Procter and Gamble Foster Practical Research

Complete Laboratory and Experimental Bakery Maintained for Study of Shortening Applications

The Procter & Gamble bakery research laboratory

A NUMBER of years ago The Procter & Gamble Co. entered the edible fat industry. It soon became apparent to them that a thorough knowledge of the problems confronting the baker was essential to the success of this business. It was evident that only an understanding of the principles of baking could enable them to produce shortenings so designed as to meet the exacting demands of the trade.

The department began in a small way with one chemist assigned to it and one practical baker. In spite of the fact that these two experimenters had the assistance and cooperation of the entire Chemical and Engineering Divisions of the Company, it was soon quite evident that the department was entirely too small to obtain the best results in all of the fields of endeavor which seemed advisable. Today there is a group of practical bakers, and several chemists who devote their entire time to bakery projects. Other members of the Chemical Division, including the general laboratory staff, lend considerable assistance in carrying on the work of the department. Members of the Engineering Staff are frequently consulted and the Sales Research and Advertising Departments contribute their share.

Some of the practical bakers are devoting almost their entire time to educational work in bakeshops all over the country. They are assigned to work with certain salesmen so that they cover their districts at regular intervals and give service to a baker when trouble enters his shop. They also give formulas to the baker and instruct him in modern shop practice. Other bakers spend most of their time in the experimental bakery carrying on research problems. In this work they are under the guidance of the Chemical Staff, who assist them in laying out their research program, in the examination of the baked goods produced, and in drawing up their data and reports. In addition to the many calls which were made by the traveling bakers during the year 1928, hundreds of letters were received from bakers. These letters contained requests of all kinds for information, service and formulas. The bakery is visited from time to time by scores of practical bakers, allied chemists, and others interested in the baking industry. Many of these visitors spend from one to ten days in the experimental bakery, during which time

(*Turn to Page* 43)

Vegetable Oils in Brazil

(*From Page* 13)

tablished in Brazil for chemists and agriculturists who have received their degrees in the agricultural colleges and other university institutions of the country. The material already acquired by the oils laboratory is valued at some $43,000, but the Government proposes to complete the installation with apparatus for essential oils, the extraction of glycerine, and the manufacture of candles and other articles. There could be no greater evidence of the confidence felt by the Government and people of Brazil in the future of its vegetable oil industry.

Bleaching Loss Coefficients

(*From Page* 20)

retention of any given bleaching material. Having arrived at a successful solution of the problem, we have not fully determined which portions of the procedure are critical and which are not. Nevertheless, since the method as we have used it seems to give satisfactory results, we offer it in the thought that it may be of some use to others, even though some of the details specified may represent useless restrictions.

Summary

DETAILED description has been given of a laboratory method for determining oil retention by bleaching earths and carbons. The method involves determination of the increase in weight resulting when a sample of the bleaching material is treated with oil and the excess oil removed by suction in a stream of hot inert gas under standardized conditions. The oil retention values obtained by this method fall within the range of those observed under practical conditions of plant operation.

Bakery Research Laboratory

(*From Page* 21)

they bake a complete line of pies, pastries, cakes, doughnuts, and icings. These visits are becoming more and more popular and give promise of developing into small baking schools where several bakers will receive instruction at the same time.

The Bakery Research Department has published booklets on the following subjects: Danish Pastry, doughnuts, cookies, icings, pies, and cakes. In addition to this educational material, numerous bulletins on subjects relating to bakery practice have been issued and a good many magazine articles have been prepared. These bulletins and articles have covered a variety of problems. New methods for cake manufacture, nut frying, potato chip frying, eliminating mould from the bakery, reducing the overhead cost, together with articles on the manufacture and proper use of fats, are examples of this type of work. The Bakery Research Department maintains a complete formula service for bakers and the files contain hundreds of formulas for almost every conceivable type of pastry and other baked goods.

The Secretary of The American Oil Chemists' Society desires to call the attention of the members of the Society to the requirement of the use of a clear colorless glass in connection with many color readings of oil under the new rules on color reading. The glass to be used must be a standard one. Standard glasses for this purpose may now be obtained from the Secretary of The American Oil Chemists' Society, 705 Tchoupitoulas St., New Orleans, Louisiana. The charge for such glasses is fifty cents each, plus postage.

Census Report

(*From Page* 36)

EXPORTS OF FOREIGN FATS AND OILS, QUARTER ENDED JUNE 30, 1929

KIND	Pounds
Fish oils	7,664
Other animal oils & fats, inedible	185,384
Olive oil, edible	33,003
Tung oils	1,568,083
Coconut oil	563,566
Palm & palm-kernel oil	790,239
Peanut oil	10,948
Soya-bean oil	1,517
Other expressed oils & fats	70,389
Vegetable wax	345,599

EXPORTS OF DOMESTIC FATS AND OILS, QUARTER ENDED JUNE 30, 1929

KIND	Pounds
Oleo oil	16,470,589
Oleo stock	2,197,038
Tallow	526,833
Lard	190,587,381
Lard, neutral	3,339,235
Lard compounds, containing animal fats	857,152
Oleo & lard stearin	1,398,351
Neat's-foot oil	175,438
Other animal oils, inedible	205,250
Fish oils	166,756
Grease stearin	736,215
Oleic acid, or red oil	1,166,807
Stearic acid	338,109
Other animal greases & fats	16,834,209
Cottonseed oil, crude	2,479,598
Cottonseed oil, refined	1,759,203
Corn oil	96,066
Vegetable oil lard compounds	1,624,887
Other edible vegetable oils and fats	832,172
Coconut oil	7,215,433
Linseed oil	483,695
Soya-bean oil	3,231,953
Vegetable soap stock	1,407,602
Other expressed oils and fats, inedible	2,272,155
Glycerin	321,231