A.O.C.S. Commentary-

Your Smalley Foundation Committee - - a Look to the Juture

ALTHOUGH the title of this commentary is "A Look to the Future," it appears to the writer that it is virtually impossible to look into the future without at least a cursory glance into the past.

In the early days of the Society Frank N. Smalley devoted his untiring efforts toward developing greater proficiency and agreement by analytical chemists through distribution of a series of check



R. W. Bates

samples. After his death in 1921 the American Oil Chemists' Society continued the work through a committee which, in tribute to his efforts, was formally designated the Smalley Foundation Committee. Through the able guidance of T. C. Law, H. E. Moore, and J. J. Vollertsen the oilseed-meal check-sample program has constituted one of the important services of the Society. However through the years other check samples had been distributed by other committees of the Society, the results being generally for the specific information of the Referee Examining Board. In 1946, as a result of a special committee report issued under the chairmanship of C. E. Morris, all the check-sample work was incorporated under the Smalley Foundation Committee. It was at about this time that the present committee was appointed.

The Smalley Committee has since been expanded to five subcommittees, which distribute and tabulate check samples of oilseed meal, crude vegetable oils, cottonseed, soybeans, peanuts, drying oils, and tallow and grease. During the 1949-50 season, for example, more than 3,200 samples were distributed. On any test series the improvement in the agreement of results has been steady through the years. We believe that this check-sample program is the most extensive in the country today. Oilseed-meal samples, for example, were distributed to 98 collaborators in 27 states and two foreign countries in 1949-50.

In the few years that the writer has been chairman of the committee, it has been increasingly apparent that the success of any such program is greatly conditioned by the following factors:

- 1. Regular distribution of well-prepared samples.
- 2. Prompt tabulation and distribution of results.
- 3. Stimulation of interest in the work, followed by suggestions for improvement of results where necessary.
- 4. Judicious awarding of certificates of proficiency and grading, providing the results are in close enough agreement to leave no doubts as to the applicability of the methods used.
- 5. Establishment of new series when there appears to be sufficient interest.
- 6. Cautious advance where tradition and custom are involved.
- 7. Offering of a service nearest to that desired by the majority of the collaborators. No check-sample program should be a burden.
- 8. Confidential handling of all phases of administration.

ALTHOUGH some of the series will be continued essentially as in the past, new series present new problems and frequently require several years to reach standardization. As an example, the tallow and grease series is already a classic. We are not satisfied that the samples have been completely uniform although every effort has been made to have them so. The reporting of results has not yet been standardized although improvement has been evident. The correlation on F.A.C. colors has been very poor and although again improvement has been shown, we doubt that the method will ever be completely satisfactory on many samples. Certainly the results to date indicate the need for a better method. On the other hand, the results on titer have correlated amazingly well.

The drying oil program has had very little standardization. In this series the type of determination made has been varied in order to find out which type of work is in greatest need. Some results have been returned on the spectrophotometric estimation of color. We believe that these results will prove very interesting.

It is possible of course that some of the series may not become permanent, especially if trading rules or specifications are not involved; but where sufficient interest exists, the Smalley Committee will make every effort to promote the check work. It is obvious that the greater the number who participate, the more significant are the averages. It is our hope that more state and federal laboratories will participate in certain phases of the work.

In the future, as in the past, this committee will not evaluate or specify methods but merely compile the results on specific determinations for the benefit of the collaborators. It should be obvious to the collaborators that close adherence to A.O.C.S. methods is necessary for good comparative results.

As V. C. Mehlenbacher pointed out in the February issue of the Journal, the foundation of any organization is service, without which it cannot survive. We believe that the check-sample program, through the Smalley Foundation Committee, has made and can continue to make a significant contribution to the continued growth and expansion of the American Oil Chemists' Society and the industry which it embraces.

R. W. Bates, chairman.