REPORT

SMALLEY FOUNDATION COMMITTEE

The tables attached to this report summarize the results of the cooperative analytical program of the Smalley Foundation for the past year. The program was concluded, as usual, with thirty samples. There were 81 collaborators participating, as compared to 76 for the season 1932-1933, and 80 for the season 1931-1932.

In Table No. 1 we show the standing of the 60 collaborators who reported oil determinations on all samples. In the two preceding years 49 and 50, respectively, reported oil determinations on all the samples.

Table No. 2 shows the standing of 67 collaborators who reported ammonia results on all samples. This number compares with 55 and 62, respectively, for the two preceding seasons.

Table No. 3 gives the average for both oil and ammonia for the 60 collaborators who reported oil and ammonia on all samples. In the two preceding seasons 49 and 50 collaborators, respectively, reported oil and ammonia on all samples.

The winning collaborators are as follows:

The Battle Cup for the highest efficiency in the determination of both oil and ammonia on all samples is awarded to Analyst No. 73, 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 99.914 per cent. The certificate for second place goes to Analyst No. 18, the Southwestern Laboratories of Dallas, Texas, with an efficiency of 99.952, as compared with 99.889 for last year. This certificate was won by Dr. W. F. Hand last year.

The certificate for the highest efficiency in determination of the oil only is awarded to Analyst No. 25, Mr. D. B. McIsaac, International Vegetable Oil Company, Savannah, Ga., with an average of 99.952, as compared with 99.961 for last year. Mr. McIsaac won this certificate last year also. The certificate for second place goes to Analysts Nos. 65 and 73, Mr. A. G. Hayes of Memphis, Tenn., and Dr. W. F. Hand of the Mississippi State College, with an efficiency of 99.946, as compared with 99.899 for last year.

The certificate for the highest efficiency in the determination of ammonia is awarded to Analyst No. 12, the Barrow Agee

TABLE No. I

Analyst No.	Points Off	Per Cent Efficiency	Analyst No.	Points Off	Per Cent Efficiency
25	10	99.952	9	61	99.704
65	11	99.946	52	61	99.704
73	11	99.946	13	66	99.680
18	12	99.942	22	66	99.680
51	17	99.917	63	66	99.680
4	17	99.917	28	68	99.669
64	17	99.917	72	68	99 669
1	18	99.913	47	70	99.661
24	21	99.898	11	71	99.655
53	23	99.888	3	72	99.651
6	26	99.873	21	79	99.617
57	26	99.873	38	83	99.597
14	31	99.850	45	88	99.573
29	32	99.844	62	94	99.544
71	32	99.844	48	97	99.530
5	33	99.840	2	99	99 519
32	35	99.830	80	101	99.509
15	38	99.815	43	102	99.505
75	38	99.815	70	103	99.501
50	41	99.800	40	104	99.496
55	41	99.800	78	106	99.486
12	43	99.792	19	111	99.461
10	45	99.782	60	117	99.432
16	48	99.767	54	125	99.393
49	50	99 757	27	138	99.330
69	52	99.748	68	139	99.326
20	52	99.748	30	169	99.180
59	57	99.723	17	179	99.131
7	57	99.723	58	186	99.097
8	60	99.709	76	201	99.024

TABLE No. II

Analyst No.	Points Off	Per Cent Efficiency	Analyst No.	Points Off	Per Cent Efficiency
12	4	99.983	7	46	99.804
41	7	99.970	8	46	99.804
73	7	99.970	70	46	99.804
18	9	99.961	9	48	99.795
1	10	99.958	49	48	99.795
65	11	99.952	32	51	99.782
25	12	99.949	14	54	99.769
3	13	99.945	43	54	99.769
46	13	99.945	39	56	99.760
28	14	99.940	63	56	99.760
50	14	99.940	30	57	99.756
64	16	99.932	62	58	99.752
15	17	99.927	29	59	99.747
57	17	99.927	17	63	99.730
20	18	99.923	55	72	99.692
53	19	99.919	38	75	99.679
5	20	99.914	68	75	99.679
6	22	99.906	78	75	99.679
75	22	99 906	58	78	99.666
47	23	99.901	76	81	99.653
27	25	99.893	19	84	99.640
59	26	99.888	60	88	99.624
4	27	99.884	10	90	99.615
51	27	99.884	33	104	99.552
71	27	99.884	52	108	99.538
13	28	99.881	54	123	99.474
22	29	99.875	48	124	99 470
11	31	99.868	45	125	99.465
16	32	99.863	21	133	99.431
2	34	99.855	72	139	99.405
42	34	99.855	35	151	99.354
80	34	99.855	40	154	99.341
69	42	99.820	34	174	99.255
24	45	99.807			

TABLE No. III

Analyst No.	Per Cent Efficency	Analyst No.	Per Cent Efficency
73	99.959	49	99.777
18	99.952	11	99.768
25	99.950	7	99.766
65	99.950	8	99.759
1	99.937	9	99.752
64	99.925	55	99.743
53	99.904	63	99.722
57	99.902	2	99.698
4	99.900	10	99.693
51	99.900	80	99.693
12	99.894	70	99.662
6	99.891	62	99.655
5	99.879	43	99.645
50	99.874	38	99.640
15	99.874	27	99.629
71	99.866	52	99.616
75	99.864	78	99.589
24	99.850	19	99.556
20	99.841	60	99.534
16	99.818	72	99.529
28	99.813	21	99.518
59	99.811	45	99.516
14	99.807	68	99.513
3	99.807	48	99 498
32	99.804	30	99.486
29	99.793	17	99.449
47	99.788	54	99.436
69	99.786	40	99.414
13	99.786	58	99.400
22	99.784	76	99.359

Laboratories of Memphis, Tenn., with an average of 99.983, as compared with 99.930 for last year. The certificate for second place goes to Analysts Nos. 41 and 73, Mr. O. L. Nolan, Connecticut Agricultural Experiment Station of New Haven, Conn., and Dr. W. F. Hand of the Mississippi State College, with an average of 99.970, as compared with 99.925 for last year. Mr. Nolan was awarded this certificate last year also.

The foregoing comparisons show that the percentage efficiency for oil is lower than last year, while the percentage efficiency for ammonia is higher. The percentage efficiency for the combined oil and ammonia work is higher than last year.

The Laboratory Cup for highest efficiency in both Oil and Ammonia was permanently awarded to the Battle Laboratories, Montgomery, Ala., in 1926, they having had the highest efficiency in 1922, 1923 and 1926. A new cup was presented the Society by the late Dr. H. B. Battle in 1926. This cup has since been known as the Battle Cup.

This year the cup is awarded to Dr. W. F. Hand, who also was awarded the cup in 1927 and 1931. The Battle Cup now becomes the permanent possession of Dr. W. F. Hand.

In concluding this report your Committee feels that the Society owes again to Mr. Thos. C. Law a tremendous debt for his care and attention in preparing and mailing the samples.

Personnel of Committee:

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