, tiercesfb.	.10¾	—			
Lard oil, No. 1, bbls.fb.	.10¼	—			
No. 2, bbls.fb.	.10	—			
Extra bbls.fb.	.11	—			
No. 1, bbls.fb.	.10¾	—			
Winter strained, bbls.fb.	.11¾	—			
Prime, bbls.fb.	.13	—			
Linseed Oil, boiled, tanksfb.	.1380	—			
Car lots, bbls.fb.	.1460	—			
Less car lots, bbls.fb.	.1500	—			
Less than 5 bbls.fb.	.1520	.1540			
Double boiled, less than 5 bbls.fb.	.1570	.1600			
Raw, tanksfb.	.1340	—			
Car lots, bbls.fb.	.1420	—			
Less car lots, bbls.fb.	.1460	—			
Less than 5 bbls.fb.	.1500	—			
Refined, bbls.fb.	.1490	.1530			
Varnish grades, bbls.fb.	.1510	.1550			
Linseed cake, bagston	33.00	33.50			
Meal, bagston	35.00	—			
Menhaden, crude, tanks, Baltimore .gal.	.45	nom.			
Light pressed, bbls.gal.	.58	.60			
Yellow bleached, bbls.gal.	.60	.62			
White bleached, bbls.gal.	.63	.65			
Mustard, bbls.gal.	.90	—			
Neatsfoot, cold pressed, bbls.fb.	.17¼	—			
Extra, bbls.fb.	.11	—			
No. 1, bbls.fb.	.10½	—			
Pure, bbls.fb.	.12½	—			
Oleo, No. 1, bbls.fb.	.12¾	—			
No. 2, bbls.fb.	.10¾	—			
Olive, denatured, bbls. N. Y.gal.	.75	.85			
Shipmentsgal.	.75	.80			
Foots, bbls.fb.	.07½	—			
Shipmentsfb.	.07	.07½			
Edible, bbls.fb.	2.00	2.40			
Palm, Lagos, casks, spotfb.	.07¼	.07¾			
Shipmentsfb.	.06¾	—			
Niger, casks, spotfb.	.06¾	.06¾			
Shipmentsfb.	.06½	.06¾			
Palm Kernel, pkgs.fb.	.07¾	.07¾			
Tank carsfb.	.07¾	.07¼			
Peanut, crude, bbls.fb.	.09¼	.09¾			
Mills, tanksfb.	.07½	nom.			
Refined, bbls.fb.	.12½	.13			
Perilla, bbl.fb.	.12¾	.13			
Poppy Seed, bbls.gal.	1.70	—			
Rapeseed, blown, bbls.gal.	.92	.93			
Refined, bbls.fb.	.66	.67			
Red Oil, distilled, bbls.fb.	.10¼	.10¾			
Tanksfb.	.09¼	—			
Saponified, bbls.fb.	.10¾	.10¾			
Tanksfb.	.09¼	—			
Salmon, coast, tanksgal.	.44	nom.			
Sardine, coast, tanksgal.	.42½	nom.			
Sesame, refined, drumsfb.	.12	.12½			
Soya Bean, blown, bbls.fb.	.11¾	.12			
Crude, bbls.fb.	.11¼	.11½			
Orient, coast, tanksfb.	.09¼	.09¼			
Sperm, bleached f.o.b., New Bedford,					
bbls.gal.	.84	.85			
Natural, f.o.b., New Bedford, bbls. .gal.	.78	.80			
Stearic Acid, Double pressed, bags . .fb.	.14½	.15			
Triple pressed, bagsfb.	.16½	.17			
Stearine oleo, bbls.fb.	.08¾	.09			
Tallow, edible, bbls.fb.	.07¾	.07½			
City, extra, works, loosefb.	.06¾	—			
Special, works, loosefb.	.06¾	—			
Tallow, oil, acidless, bbls.fb.	.10	—			
Tanks, N. Y.fb.	.09¾	—			
Vegetable tallow, coast, matsfb.	.07¾	—			
Whale, crude, No. 1, coast, tanks . . .lb.	.07	—			
No. 2, coast, tanksfb.	.06½	—			
Refined, winter bleached, bbls. . . .gal.	.80	—			
Extra, bbls.gal.	.82	—			
Natural, bbls.gal.	.78	—			