Report of the Pot Cook Cellulose Yield Committee 1940-41

DURING 1940 work of the Cellulose Yield Committee consisted largely of sending out check samples of lint and hull fibre to all laboratories equipped with the proper equipment for running the tests.

The following table gives the results obtained on the three lint and two hull fibre samples sent out:

YIELDS

Laboratory No.	Lint B-1	Lint B-2	Lint B-3	H. F. B-4	H. F. B-5	Group Average Lint	Group Average H.F.	Group Average Overall Lint & H.F.
1*	79.3	76.7	69.9	69.8	63.0	75.3	66.4	71.7
2*	78.7	76.5	69.7	69.8	62.0	75.0	65.9	71.3
3	79.2	76.0	70.7	70.3	63.3	75.3	66.8	71.9
4*	79.2	76.3	70.1	69.8	62.5	75.2	66.2	71.6
5	78.8	76.3	70.7	70.1	63.0	75.3	66.6	71.8
6*	79.3	76.6	70.6	70.4	64.1	75.5	67.3	72.2
7*	78.3	75.8	68.8	71.4	66.2	74.3	68.8	72.1
8	79.3	76.9	70.3	70.3	64.1	75.5	67.2	72.2
9	80.0	76.8	70.8	70.6	63.3	75.9	67.0	72.3
10*	78.7	76.6	70.8	69.8	62.1	75.4	66.0	71.6
11	79.6	76.6	70.8	70.8	64.4	75.7	67.6	72.4
12	79.5	77.3	69.7	70.4	62.9	75.6	66.7	72.0

*Members of Pot Cook Yield Committee.

All above results are calculated to 7% lint moisture basis.

The yields as a whole show very good checks on the samples sent to the different laboratories.

A few high results were obtained by some laboratories particularly on hull fibre (H. F.). These high results are probably due to improper washing which in turn is due to not enough water passing through the sprays. This should be checked several times a week.

Previous to the sending out of the samples a few complaints were received that different laboratories were not checking. If the complaints were justified, and it is believed that some were, it can safely be assumed that some laboratories were not following the method in detail.

Another complaint was registered with the committee that certain poor grades of hull fibre will plug the washing screen and give high results, particularly if the washing procedure is not followed closely. This condition was known to the originators of the method, and so stated in the original paper published August, 1937, in Oil & Soap, but since the amount of hull fibre of this type is very small and of a grade that has little commercial value it was thought that visual inspection would warn the buyer when the fibre contained large hulls or very short fibres, conditions under which screen plugging takes place giving high results, and compensate for this in the price paid if they purchased such type of fibre. The reason why high results are obtained on such type fibre is that either the hulls or the short fibres plug the screen due probably to insufficient draining. With less water and a longer washing time it is possible that no screen plugging will take place. More work will be done on this the coming year. The fact that some laboratories have no trouble washing fibre of the above type at present, indicates that the method is no being followed closely.

The committee has designated the following companies to build the equipment for the yield tests. The cooking pots, washing machine and lint mixer can be obtained from Wm. C. Ellis & Sons, Memphis, Tenn. The digester or autoclave can be obtained from the Memphis Welding Co., Memphis, Tenn.

Recommendations

The following recommendations are made:

(1) That check samples be sent out in September of 1941, at the beginning of the season, and every three or four months thereafter.

(2) That the tentative status of the method be maintained for another year.

(3) That more work be done on the off-grade hull fibre to determine if it can be washed satisfactorily.

(4) That the present committee be reappointed so that present work can be continued.

(5) That the name of the method be changed from "The Pot Cook Cellulose Yield Method" to "The American Oil Chemists' Society Cellulose Yield Method."

Pot Cook Cellulose Yield Committee.
E. C. Ainslie
M. G. Boulware
C. H. Cox
W. S. Hude
E. H. Tenent
L. N. Rogers, *Chairman.*

Report of the Sampling Committee 1940-41

DURING the year the committee has tested and tentatively approved the following samplers, which may be used for sampling oils under certain conditions by experienced and certified samplers:

Carpinello liquid sampler, made by the American Instrument Company, 8020 Georgia Ave., Silver Springs, Md. This sampler is of particular value when it is necessary to find out the amount of free water present. It may be used for sampling oils, whether in barrels, tankcars, or deep tanks. This sampler was described in Oil & Soap, April, 1939.

Bacon Bomb sampler, made in sizes from 4 oz. to 32 oz., distributed by R. P. Cargille, 118 Liberty St., New York City. Depending on size, this may be used for sampling barrels or deeptanks. The sampler is so constructed that it will pick up sediment or water directly from the bottom.

Curtis & Tompkins' deeptank sampler, and drum sampler, made by Curtis & Tompkins, Ltd., 236 Front St., San Francisco, Calif.

The deeptank sampler is primarily constructed to take samples of liquid oils from ships' tanks, land storage tanks, or tankcars. The instrument makes it possible to take a sample from any section of a tank.

The drum sampler may be used for sampling barrels. The diameter and length of the sampler must be specified in each particular case.

The committee recommends that: