

REPORT OF THE SMALLEY FOUNDATION COMMITTEE, AMERICAN OIL CHEMISTS' SOCIETY 1937-1938

WE are presenting herewith the 20th report of the Smalley Foundation Committee of the American Oil Chemists' Society. During these past twenty years considerable progress has been made in the accuracy of the determination of Oil and Ammonia on cottonseed meal.

As usual, thirty samples of cottonseed meal were distributed to the collaborators. Last year we reported that the results were somewhat lower than they had been in 1936. We are glad to state that during the present season there has been a general improvement.

Owing to the fact that the Association of American Feed Control Officials and the Fertilizer Associations require that nitrogenous constituents be reported as nitrogen rather than ammonia, it was decided that we should conform to the general practice. For this reason our reports this year are expressed in that manner.

There are attached to this report four tables, indicating the standing in percentage of the members taking part. Table No. 1 gives the standing of 59 collaborators who reported Oil determinations on all samples. Table No. 11 gives the standing of 62 collaborators who

reported Nitrogen results on all samples. Table No. III gives the standing of 59 collaborators who reported Oil and Nitrogen on all samples. In these tables we have taken into consideration the results of those reports which were received within the time specified in our original announcement of the Smalley Foundation work. In table No. IV we have given the standing of those collaborators who reported on all samples, but some of whose reports were received too late to be included under the rules.

The winning collaborators are as follows:

The "American Oil Chemists' Society Cup" for the highest efficiency in the determination of both Oil and Nitrogen on all samples is awarded to Analyst No. 17, Dr. W. F. Hand, Mississippi State College, State College, Miss., with an average of 99.959 per cent. The average efficiency is higher than that of last year, which was 99.944 per cent. The certificate for second place goes to analysts Nos. 10 and 16, L. E. Norem of Armour & Company, Chicago, Illinois, and A. G. Thompson, Jr., Southern Cotton Oil Company, Columbia, S. C., who had an efficiency of 99.952 per cent, as compared with 99.930 per cent for last year.

The certificate for the highest efficiency in determination of Oil only is awarded to Analyst No. 17, Dr. W. F. Hand, Mississippi State College, State College, Miss., with an average of 99.971 per cent, as compared with 99.915 per cent for last year. The certificate for second place goes to Analyst No. 16, A. G. Thompson, Jr., Southern Cotton Oil Company, Columbia, S. C., with an efficiency of 99.947 as compared with 99.898 per cent for last year.

The certificate for the highest efficiency in the determination of Nitrogen is awarded to Analysts Nos. 10 and 71, L. E. Norem, Armour & Company, Chicago, Illinois, and A. C. Summers, State Chemist, Columbia, S. C. with an average of 99.990 per cent, as compared with 99.985 for last year. The certificate for second place goes to Analysts Nos. 41 and 81, The Barrow-Agee Laboratories, Memphis, Tenn., and P. D. Cretien, Texas Testing Laboratories, Dallas, Texas, with an average of 99.981 per cent, as compared with 99.973 per cent for last year.

We thought it might be well to include in this report a list of the previous winners of the highest award for both Oil and Ammonia. They are as follows:

1918-1919	G. C. Hulbert	Southern C. O. Co., Augusta, Ga.
1919-1920	G. C. Hulbert	Southern C. O. Co., Augusta, Ga.
1920-1921	C. H. Cox	Barrow-Agee Lab's, Memphis, Tenn.
1921-1922	Battle Lab's	Montgomery, Ala.
1922-1923	Battle Lab's	Montgomery, Ala.
1923-1924	L. B. Forbes	Memphis, Tenn.
1924-1925	E. H. Tenent	International Sugar Feed Co. No. 2, Memphis, Tenn.
1925-1926	Battle Lab's	Montgomery, Ala.
1926-1927	W. F. Hand	Miss. State College, State College, Miss.
1927-1928	E. H. Tenent	International Sugar Feed Co., Memphis, Tenn.
1928-1929	Geo. W. Gooch Lab's	Los Angeles, Calif.
1929-1930	Southwestern Lab's	Dallas, Texas
1930-1931	W. F. Hand	Miss. State College, State College, Miss.
1931-1932	J. N. Pless	Royal Stafolife Mills, Memphis, Tenn.
1932-1933	J. B. McIsaac	International Veg. Oil Co., Savannah, Ga.
1933-1934	W. F. Hand	Miss. State College, State College, Miss.
1934-1935	W. F. Hand	Miss. State College, State College, Miss.
1935-1936	N. C. Hamner	Southwestern Lab's, Dallas, Texas
1936-1937	N. C. Hamner	Southwestern Lab's, Dallas, Texas
1937-1938	W. F. Hand	Miss. State College, State College, Miss.

We wish again to commend the careful and painstaking work of T. C. Law in the preparation and distribution of samples. As we have stated previously, few of us realize the amount of work required to handle this phase of our collaborative endeavors and members as a whole should be grateful to him for assuming this burden.

TABLE No. I
Determination of Oil

Analyst No.	Points Off	Percent Efficiency
17	6	99.971
16	11	99.947
10	18	99.914
33	24	99.886
78	25	99.881
19	28	99.867
9	29	99.861
11	31	99.853
67	32	99.847
54	34	99.839
66	35	99.833
2-81	36	99.829
28	38	99.819
41-63	39	99.814
27-64	40	99.810
40-55	42	99.800
29-69	43	99.796
68-71	45	99.786
6	47	99.776
14-38	50	99.761
74	52	99.753
5	61	99.710
37	63	99.700
8-48	68	99.676
39-51-61	70	99.667
35	73	99.653
45	77	99.633
30-56	78	99.628
50	82	99.610
3	89	99.575
52	93	99.557
47	94	99.553
25	119	99.433
31-44	122	99.418
42	124	99.410
72	134	99.361
34	146	99.304
1	147	99.300
4-46	161	99.233
77	165	99.214
12	170	99.190
7	171	99.185
65	202	99.038
60	377	98.204
32	409	98.052
76	630	96.999

TABLE No. II
Determination of Nitrogen

Analyst No.	Points Off	Percent Efficiency
10-71	2	99.990
41-81	4	99.981
6-12	5	99.975
9	7	99.967
2-18-54	8	99.961
14-16-19-29-40-78	9	99.957
5-30-67	10	99.952
17-39-45-65	11	99.947
44	12	99.942
27-61-62	13	99.938
7-37	15	99.928
34-64	16	99.923
38-50	19	99.909
69	20	99.903
28-42-55	21	99.899
3	22	99.895

8	24	99.884	48	99.739
35	30	99.855	3	99.735
11	31	99.851	63	99.714
33	32	99.845	44	99.680
72	35	99.831	56	99.677
51	37	99.822	47	99.676
48	41	99.802	42	99.655
47	42	99.798	52	99.641
46-66	48	99.769	34	99.614
74	49	99.764	72	99.596
77	53	99.744	12	99.583
4	54	99.740	7	99.557
52-56	57	99.725	31	99.536
68	61	99.707	75	99.505
31	72	99.653	46	99.501
63	80	99.614	65	99.493
32	82	99.605	4	99.487
75	88	99.577	77	99.479
24	92	99.556	1	99.405
1	102	99.509	32	98.829
76	106	99.490	60	98.719
60	159	99.234	76	98.245

TABLE No. III
Determination of Oil and Nitrogen

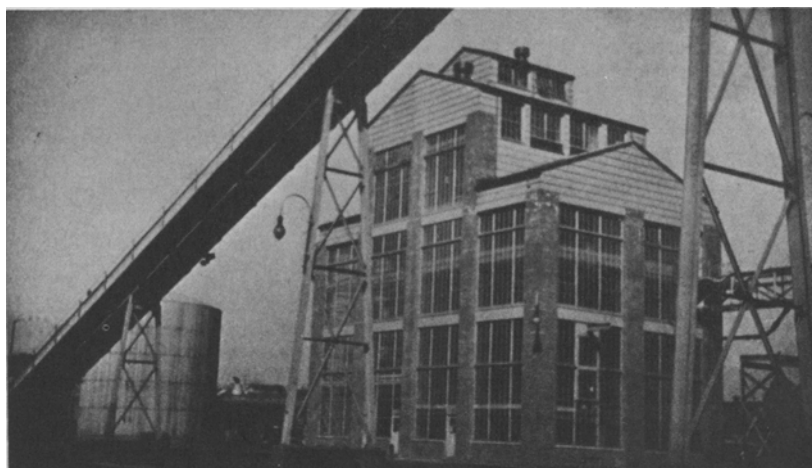
Analyst No.	Percent Efficiency
17	99.959
10-16	99.952
78	99.919
9	99.914
19	99.912
81	99.905
54-67	99.900
41	99.898
2	99.895
71	99.888
40	99.879
29	99.877
6	99.876
27	99.874
64	99.867
33	99.866
14-28	99.859
11	99.852
55-69	99.850
38	99.835
5	99.831
37	99.814
39	99.807
61	99.803
66	99.801
30-45	99.790
8	99.780
50	99.760
74	99.759
35	99.754
68	99.747
51	99.745

TABLE No. IV
Special Table

Analyst No.	Points Off	Percent Efficiency
Determination of Oil		
80	109	99.481
15	111	99.471
73	114	99.457
Determination of Nitrogen		
13	10	99.952
15	25	99.880
73	34	99.837
25	42	99.798
80	54	99.740
26	147	99.292
Determination of Oil and Nitrogen		
15		99.676
73		99.647
80		99.611

Personnel of committee:

- B. L. CALDWELL,
- T. C. LAW,
- W. C. MOOR,
- J. N. PLESS,
- E. H. TENENT,
- M. E. WHITTEN,
- J. J. VOLLERTSEN, Chairman.



Solvent Extraction Plant for Corn Germ—Hiram Walker & Sons, Peoria, Ill.