Abstracts

Oils and Fats

Edited by
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MICROMETHODS IN THE FAT FIELD. G. Gorbach. *Fette u. Seifen 47,* 499-506 (1940).

FRACTIONAL DISTILLATION OF FATTY ACIDS. D. V. Stingley. *Chem. Ind. 48,* 50-2 (1941).

ECONOMIC ASPECTS OF SYNTHETIC GLYCERINE PRODUCTION. E. C. Williams and associates. *Chem. & Met. 48,* 87-9 (1941).

LANOLIN PRODUCTION BY CENTRIFUGE. P. Steinacker. *Fette u. Seifen 47,* 535-7 (1940). Description and flow sheets of factory are given.

A SIMPLE METHOD FOR SEPARATING THE UNSAPONIFIABLE FROM LARGE FAT AMOUNTS. J. Grossfeld. *Z. Untersuch. Lebensm. 80,* 434-9 (1940). The perforation method (Grossfeld and Payfer) of extn. is suitable for removing the unsaponifiable from large amts. of alcoholic soap soln. According to the method, the soap from 40 g. of fat is extd. 6 hrs. with 250 cc. benzine. Extn. of hydrocarbons is practically complete and over 90% of the sterols are extd. The method is simple and saves benzine. The oleic-hydrocarbon values (Grossfeld *C.A.* 34, 1205[4]) of several fats were: cacao butter 0.03-0.06, cacao hull fat 0.71, butter fat 0.02, lard 0, beef fat 0.01, hardened whale oil 0.01, olive oil 0.56 and margarine 0.01. *(Chem. Abs.)*

CARBONYL NUMBER OF OXIDIZED FAT. H. P. Kaufmann and F.-Y. Liu. *Fette u. Seifen 47,* 506-10 (1940). The CO no. of spoiled fats and development of CO no. in coconut, palm, peanut, soybean, etc. oils and butter, lard and tallow during storage were investigated. As for example the data on butter and lard, resp., were: fresh 0.5, 1.5 after 21 days 3.4, 3.1 and after 50 days 17.1, 12.5. In fats contg. abundant active O a correction, peroxide no. x 0.028 is subtracted from the CO no. The application of CO no. detn. in investigating fat spoilage is recommended.

THE DIFFERENCE NUMBER ACCORDING TO POLENSKE FOR JUDGING LARD. R. Grau. *Z. Untersuch. Lebensm. 80,* 338-42 (1940). The difference no. (I) (*C.A.* 2, 716[3]) according to Polenske is unusually low for the back fats of Rumanian or Hungarian hogs. This is caused by oil contg. hog feeds. A considerable amt. of low I occurs in the local (Ger.) fat back lard. The I and % of solid fat acids, resp., were: 2 samples fat back lard 10.7 and 13.3, 38.2 and 38.6, belly fat ("flomen") lard 18.3, 48.2. The I can serve as an orientation value. An easily assembled app. is recommended to take the place of the unwieldy app. of Polenske *(Chem. Abs.)*

FAT CONTAINING AMINO-ALCOHOL PREPARATIONS FOR PROTECTION AGAINST RANCIDITY. *Fette u. Seifen 47,* 542-3 (1940). Review.

INFLUENCE OF TOCOPHEROL, GERM OIL AND GERM OIL CONCENTRATES ON ALDEHYDIC AND KETONIC DEVELOPMENT. H. Thaler and K. E. Schulte. *Fette u. Seifen 47,* 522-6 (1940). The literature is reviewed. The germ oil products inhibit oxidation by air. Their effect on biochemical aldehyde and ketone formation from satd. acids was inconsistent, in some cases the action was increased, others decreased and in many there was no effect.

PREVENTION OF RANCIDITY OF FATS AND OILS. E. Belani. *Seifensieder-Ztg. 67,* 515, 526 (1940). A review of the mathematical relationship between elapsed time and O^2 consumed is presented. Bacteria (schizomycetes and others) may cause marked discolorations. Unpreserved fats are readily attacked by molds. Furfurol (I), boric acid (II), salt (III), and hexametacresol (IV) are cheap and approved preservatives. I and II may not be used for edible fats; III and IV only in limited proportions. However, use is permitted of *Fettabacterin HH,* a white powder, almost insol. in water, odorless, tasteless and completely sol. in fats on warming. It is a completely usable preservative and kills germs in a concn. of 0.15%. *(Chem. Abs.)*

THE ACIDITY OF STORED FATS AND OF MOLDY SALTED AND UNSALTED BUTTERS. A. Schloemer. *Z. Untersuch. Lebensm. 80,* 329-39 (1940). The av. acidity of fresh butter (55 samples) was 0.6. Dairy butter was as stable as farm butter. More cases of moldiness occurred among the unsalted butters. The influence of mold varied. In many cases the progress of molding came to a standstill while the acidity continued to increase. Speed of molding varied with temp, and the butter sample. Quality decrease and acid development was slower in salted butters than in unsalted butters. The literature on the subject is reviewed. There are about 65 references. *(Chem. Abs.)*

THE CHANGING CORRELATION BETWEEN BUTYRIC ACID VALUE AND REFRACTIVE INDEX OF BUTTER FAT. K. Rauch and A. Schloemer. *Z. Untersuch. Lebensm. 80,* 243-8 (1940). —959 Berlin retail samples of butter were investigated. The correlation factor between butyric acid value and *n* amtd. to —0.60 with a —0.1 apparent error. The factor was higher during the summer than during the stall fed winter period. In complaint cases the butyric acid value in addn. to the *n* has some conclusiveness. *(Chem. Abs.)*

MELTING POINT, MELTING INTERVAL AND CONSISTENCY. L. Erlandsen. *Fette u. Seifen 47,* 510-4 (1940). Data on m.p. and changes of m.p. with mixing is tabulated and graphically represented. The literature on the subject is reviewed.

PATENTS

APPARATUS FOR EXTRACTION. L. C. Swallen and H. Reintjes (Corn Products Co.). *U.S. 2,227,605.* The system comprises a series of extn. units thru which the solids are moved in one direction and the solvent and extractives in the other direction.

PROCESS FOR DEHYDRATING AND DEFATTING WATER— AND OIL-CONTAINING SUBSTANCES. P. L. Fauth and J. R. Reichert (Fauth Patent A.-G.). *U.S. 2,229,376.* Slaughterhouse waste is heated to about 70 to 90° C. in a pre-heated water bath contg. albumin pptg. agent and emulsion preventing substances thereafter heated to 130° C. The fat is skimmed off and the solid material is pressed and dried for use as animal feed.

PROCESS FOR STABILIZING ESTER TYPE OILS AGAINST COLD. G. Voogt and H. Seeles (Shell Development Co.). *U.S. 2,228,040.* The process of refining neat's-foot oil to produce low cold test oil comprises diluting said oil