

Report of the Uniform Methods Committee for 1947-48

THROUGH the years there has generally been a slow turnover in personnel of the Uniform Methods Committee. Seldom has the personnel of the seven-man committee changed by more than one man in any new year's appointments. The present committee differs from the last committee by only one man, but this change is in the chairmanship, being the first such change in 19 years. Although this is a technical report your committee thinks it entirely appropriate here to record that J. J. Vollertsen was continuously a member of the Uniform Methods Committee for 27 years, being its chairman continuously for 19 years; resigning last year to accept further service to the Society as its treasurer.

The work of the committee during this past year is briefly outlined as follows:

1. Accepted the responsibility for the first time, assumed from the Chemists' Committee of the N.C.P.A. and the Technical Committee of the N.S.P.A., of preparing and standardizing official bleaching earths and Filteraid.
2. Prepared a special committee report on the historical development of A.O.C.S. official bleaching earths, published in the January, 1948, issue of the Journal. This was deemed advisable for future reference. The source material was largely in private files.
3. Procured and standardized, through the cooperation of the Procter and Gamble Company, a new lot of official natural bleaching earth, the first new lot to be prepared in nine years.
4. Procured and standardized, through the cooperation of the Filtrol Company, a new lot of official activated bleaching clay, the first new lot to be prepared in five years.
5. Procured and standardized, through the cooperation of the Dicalite Company, a new lot of official diatomaceous earth, for the first time in apparently 15 years (not available for sale until July, 1948).
6. Procured a new supply of official aluminum moisture dishes, the first new supply in four years (not available for sale until July, 1948).

NOTE: All of the items in 3, 4, 5, and 6 are suitably packaged and distributed by the Central Scientific Company through special arrangement with the Society.

7. Handled a great deal of correspondence concerning the procurement and standardization of Lovibond color glasses, only to learn that Tintometer Ltd. in England, sole manufacturer of the glasses, was not disposed to furnish suitable glasses for standardization according to Society requirements. In cooperation with the Color Committee the Uniform Methods Committee through Mr. J. T. R. Andrews prepared a special report on the historical and current situation concerning Lovibond glasses. This was published in the March, 1948, issue of the journal.
8. Worked with the Color Committee in expediting their committee work on the development of a spectrometric color measuring test in view of the apparent necessary abolition of the Lovibond color method for oils.

The Uniform Methods Committee is the only technical committee specifically required by the constitution and by-laws. The old by-laws specifically delegate to this committee two clear-cut functions, namely:

1. The approval of all Official Methods prior to presentation to the Society for adoption and publication, and
2. Procure, approve, and maintain for sale standard materials necessary for the use of the published methods (although this is not specified in the new by-laws).

A third delegation of duties to the committee by by-laws is more implied than specific, being the con-

duct of collaborative work in developing new methods. In the early years of the Society it was probable that the Uniform Methods Committee did this work within the committee or sub-committees. As the scope of this analytical method development increased through the years, this work increasingly became the function of separately appointed technical committees whose work became more and more delegated from the president of the Society or incorporated within the other technical committees without much concern of the Uniform Methods Committee until detailed methods were developed. This is a natural evolution, consistent with the rapid growth of the Society to the point where the Uniform Methods Committee is no longer much involved in cooperative analytical work. The official name of the committee was Uniform Methods and Cooperative Work, but the new by-laws have wisely dropped the Cooperative Work nomenclature.

The new by-laws still imply that the Uniform Methods Committee should be responsible for improving analytical methods and delegating work to the various technical committees. It further charges the Uniform Methods Committee with making a report in summary form to the Society annually, followed by publication in the Journal.

The committee, therefore, feels that it has a certain implied duty in the supervision of the work of the various technical committees, and this annual report is based on the interpretation that it should comment on the current work of the present 11 other technical committees as follows:

The Fat and Oil Analysis Committee recommended four new methods which were approved and adopted at the last fall meeting applicable to drying oils for 1. Acid Number, 2. Refractive Index, 3. Specific Gravity, and 4. Gardner Color. Also a revision in oil sampling method C-1-41 was approved and adopted. The seven sub-committees of this Fat Analysis Committee are all active in the development of needed analytical methods for:

- Determination of peroxide value
- Determination of unsaponifiable matter
- Determination of thiocyanogen value
- Separation of liquid and solid fatty acids
- Analysis of drying oils
- Analysis of lecithin
- Evaluation of F.A.C. Color Standards and method in the light of present-day requirements.

The Vitamin Committee last reported to the Society two years ago concerning the adoption of a new Vitamin A reference standard which last summer was adopted by the U. S. Pharmacopoeia. This committee has nothing further to report to the Society but is engaged in intensive collaborative work not only within its own committee but in collaboration with other scientific groups in studying the use of the standard in biological and physicochemical assay procedures.

The Bleaching Methods Committee has not reported to the Society for several years and is rather inactive. The only problem before it is the possibility of developing a primary standard to evaluate standard bleaching materials, but this has not yet resolved itself into any laboratory work pending further discussion and study.

The Cellulose Yield Committee has reported to the Society at this meeting concerning its only current work, which involves collaborative testing on existing official methods.

The Glycerine Analysis Committee reported informally at the fall meeting on some extensive collaborative work in progress. This work will be completed soon and reported at the next fall meeting in considerable magnitude. It will include recommendations that the Society maintain a supply of standard crude glycerine with a rather complete accepted official analysis.

The Gossypol Committee has reported to the Society at this meeting on further collaborative work done in the past year in developing a satisfactory test to be recommended for official adoption. Further collaborative work was recommended.

The Oil Color Committee has been extremely active through its subcommittee on spectrophotometric color measuring methods to take the place of the existing Lovibond method. This subcommittee report has been made to the Society at this meeting, and the work will be continued in a matter involving the entire committee. It is anticipated that a tentative official method for spectrophotometric color measurement may be adopted at the next fall meeting.

The Refining Committee is active through its centrifugal refining subcommittee and has reported to the Society at this meeting. The work of this subcommittee has already resulted in a laboratory centrifugal refining procedure quite satisfactory on degummed soybean oils. Collaborative work will be expanded to all types of soybean oils.

The Seed and Meal Analysis Committee has been active through its eight subcommittees. The subcommittees on 1. Soy Flour Sampling, 2. Soy Flour Sieving, 3. Soy Flour Water Absorption, 4. Lecithin in Soy Flour, 5. Crude Fiber in Soy Flour, and 6. Analysis of Copra have all been actively engaged in collaborative work on analytical method development but have nothing to report to the Society.

The Subcommittee on Peanuts and Peanut Meal made the following recommendations which were

unanimously approved by the Uniform Methods Committee and the Society:

1. Certain changes in Ab-1-38 for sampling peanuts, involving crimp sealing of cans.
2. Tentative method Ab-2-47 for moisture in peanuts be made official.
3. Tentative method Ab-3-47 for oil in peanuts be amended to specify the Henry nut slicer instead of the Universal Food Chopper; and the amended method be made official.
4. Official method Ab-5-38 for free fatty acid in peanuts be amended to specify the Henry nut slicer and be continued official.

The Subcommittee on Tung Seed and Meal Analysis made the following recommendations which were unanimously approved by the Uniform Methods Committee and the Society:

1. The method of sampling of tung fruit which has been studied by the subcommittee on tung be designated as a tentative method.
2. The method of analysis, wherein the whole tung fruit are ground in a Wiley mill and subportions of the ground material used in the moisture determination and, after regrinding in a Bauer mill, used in the oil determination, be designated as a tentative method, with the use of a proper correction to be subtracted from the oil content obtained with the Wiley-Bauer ground fruit because of the extractable material from hulls and shells of tung fruit which is not oil.
3. The method of analysis, wherein the tung fruit is shelled and the moisture and oil are determined on the kernel, be designated as tentative method.

It is worthy of note that these methods on tung fruit are the first methods adopted by our Society with relation to tung and that the tung industry is already operating with these methods satisfactorily.

The Spectroscopy Committee is active largely on collaboratively developing academic information and has nothing to report to the Society at this meeting.

The Soap Analysis Committee has not reported to the Society for several years and is inactive.

J. T. R. ANDREWS	T. H. HOPPER
M. M. DURKEE	T. C. LAW
J. J. GANUCHEAU	L. B. PARSONS
	R. R. KING, chairman

Report of Literature Review Committee

THE publication of the Review of the Literature of Fats, Oils, and Soaps in the April and May, 1948, issues of the Journal of the American Oil Chemists' Society will mark the completion of the 1947-48 year's work of the Literature Review Committee. The reviews are prepared with an effort to include practically all the new literature of the year, or more accurately all the new reports that come to our attention. If some references are one or more years old, it suggests that they were unavailable to us during the preceding years or that we may have missed them.

No effort was made to be critical or to evaluate each contribution to the fat literature; only the con-

clusions of various authors were presented in a semi-classified form.

The outline of the review has been maintained with only minor improvements. The purpose in maintaining the same outline is to make each review a convenient reference source, particularly where one is only interested in specific subjects. Thus, in reviewing one subject, the same section or portion of each annual review can be consulted with ease.

In closing, we wish to solicit criticisms, suggestions, and any information that will improve this work.

E. W. BLANK	W. H. GOSS
J. B. BROWN	M. M. PISKUR, chairman