Competitive Position of Lard in the Market of Animal and Vegetable Fats and Oils

BY RAINER SCHICKELE AND TREODORE W. SCHULTZ

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IOWA STATE COLLEGE OF AGRICULTURE
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AGRICULTURAL ECONOMICS SECTION





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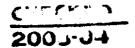
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LIST OF REFERENCES

- Alsberg, Carl and Taylor, A. Fats and oils, a general view. Food Research Institute, Stanford Univ., Calif. 1928.
- Bailey, H. S. The production and conservation of fats and oils in the United States. U. S. Dept. of Agr., Bul. 769. February, 1919.
- Bjorka, Knute. International trade in pork and pork products. Iowa Agr. Exp. Sta., Res. Bul. 122. 1930.
- Bolton, E. R. and Pelly, R. G. Oils, fats, waxes and resins. The resources of the Empire Series. London, Ernest Benn, Itd. 1928.
- Brodé, Julien. Oil-seed products and feedstuffs. Dept. of Com. and Labor, Bur. of Manufactures. Special Agents Series No. 39. 1910.
- Clemen, R. A. By-products in the packing industry. University of Chicago Press. 1927.
- Clemen, R. A. The American livestock and meat industry. Ronald Press Company, New York. 1923.
- Edinger, A. T. Recent trends in retail meat prices and their relation to livestock prices. U. S. Dept. of Agr., Bur. of Agr. Ec. Address, Ohio Livestock Corporation, Columbus, Ohio. Feb. 25, 1932 (mimeographed).
- Flux, A. W. Our food supply before and after the war. Jour. of the Royal Stat. Society. Part IV. 93:538-560. 1930.
- Gordon, John. Foreign vegetable oils and American lard and butter. Bureau of Raw Materials for American Vegetable Oils and Fats Industries. Washington, D. C. 1921.
- Haas, G. C. and Ezekiel, M. Factors affecting the price of hogs. U. S. Dept. of Agr., Bul. 1440. 1926.
- Imperial Economic Committee, 12th report: Pigs and pig products. His Majesty's Stationary Office, London. 1929.
- Lewkowitsch, T. Chemical technology and analysis of oils, fats and waxes. London, 1922,
- McBride, R. S. Fat and oil supply depends upon world-wide factors. Food Industries, Vol. 4, No. 7, pp. 248-250. July, 1932.
- Ministry of Agriculture and Fisheries. Report on the pork and bacon trade in England and Wales. Economic Series No. 17. His Majesty's Stationary Office. London. 1928
- Morse, W. J. Soybean utilization. U. S. Dept. of Agr., Farmers' Bul. 1617. January, 1930, revised March, 1932.
- Nelson, P. M. and Lowe, B. Use lard as a household fat. Iowa State College, Ames, Iowa. Ext. Ser. Bul. 1932.
- Packers' Encyclopedia (Revised edition). The National Provisioner. Chicago. 1932.
- Rhoades, E. L. The management of chain meat markets. Studies in the packing industry. University of Chicago Press. 1929.
- Snodgrass, Katherine. Copra and coconut oil. Food Research Institute, Stanford Univ., Calif. Fats and Oils Studies, No. 2. April 1928.
- Snodgrass, Katherine. Margarine as a butter substitute. Food Research Institute, Stanford Univ., Calif. Fats and Oils Studies No 4. December, 1930.
- Taylor, A. E. Corn and hog surplus of the Corn Belt. Food Research Institute, Stanford Univ., Calif. 1932.
- Thomas, E. L. Margarine industry of Europe. U. S. Dept. of Com., Bur. of Forland Dom. Com. Trade Inf. Bul. 677. 1930.

- Thorne, G. B. and Richards, Preston. Factors affecting exports of United States hog products (mimeographed). U. S. Dept of Agr. November, 1932.
- U. S. Dept. of Agr., Bur. of Agr. Ec. Statistics of hogs, pork and pork products. Year ended Dec. 31, 1925, with comparable data for earlier years. Stat. Bul. 18. 1927.
- U. S. Dept. of Agr., Bur. of Agr. Ec. Statistics of fats, oils and oleaginous raw materials. Stat. Bul. 24. 1928.
- U. S. Dept. of Agr., Bur. of Agr. Ec. Statistical and Historical Research Division. Foreign trade of the United States, 1790-1929. Hogs, pork and pork products, by C. G. Gries. Report F. S. 44 (mimeographed). Nov. 27, 1929.
- U. S. Dept. of Agr., Bur. of Agr. Ec. Statistics of meat production, consumption and foreign trade of the United States, 1900-1931. Preliminary Report (mimeographed). Washington. March, 1931.
- U. S. Dept. of Com., Bur. of For. and Dom. Com. A survey of the mayonnaise, salad and related product industries (mimeographed). 1930.
- U. S. Dept. of Com., Bur. of For. and Dom. Com. Vegetable oils and oil materials in international commerce. Misc. Series No. 108, 1922.
- U. S. Dept. of Labor, Bur. of Labor Stat. Wholesale prices. Bulletins 367, 390, 415, 440, 473, 493, 521 and 543.
- U. S. Tariff Commission. Certain vegetable oils. Part I. Costs of production. 1926. Part II. Economic study of the trade in and the prices and interchangeability of oils and fats. 1926.
- U. S. Tariff Commission. Report to the Congress on certain vegetable oils, whale oil and copra. Report No. 41, Second Series. Washington, D. C. March 23, 1932.
- U. S. Tariff Commission. Report to the Congress on olive oil. Report No. 22, Second Series.
- Whalin, Oren L. and Steward, C. L. Domestic utilization of fats and oils. Manufacturers' Record. Vol. 101, No. 16, pp. 14-15. Baltimore, Md. April 21, 1932.
- Wheeler, L. A. The Cuban market for American foodstuffs. U. S. Dept. of Com., Bur. of For. and Dom. Com. Trade Inf. Bul. 325. March, 1925.
- Wood, T. B. The National food supply in peace and war. Cambridge, England. 1917.
- Wrenn, F. E. World trade in vegetable oils and animal fats. U. S. Dept. of Com., Bur. of For. and Dom. Com. Misc. Series. No. 123. 1923.
- Wrenn, F. E. Marketing of American meat products in export trade. U. S. Dept. of Com., Bur. of For. and Dom. Com. Trade Inf. Bul. 333. 1925.
- Wrenn, F. E. International trade in meats and animal fats. U. S. Dept. of Com., Bur. of For. and Dom. Com. Trade Promotion Series No. 26. 1925.
- Wright, P. F. The tariff on animal and vegetable oils. Institute of Economics. The Brookings Institution. MacMillan Company, New York. 1928.
- Zapoleon, L. B. Inedible animal fats in the United States. Food Research Institute, Stanford Univ., Calif. Fats and Oils Studies No. 3. December, 1929.



PERIODIC LITERATURE

Blaetter fuer Landwirtschaftliche Marktforschung. Monatsschrift des Instituts fuer Landwirtschaftliche Marktforschung. Berlin.

Board of Trade, Chicago. The 74, Annual Report, for 1931. Lincoln Printing Co., Chicago. 1932.

Chicago Daily Drovers Journal Yearbook. Drovers' Journal Publishing Company, Chicago, Ill.

The Cotton and Cotton Oil News. Dallas, Texas. Weekly.

Dairy Produce Yearbook. Dairy Produce Publishers, Chicago, Ill.

Food Industries. McGraw-Hill Publishing Company. Monthly.

His Majesty's Stationary Office. Annual statement of the trade of the United Kingdom. London.

His Majesty's Stationary Office. Statistical Abstracts for the United Kingdom. London. Yearly.

Manufacturers' Record. Manufacturers' Record Publishing Company.

Baltimore, Md. Monthly.

The National Provisioner. Chicago, Ill. Weekly.

The Oil, Paint and Drug Reporter. New York. Weekly.

Review of the Oil and Fat Markets (Annual). Faure Blattman and Company. London (Not consulted).

Review of the Oil Seeds and Oil Markets (Annual). Frank Fehr, London (Not consulted).

Soap. Mac Nair Dorland, New York. Monthly.

Statistisches Jahrbuch fuer das Deutche Reich. Herausgegeben vom Statistischen Reichsamt. Verlag Reimar Hobbing, Berlin.

U. S. Dept. of Agr. Yearbook.

U. S. Dept. of Agr. Crops and Markets. Monthly.

U. S. Dept. of Agr., Bur. of Agr. Ec. Foreign Crops and Markets. Weekly.

U. S. Dept. of Agr., Bur. of Agr. Ec. World Hog and Pork Prospects. Monthly (mimeographed).

U. S. Dept. of Com., Bur. of the Census Census of Manufactures, Industry Series. Slaughtering, Meat Packing, and Related Indus-tries. Biennial Census.

U. S. Dept. of Com., Bur. of the Census. Animal and Vegetable Fats and Oils Production, Consumption, Imports, Exports and Stocks. Annual Report.

U. S. Dept. of Com., Bur. of For. and Dom. Com. Foreign Commerce and Navigation of the U.S. Yearly.

U. S. Dept. of Com., Bur. of For. and Dom. Com. Statistical Abstracts of the United States.

U. S. Dept. of Com., Bur. of For. and Dom. Com. Monthly Summary of Foreign Commerce of the U.S. Monthly.

U. S. Dept. of Labor, Bur. of Labor Stat. Monthly Labor Review.