suggestions. Miss E. G. Martin has obtained most of the experimental data, and her help in preparing the manuscript is gratefully acknowledged.

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Report of Cellulose Yield Committee 1948-1949

FOUR sets of samples of cotton linter pulp, of three different grades, were checked by 10 different laboratories during the past year. One laboratory, number 9, reported only three sets of results so these are not included in the over-all average for the year. The average yield results for the three types of linters sent out are given below:

Lab. No.	No. Sets Samples Tested	Samples			Over-all Average for Year
		A Linters	B Linters	C Fiber	
1	4	79.8	73.8	69.7	74.4
2	4	80.1	73.1	69.4	74.2
3	4	79.5	73.5	68.7	73.9
5	4	79.9	73.4	69.4	74.2
6	4	80.5	73.7	68.4	74.2
7	4	79.6	72.9	68.2	73.6
8	4	80.2	74.7	70.1	75.0
9	3*	79.0	72.5	69.1	73.5
10	4	80.2	73.5	68.9	74.2
11	4	80.0	74.0	69.9	74.6
Avg.	....	80.0	73.6	69.2	74.3

* Not included in average.

Another laboratory, number 4, which had been checking samples for the past 12 years, dropped out of the checking group due to not having time to make the tests and also stated that since practically identical yields were obtained by all laboratories, they did not think it worthwhile to continue running the routine check samples.

During the year one of the laboratories had to replace the screens in their washers, which were giving low yields; another had to replace the spray pipes. It should be mentioned that both of these conditions should be watched closely and possibly should be changed every two or three years as the holes in the screens and spray pipe increase in size. These should be checked first if low results are obtained.

Considering the fact that cotton linter pulp is very non-uniform in composition and therefore in the cellulose yield, the above results are excellent checks. It has been suggested by some that these check samples be omitted due to the good check results which are obtained. However, the fact remains that during each year there are at least one or two laboratories whose results get out of line but are immediately brought back after finding the trouble, which is usually not too hard to find. For this reason, it is thought that these checks are very valuable in keeping all of the equipment in good working condition as some of this equipment is not used too often in some of the laboratories.

It should be pointed out that this method is not applicable to low hull fiber yields, i.e., below 55%. Hull fiber of this very low grade has very little value and should not be made in the first place. It can be estimated close enough by visual inspection by the purchaser so that agreement can be reached on price without yield test. About one such incident occurs in the country per year. Work will be done next year to see if the method can be amended to include these isolated cases.

Recommendations: It is recommended that samples be sent out to all members of the Cellulose Yield Committee and to laboratories which have been participating in the past in these check samples. Also to any other laboratory which requests in writing, to the Cellulose Yield Committee Chairman, that they would like to be included in this check group. Four sets of samples should be sent out during the next year: one in August, one in October, one in December, and one in February.

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