

Progress Report—Fat Analysis Committee

At the Governing Board meeting following the 1932 May Meeting of the Society in New Orleans, President Hammer brought up the matter of the desirability of reviving the activities of the Fat Analysis Committee, and asked the writer, as Secretary of the committee, to get the work under way.

Therefore, in pursuance of this request, in July a report of the cooperative work on rosin in fatty acid mixtures, and also a report on some cooperative work on the color of fish oil using a dilution method with white mineral oil and reading the colors in the Lovibond scale, were sent out to the members of the committee for their comments.

A meeting of the committee was called in conjunction with the Fall Meeting of the Society, at which Messrs. Vollertsen, Sheely, Long, A. S. Richardson (for H. J. Morrison), A. A. Robinson (for L. M. Tolman), and the writer were present.

F. A. C. Color Standards.—The F. A. C. color standards were thoroughly discussed and it was agreed that the committee would make a study of the standards suggested by Mr. Doherty. This work is under way at the present time and considerable progress has been made, but some difficulties have developed with the suggested formulae. The committee work so far indicates that the standards are much less likely to be changed by the action of light than the old F. A. C. standards.

Smoke Point.—Work was also outlined on the smoke point of edible fats and oils and two sets of cooperative samples were sent out and reports have been received on the first set. This work, however, is not far enough along to make a final report.

Wiley Melting Point.—It was also agreed to make a cooperative study of the Wiley Melting Point, and two sets of samples were sent out on this work. The results on the first set are not in as good agreement as the committee should like to see, and further work is being done.

Rosin in Soap.—Further samples of fatty acid rosin mixtures were prepared and sent to a sub-committee consisting of Messrs. Long, Sheely and Irwin for further study.

Moisture.—The Vacuum Oven Method for moisture, which has been the Official Method of the Fat Analysis

Committee for several years, was ordered deleted at the last meeting. The main reason for this action was that very few laboratories are equipped with the Official Vacuum Oven, and since the Hot Plate method is in quite general use, and gives satisfaction in the majority of cases, it was adopted as the Official Method for moisture and volatile.

Since this action, however, there has been some objection to the deletion of the vacuum oven method, in view of the fact that the study made by the committee indicated that the results obtained by it were very satisfactory. Therefore, the matter of the deletion of this method will be reconsidered at the next meeting of the committee where it is hoped we may have a full discussion of the matter.

The paragraph in regard to the use of a well constructed and well ventilated air oven, held at a uniform temperature of 105 to 110°, remains unchanged.

It was also agreed to insert a note in the method, that in case large amounts of free moisture were present the Kingman Distillation method should be used.

Titer.—The question of clarifying the method of stirring, in the titer determination, was discussed and it was agreed to add a note calling attention to the fact that the intent of the method was to stir with a circular motion instead of up and down. While this would appear obvious, some laboratories did not agree on this viewpoint.

It is the plan of the committee to continue the work and try to have a report of recommendations as to the adoption of methods ready for the Fall Meeting, October 12 and 13, 1933.

FAT ANALYSIS COMMITTEE.

W. H. Irwin, Chairman.

T. C. Law

J. J. Vollertsen

H. J. Morrison

H. P. Trevithick

David Wesson

M. L. Sheely

C. P. Long

L. M. Tolman

R. W. Bailey

Report of the Referee Board for the Year 1932-33

Two new limited referee certificates have been granted, to the following:

C. M. Coguenhem, Shilstone Testing Laboratory, Houston, Texas.

N. F. Amsler, Brenham Laboratory, Brenham, Texas.

Coöperative test samples distributed by the Referee Board are as follows:

6 crude cottonseed oil samples for refining and bleaching tests.

5 refined cottonseed oil samples for bleaching tests.

3 soap stock samples for determination of total fat.

These samples were distributed in coöperation with the Chemists' Committee of the N. C. P. A. The total number of coöperative samples handled by our referee chemists, including the check seed samples of the Chemists' Committee and the check meal samples of our Smalley Foundation Committee, is the largest of record and not necessarily to be taken as a precedent to be followed in the future.

The Chemists' Committee has met the expense of distributing the oil and soap-stock samples and the chairman of that committee has made the only detailed analysis of the results. The Referee Board has assisted by studying the methods of handling coöperative samples and by attending to the actual distribution of oil and soap-stock samples throughout the past season.

The results as a whole are far from perfect, but more reassuring than alarming. The worst work of any referee chemist calls for no action other than merely letting the participant see his results in comparison with the prevailing results of the whole group. In this connection it should be pointed out that the three laboratories making the poorest showing in the tabulation of the Chemists' Committee on crude oil samples were not referee chemists. This fact is gratifying to the Referee Board, but means that the showing of some of the referee chemists, relative to that of other referee chemists, is not as good as may have appeared in the complete tabulation.