

REPORT OF THE SOYBEAN ANALYSIS COMMITTEE OF THE AMERICAN OIL CHEMISTS' SOCIETY

By R. T. MILNER, Chairman

THE Soybean Analysis Committee has conducted no collaborative work this year; hence, the tentative method must stand for another year. However, several features of this tentative method have been examined by the U. S. Regional Soybean Industrial Products Laboratory with the results summarized below.

Moisture: The possible effect on the beans of the drastic 130° C. drying has been studied. The only effect found was a decrease of about one unit in iodine number (Wijs). After heating to 130° C. the beans cannot be hydrated again to their original moisture content; whereas, if the drying is carried out at 80° C. in a vacuum oven, the original moisture is completely regained. Some change has occurred at 130°, and the properties of the protein are probably much different. Finely ground beans (3,600 RPM Bauer mill) are almost completely dried after 20 minutes at either 120° or 130° C. In two hours' additional drying, only .1 to .2 per cent more loss is noted and the weight is constant within .1 per cent if heated for an additional three hours. This steady state may also be reached by heating at 110° C., but the loss in weight is lower than that of the water found by the Bidwell-Sterling method. If this toluene distillation method is accepted as cor-

rect, three hours for whole beans and two hours for ground beans at 130° C. in a Freas forced draft will give correct values for moisture. If heating of the whole beans is continued, 0.3 per cent is lost in the fourth, and 0.15 per cent in the fifth hour. The dried ground beans are quite hygroscopic and must be handled quickly on days of high humidity.

Oil: All efforts to avoid the regrinding at the end of two hours' extraction have been unsuccessful. Although the sample was ground to pass an 80-mesh sieve, the regrinding gave 0.3 per cent more oil in a five-hour extraction, and continued extraction did not improve the yield. With regrinding, no difference could be found in oil content between a four- and a five-hour extraction. Varying the size of sample, regrinding with sand, and using Soxhlet or Smalley apparatus did not improve the present method for oil.

Even though, as mentioned above, the oil is probably slightly altered by the heat in drying, it is necessary to control the moisture before oil extraction. Differences in moisture content may produce variations of as much as 1 per cent in the oil extracted, computed to a moisture-free basis. For accurate reproducible results, adjusting the sample to some constant moisture content or

drying fairly completely is necessary. Little difference can be found in oil content if the sample is ground in a Wiley, Bauer, or Enterprise coffee mill. Further work is planned on many of these details.

It is recommended that many collaborative analyses be made following the tentative method adopted last year, with a view to making these methods official. The roster of the committee is as follows:

- C. H. Cox,
Barrow Agee Laboratories,
Memphis, Tenn.
- M. M. Durkee,
A. E. Staley Mfg. Co., Decatur, Ill.
- T. L. Rettger,
Buckeye Cotton Oil Co., P. O. Box 1638, Binghampton, Memphis, Tenn.
- S. O. Sorensen,
Archer Midland Co., 600 Ranoke Bldg., Minneapolis, Minn.
- K. L. McKinney,
The E. Kahn's Sons Co., 3241 Spring Grove Ave., Cincinnati, Ohio.
- N. F. Kruse, Central Soya Co., Decatur, Indiana.
R. T. Milner, chairman,
U. S. Regional Soybean Industrial Products Laboratory, Urbana, Ill.

REPORT OF THE JOURNAL ADVERTISING COMMITTEE

The Journal Advertising Committee was appointed by President Sheely to supplement and aid in the contacting of prospective Journal advertisers both for the purpose of additional revenue for the society and the building up of our journal as an advertising medium. The membership of the committee was chosen from a wide area and a variety of fields in order to have the benefit of as much thought and as many suggestions as possible.

Mr. Roschen, editor of the Journal, has kept in close contact with this committee throughout all of its work and his advice and help have been of great value in carrying out the work of the committee.

At the first meeting of the committee held in January, plans were made for conducting our campaign for selling advertising space. This included first a compilation of as complete a list of advertisers as possible, dividing them into thirteen sections according to the kind of business. These prospects are being solicited mainly by mail by a series of follow-up letters and in some instances by personal calls by committee members.

The magnitude of the work can be appreciated from the number of names on the prospect lists, a total of 784. The number of letters sent out to date has been 126. While we have not had sufficient time to

receive replies to all of these letters, up to date we have received 43. Of these replies about 50 per cent stated that they would not be interested until their next advertising budget is made up, which is usually in the fall, and have asked for sample copies, rate cards and circulation information, indicating a definite interest for next year. About 20 per cent indicated they would not be interested in advertising in our Journal, feeling that they were adequately taken care of in other ways or had nothing to sell our members, and about 30 per cent of the replies asked for further information.

The committee does not claim

that any of the new ads received resulted wholly from its work since Mr. Roschen and various members of the society have been working on some of these prospects for a long time. However, the committee does feel that continued solicitation on prospects who have shown some interest will result in more advertising as time goes on.

It should be understood by the members of the society that the handling of the large amount of correspondence necessary to do this job is spare time work for members of the committee and cannot proceed as rapidly as if there were no other duties to perform. The big part of the work is weeding out our lists and concentrating on the

most likely prospects. The program is one that should be continued actively, and also is one that needs the support of every member of the society. This support can be given by urging company representatives who are selling us to recommend that their companies use OIL & SOAP as one of their advertising journals.

The wide distribution of the members of the committee makes it difficult to have meetings at a central point, but everyone on the committee has cooperated in a very fine manner.

Respectfully submitted,
V. CONQUEST, Chairman,
Journal Advertising Committee.

Committee Roster:

- M. L. Sheeley,
- W. L. Taylor,
- P. E. Ronzone,
- G. G. Grant,
- B. S. Van Zile,
- L. Kishlar,
- R. C. Brett,
- R. C. Newton,
- A. S. Richardson,
- J. P. Harris,
- E. H. Harvey,
- J. D. Craig,
- H. L. Roschen,
- J. J. Ganuchau,
- C. S. Boruff,
- A. E. MacGee, Sec'y,
- V. Conquest, Chairman.

REPORT OF THE JOURNAL COMMITTEE

DURING the past year, the official journal of the Society has been published at the usual monthly intervals. There have been no major changes in size of the publication, in editorial content, or in editorial policy during this interval.

As in the past, the journal has been in a large measure dependent upon the two meetings of the Society for its editorial material. While this condition has improved somewhat, and more unsolicited papers have been received separately, the situation still leaves much to be desired.

The Journal Committee and the Editorial Advisory Board have made an effort to examine each manuscript critically, with a view toward rejection of such manuscripts as were definitely sub-standard or lacking in scientific value. This is a difficult task when the volume of material is low and when, as a result, standards of scientific excellence as high as desired cannot very well be adopted. The chairman desires, at this point, to express his thanks to all those who have assisted him in this work.

The journal has been fortunate in securing for publication during the year, some papers presented at the Rochester meeting of the American Chemical Society. At this meeting, a symposium on the Chemistry and Metabolism of Fats was held. Feeling that our journal was a logical place for publication of some of the papers, the Division of Agricultural and Food Chemistry released seven (7) manuscripts to OIL & SOAP. A group of these papers appeared in the March issue, one paper appeared in the April

issue, and the final one appeared in the May issue.

During the Summer of last year, several of our Chicago members took occasion to examine the publication contract in force between the society and the Gillette Publishing Company. It was concluded that mutual advantages both to the society and to the publishers might be gained if the contract were rewritten. Accordingly, a committee called on Mr. E. S. Gillette and found him agreeable to modifying the present contract.

A modified contract was therefore drawn up and approved by the Journal Committee. This document was subsequently submitted to the Governing Board and met with the approval of that body. It was signed by officers of the Gillette Publishing Company and the society in October and went into effect with the November issue.

The principal effect of this new agreement is to give the society a share in the gross income of the journal above a certain level. The society previously had no share in such return, and as a matter of fact has been obliged to subsidize the journal to a considerable extent.

If the society is to gain by the new arrangement it will be necessary to obtain new advertising accounts or to obtain new subscriptions to the journal in rather large volume. Once obtained, the advertising volume or subscriptions volume will need to be *maintained* on a higher level.

New advertising is obviously the better of the two sources. A journal Advertising Committee has been appointed under the leadership of Victor Conquest of Armour & Com-

pany Research Laboratories, with A. E. MacGee of Skelly Oil Company as secretary. Other members of this committee are the following:

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| M. L. Sheely | R. C. Newton |
| W. L. Taylor | A. S. Richardson |
| P. E. Ronzone | J. P. Harris |
| G. G. Grant | J. D. Craig |
| B. S. Van Zile | H. L. Roschen |
| H. A. Moore | J. J. Ganuchau |
| L. Kishlar | C. S. Boruff |
| R. C. Brett | E. H. Harvey |

A list of prospects for advertising has been prepared. The individuals on these lists are being sent a general letter from the editor of the Journal, calling attention to the advantages of advertising in OIL & SOAP. This letter is to be followed by a more specific letter from the Advertising Committee. Members of this committee are then to follow prospects individually by letter, telephone, or personal contact where possible. A report of the Advertising Committee will probably add more details.

It is hoped that this program will eventually eliminate the subsidies which the society is now obliged to give the Journal and result ultimately in a modest net profit.

The aid of all members is enlisted in this program.

- T. C. LAW,
- E. R. BARROW,
- A. F. SANCHEZ,
- J. P. HARRIS,
- L. M. TOLMAN,
- H. P. TREVITHICK,
- N. C. HAMNER,
- J. J. VOLLERTSEN,
- H. L. ROSCHEN, Chairman.