the iodine value is 150 and the thiocyanogen value is 80, the glyceride content may be calculated by aligning the figures 15 and 8 on the iodine value and thiocyanogen value scales.

When linolenin is present and using the nomographs for equations (7) and (9) shown in Figure 2, for calculation of the linolenin content, iodine and thiocyanogen values on the a- and e-scales are aligned and a point is marked where this line intersects the α-axis. The point on the α-axis is then aligned with that for the saturated glyceride content on the h-scale, and the percentage of linolenin is read on the f-scale.

Similarly the olein content is calculated by using the a-, b-, c-, e-, and g-axes which represent iodine value, β, olein content, thiocyanogen value, and percentage of saturated glycerides, respectively.

The linolein content is calculated by difference or a nomograph for equation (8) may be constructed.

The glyceride compositions of different oils calculated from 20-inch nomographic charts are compared in Tables V and VI with those calculated from the equations.

Summary

The construction and use of nomographic charts for the calculation of the glyceride compositions of oils and fats have been described. Equations adopted by the American Oil Chemists' Society relating the glyceride composition with the iodine and thiocyanogen values of an oil were used for constructing the nomographs. The glyceride compositions of different oils calculated from the nomographs were found to agree reasonably well with those obtained by calculation from the equations.

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Report of the Cellulose Yield Committee April, 1950

DURING the past year four sets of samples were sent out to 10 laboratories. Two second cut linter samples and one hull fiber sample were included in each group. One laboratory, No. 9, did not return but three reports so they are not included in the overall average.

The following table gives the analyses of the laboratories, which are numbered from 1 to 10:

Lab. No.	No. Sets Samples Tested	Samples			Overall Average for Year
		A Linters	B Linters	C Fiber	
1	4	77.8	75.1	73.3	75.4
2	4	78.2	75.0	72.8	75.3
3	4	77.9	74.9	72.3	75.0
4	4	78.2	75.0	72.0	75.1
5	4	78.3	75.9	73.1	75.8
6	4	77.9	75.2	72.8	75.3
7	4	78.1	75.1	72.4	75.2
8	4	78.2	75.6	72.6	75.5
9	3*	77.3	75.3	72.9	75.2
10	4	78.1	75.0	73.0	75.4
Avg.		78.1	75.2	72.6	75.3

* Not included in average.

The overall average of the analyses was very good, as shown by the above results. Work is being continued on improving the methods so that low yield hull fiber, that is, under 55%, will give the true yield when washed by this procedure. This should be reported next year.

Recommendations: It is recommended that samples be sent out at least four times during the next year. It is felt that this is desirable even though the average of the results are good for each mill. Two or three mills per year run into trouble, which is quickly found by these check samples. Also, since practically all of the second cut linters are sold on cellulose yield basis, which during the past year amounted to approximately $25,000,000, and also settled on the basis of one or the other of the laboratories above, it is important that all laboratories keep the cellulose yield procedure and equipment up to date and in good working condition.

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