

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 Roanoke 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