A. O. C. S.

Committee Reports

Report of Referee Board 1929-30

THE Referee Board considered and granted Limited Referee Chemists' on all Products Covered by the Rules of the National Cottonseed Products Association to the following:

E. R. Barrow, Barrow-Agee Labs., Inc., Memphis, Tenn.; W. J. Bramblett, Texas Testing Labs., San Antonio, Texas; H. M. Bulbrook, Industrial Labs., Fort Worth, Texas; B. L. Caldwell, Barrow-Agee Labs., Inc., Jackson, Miss.; P. D. Cretien, Texas Testing Labs., Dallas, Texas; Curtis & Tompkins, 236 Front St., San Francisco, California; D. B. Dickson, San Antonio Labs., San Antonio, Texas; R. H. Fash, Fort Worth Labs., Fort Worth, Texas; L. B. Forbes, L. B. Forbes Labs., Little Rock Arkansas; N. C. Hamner, Southwestern Labs., Dallas, Texas; J. C. P. Helm, 705 Tchoupitoulas St., New Orleans, La.; R. G. Huffman, Geo. W. Gooch Labs., Los Angeles, Calif.; N. E. Katz, P. O. Box 243, Meridian, Mississippi; Laucks Laboratory, 314 Maritime Bldg., Seattle, Washington; T. C. Law, Law & Company, Atlanta, Georgia; S. Lomanitz, General Labs., Oklahoma City, Okla.; J. R. Mays, Jr., Barrow-Agee Labs., Inc., Shreveport, La.; D. C. Picard, 4th Ave. & 20th Sts., Birmingham, Ala.; F. B. Porter, Fort Worth Labs., Fort Worth, Texas; A. H. Preston, Southwestern Labs., San Antonio, Texas; C. W. Rice, P. O. Box 538, Columbia, S. Carolina; F. R. Robertson, Houston Labs., Houston, Texas; F. C. Schilling, Industrial Labs., Fort Worth, Texas; H. M. Shilstone, 510 Gravier St., New Orleans, La.; P. McG. Shuey, Shuey & Co., Inc., Savannah, Georgia; J. H. Sorrels, Terrell's Labs., Fort Worth, Texas; E. H. Tenent, L. B. Forbes Labs., Little Rock, Ark.; E. G. Williams, Baronne Bldg., New Orleans, Louisiana; G. K. Witmer, The Battle Laboratory, Montgomery, Alabama.

Limited Referee Certificates on Cake & Meal work only were granted to R. M. Chapman, Indiana Labs., Hammond, Indiana and to Wiley & Company, Inc., Calvert & Read Sts., Baltimore, Md.

Full Referee Certificates on All Products were granted to F. Paquin, Galveston Laboratory, Galveston, Texas and H. P. Trevithick, Bureau of Chemistry, New York Produce Exchange, New York, New York.

During the year the Referee Board sent out two check samples of Crude Oil to the Referee Laboratories. The results on the first sample sent out which was a sample of Prime Crude Oil with a free acid of about 1% showed considerable variation in both loss and color. Unfortunately the second sample of Crude Oil sent out was very abnormal in its behavior, the free acid results varying from 1.5% to 3.0% although all the samples were handled at approximately the same time in the several Referee Laboratories. The color results and refining loss results varied so widely that they were practically valueless. Tabulations covering the results obtained on these samples after eliminating the names of the Referee Laboratories were placed in the hands of the Refining Committee for their consideration.

A check sample of Yellow Oil was also sent out to the Laboratories and all Referees were asked to make the reading on the same day. While the majority of the results in this instance were in fair agreement, the range was much too wide. These results emphasize the necessity for the adoption of a standard tintometer and method of reading color. These results were referred to the Color Committee for their consideration.

The Referee Board recommends to the new Referee Board that the sending out of check samples to the Referee Laboratories be continued.

W. H. IRWIN, *Chairman*
W. R. STRYKER
H. ASPEGREN
L. C. HASKELL
F. PAQUIN

Report of Sampling Committee

THE committee has carefully studied the work done by the previous committee, also made investigation of commercial samplers (triers) now on the market and have unanimously come to the conclusion that none of the samplers (triers) now offered for sale or advertised as Official Oil Samplers, complies with the rules of the National Cottonseed Products Association. The committee has unanimously agreed that Official Oil Samplers (triers) in order to comply fully with the requirements, Rule 242, Section 2, should meet the following specifications:

1. Uniform inside diameter of 2 inches (equal to 3.14 sq. in.)

2. Should remain fully open as it passes through the oil and close only after the bottom of the tank is reached.
3. Must have a smooth inside finish so as to prevent accumulation of dirt and moisture and facilitate cleaning.
4. Must be of simple construction; be able to withstand rough handling without damage, particularly to the valve mechanism.
5. Must be light and well balanced so that the sample may be taken vertically without difficulty.
6. Must be of such construction that the human element when taking sample will be as much as possible eliminated; that is, same sample will be obtained whether the trier is inserted or withdrawn fast or slow.
7. Should be so constructed that sample can be obtained to within ¼ inch (or less) of the bottom of the tank.

On this basis the committee found that only one sampler (trier) submitted to the committee meets the requirements, sampler (trier) No. 5, described in previous committee's report. This sampler (trier) has been approved by the committee and will hereafter be referred to as "Official Oil Trier, Type 1" described as follows:

> "This trier consists essentially of a specially designed valve housing and plug (plug cock type) having 2 inch diameter unrestricted opening when fully opened. The opening and closing mechanism is so designed that the valve when inserted in tank will be fully open and after the valve reaches the bottom, same can be tightly closed. The trier when properly constructed will take sample to within ¼ inch of the bottom of the tank."

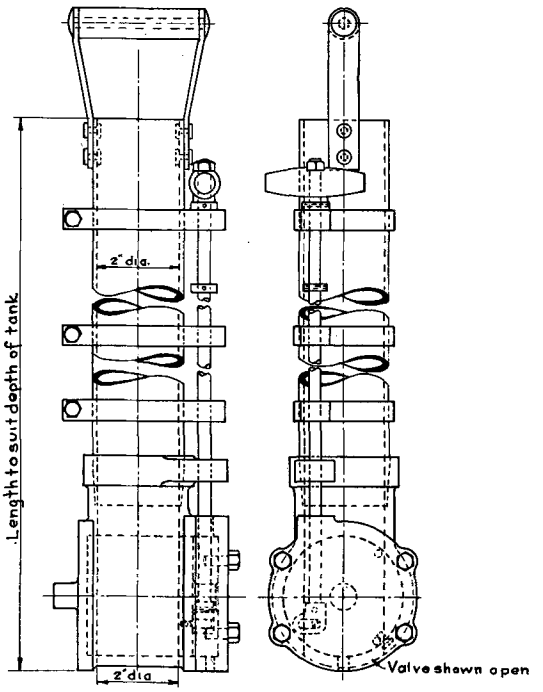
The committee recommends the following changes to be made in the rules of the National Cottonseed Products Association, page 103, (insert the words shown in capitals):

> That the sample was taken vertically through the Oil with a CLEAN AND DRY OFFICIAL trier of uniform diameter . . . . The sample was taken AS PER RULE 242, SECTION 2, so as . . . .

page 105, Rule 242, Section 2, (insert the words shown in capitals):

> Oil, if in tank cars, must be taken vertically through the Oil with a CLEAN AND DRY OFFICIAL trier of uniform diameter . . .

The matter of interpretation of the rules should properly be left to some other committee, however your committee wishes to call to your attention that if our recommendations



OFFICIAL OIL TRIER – TYPE 1
The American Oil Chemists' Society
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be accepted and incorporated in the rules, it will be necessary to allow a certain time limit in order to enable everybody concerned to supply themselves with at least one Official Oil Trier, Type 1; after this time limit has expired, a sample is not and cannot be an official sample unless taken with an official trier and the official method followed in taking sample and if samples are taken which are not official, it shall be so stated on certificate.

By "clean and dry" we understand that if same or similar oils are being sampled, it is not necessary to clean the trier each time, however when different kinds of oils are being sampled or when refined oils are being sampled, it is absolutely necessary that trier, before being used, previously has been cleaned and dried—this, of course, also applies to containers in which the sample is being placed.

The committee recommends that in future, before any other type of trier is accepted as official trier, same should be passed by the sampling committee and that no trier be sold or advertised as official trier unless recommended by sampling committee and approved by the American Oil Chemists Society. Further, that rules and regulations governing sampling of oils and interpretations of these rules be printed and furnished in pamphlet

form to all official inspectors, samplers and weighers or any other persons doing this class of work.

Respectfully submitted,

(Signed) J. W. BODMAN
R. A. DUNCAN

(Signed) W. C. MOOR
E. F. SAINT PE

V. SERBELL, *Chairman*

Committee on Reprinting Methods

THE changes in the Official Methods adopted at the last meeting of the American Oil Chemists' Society made necessary the reprinting of the first ten pages of the methods. Arrangements were made with the Lefax Company for the printing of these methods at a cost of approximately $85.00 for 2,500 copies.

Unfortunately in a number of instances the Methods of the A. O. C. S. and the methods printed in the Rule Book of the National Cottonseed Products Association are not identical. This is due in part to the fact that some of the methods were not submitted to the Chemists' Committee of the National Cottonseed Products Association for their consideration.

It is very essential that all new methods and changes in old methods be placed in the hands of the Chemists' Committee prior to the meeting of the Rules Committee of the National Cottonseed Products Association in order that they may be adopted and incorporated in the Rules.

In printing the Methods of the A. O. C. S. the Soap Methods were not included. Since these methods are the Official Methods of the Society I recommend that they be added to the Methods when the corrections are made for the coming year.

W. H. IRWIN, *Chairman*

Report of Moisture Committee

THE Moisture Committee this year decided not to send out any cooperative samples but to collect the data on the moisture determination as reported by the collaborators who used the Official Oven of the A.O.C.S. on the Smalley Check Meal Samples. The maximum number of laboratories using the Official Oven was twenty-five and of these the figures of three laboratories were left out of consideration for the reason that they were consistently high or low on practically all samples reported.

In the early part of the work the results were rather poor but there was a decided improvement beginning with the ninth sample. Two tables are given below covering the data collected. In the first table it is to be noted that the spread between the collaborators using the Official Oven is less than half of that reported by those using other types of ovens. The second table covers the work of the individual laboratories and indicates that if conditions are properly watched very close results can be obtained.

The Moisture Committee feels that a great many laboratories do not attach sufficient importance to the determination of moisture. If good results are to be obtained proper attention must be given to the operation of the Oven, the condition of the desiccator, prompt weighing after cooling, etc.

Some of the first Official Ovens manufactured were not satisfactory for the reason that the seams were soldered and leaks developed. This difficulty has now been overcome and satisfactory ovens with brazed seams are available on the market.

The Moisture Committee recommends that for the season of 1930-31 further data be collected covering the moisture determinations on the Smalley Check Meal Samples.

W. H. IRWIN, *Chairman*
N. C. HAMNER
J. D. EVANS
E. W. MAGRUDER
E. H. TENENT

(*Turn to Page* 193)

The General Foods Corporation reports combined net earnings for 1929, including earnings of subsidiaries prior to acquisition, of $20,519,046, equivalent to $3.89 a share on the 5,274,527 shares outstanding on Dec. 31, 1929. The net, excluding operations of subsidiaries prior to acquisition, was equivalent to $3.68 a share, compared with $14,555,683, or $3.10 a share on 4,682,736 shares outstanding on Dec. 31, 1928. Colby M. Chester, Jr., president, says in his letter to stockholders that the ratio of net quick assets to liabilities was 3.7 to 7, representing a decline from the previous year due to "heavy cash disbursements as part purchase price for new companies, purchase of General Foods stock in the open market, and advances to Frosted Foods Company, Inc." The balance sheet discloses total assets of $70,503,782 against $56,546,699 at the close of 1928, while current surplus is $11,824,177 against $9,293,342.

Moisture Results on Smalley Cooperative Samples

(*From Page* 191)

Sample No.	Number of Figures by Official Oven	Official Oven Number within 0.3% of average	Official Oven % within 0.3% of average	Official Oven average % moisture	Official Oven figures spread between high and low	All other figures spread between high and low
1.	21	14	66.3	7.55	0.86	2.01
2.	21	13	61.9	8.64	1.62	3.57
3.	21	16	76.2	8.60	1.08	2.46
4.	22	16	72.7	8.12	1.02	2.25
5.	21	15	71.4	8.53	1.04	3.45
6.	22	17	77.3	8.11	1.34	3.30
7.	22	15	68.2	6.52	1.35	2.88
8.	19	12	63.1	6.91	1.30	2.58
9.	20	15	75.0	7.11	0.96	2.14
10.	20	17	90.0	7.29	1.90	2.58
11.	19	14	73.7	6.53	1.56	3.36
12.	20	16	80.0	7.00	1.60	2.07
13	20	18	90.0	6.36	0.67	2.49
14.	20	15	75.0	6.17	1.01	2.79
15.	19	16	84.2	6.22	1.11	3.16
16.	21	19	90.5	6.48	0.72	1.44
17.	21	19	90.5	6.73	0.72	0.96
18.	21	20	95.2	6.43	0.60	2.34
19.	22	20	90.9	6.15	0.77	1.51
20.	21	20	95.2	6.21	0.58	1.72
21.	22	20	90.9	6.22	1.33	2.07
22.	20	17	85.0	6.18	0.69	1.83
23.	22	21	95.5	6.14	0.66	1.78
24.	22	19	86.4	5.97	0.96	2.70
25.	22	18	81.8	5.82	0.87	1.38
26.	22	18	81.8	5.80	1.15	1.42
27.	22	17	77.3	5.54	0.97	1.60
28.	21	19	90.5	5.92	0.61	1.46
29.	22	20	90.9	5.93	0.83	2.17
30.	21	19	90.5	5.97	0.68	1.69
AVERAGE			81.9		1.02	2.24

Moisture Results on Smalley Cooperative Samples Using Official Oven

Analyst No.	Standing	Number of samples reported	Number of results more than 0.3% higher than average	Number of results more than 0.3% lower than average	Number of results within 0.3% of average	% of results within 0.3% of average
12	1	30	0	0	30	100.0
53	2	29	1	0	28	96.6
1	3	30	1	1	28	93.3
79		30	0	2	28	93.3
80		30	0	2	28	93.3
59	4	25	2	0	23	92.0
73	5	21	2	0	19	90.5
28	6	30	3	0	27	90.0
40		30	0	3	27	90.0
39	7	30	4	0	26	86.7
49	8	30	0	6	24	80.0
64		30	4	2	24	80.0
84	9	18	1	3	14	77.8
65	10	26	1	5	20	76.9
56	11	30	3	4	23	76.7
57		30	7	0	23	76.7
81	12	30	6	2	22	73.3
24	13	30	7	2	21	70.0
48		30	2	7	21	70.0
52		30	3	6	21	70.0
55	14	30	0	10	20	66.7
92	15	29	0	11	18	62.1