ing in unventilated ovens or when small loads are fumed. This question, often discussed, is shown to be a definite possibility by our study of the questionnaire. Such a condition, if proved true and corrected, should largely eliminate sample darkening and many otherwise unexplainable cases of "off" results in oil determinations.

The committee regrets that after receiving the questionnaire answers, time was not available to go into this problem, but recommends it to our successor as the only question brought out by our work where further careful study might definitely improve our methods.

Respectfully submitted,
J. L. MAYFIELD, Chairman,
Seed Analysis Committee.

Method of Lint Determination: Weigh out 50 grams of the original sample of cotton seed in duplicate, and place in porous pots in the walls of which 3 cc. of concentrated hydrochloric acid has been absorbed. Cover the pot with a watch glass or other suitable cover and place in an oven at 130° C. for 1 hour. Remove and allow to cool to room temperature and reweigh on a balance sensitive to 0.05 grams. Place the fumed sample on a 10-mesh sieve and rub off the lint with a No. 11 solid rubber stopper and/or a towel. Reweigh the sample. Consider the weight of the dried lint as equal to the difference between the weight of the dried and fumed seed before and after removal of the lint.

Moisture determination of dried and fumed lint: At the beginning of each season collect the dried fumed lint from several samples and weigh 5 grams into a moisture dish and dry at 101° C. for 2 hours in the oven specified in Section 2 (a) of Rule 270. Place cover on dish, cool is dessicator, and reweigh. Calculate loss of weight as per cent of moisture in dried fumed lint. Check this determination from time during the season as conditions may indicate.

Example of calculation:

Weight of original sample	50.00	50.00
Weight after fuming	47.40	47.50
Weight after removal of lint	41.15	41.25
Loss due to removal of lint	6.25	6.25
Per cent of loss (weight × 2)	12.50	15.50
Moisture content original lint	7.00	7.00*
Moisture content fumed lint	2.00	2.00

Calculation:

$$\frac{12.50 \times 98}{93} = 13.2 \text{ per cent lint content of seed.}$$

*All lint calculated to 7 per cent moisture basis.

REPORT OF THE REFINING COMMITTEE FOR 1935-1936*

TWO matters were referred by last year's committee to this year's committee for further consideration as follows:

Specifications for Filter Paper

No work has been done on this problem because none of our members has been able to suggest a suitable procedure other than the present method of approving certain definite brands.

Soya Bean Oil

The refining procedure for this oil needs further study because of the various varieties of soya bean oil to be handled. This matter was taken up with the Soya Bean Manufacturers' Association in the attempt to have them cooperate with our committee in further study of refining procedure. Mr. Glenn H. Pickard, chairman of the Finished Materials Standards Committee of that association, indicated his desire to cooperate in this matter, but Mr. Pickard subsequently resigned as chairman and was replaced by Mr. M. M. Durkee of this society. We understand that Mr. Durkee is organizing his committee and we may expect cooperation later on, but nothing has been accomplished this year.

Coconut Oil

An omission occurs in our Refining Methods as published which should be corrected by inserting in the Lefax Methods, page 16c, paragraph 7, line 3, after "75 + 2° C.," the following parenthesis—(50±2° C. for coconut oil). The same change should be made in the Methods as published in the Rules of the National Cottonseed Products Association, Rule 273, Section 5 (c), in the last line of page 141.

This insertion makes this portion of the rule agree with the tabulation of methods which is correct.

Refining Paddles

The use of copper refining cups and paddles was brought to the attention of the committee because of the effect of copper on the green color in certain fats and oils, as published in OIL & SOAP for January, 1935. It was there shown that when tallow has a greenish cast due to the presence of chlorophyll, the green color becomes greatly intensified if the tallow is treated with copper. The increased green color then masks to some extent the red color in the Lovibond reading and gives an apparent color of lower red. The same was found to be the case with certain cottonseed oils having a green color, but not in any considerable number of cottonseed oils. Inasmuch as some laboratories are at the present time using copper or brass paddles, and others are using steel paddles, this difference may cause slightly different color readings on certain oils and is a point which should probably be standardized. The committee has accordingly voted four to one, with four other members not voting, to approve the following amendment to our Refining Methods:

In the Lefax Methods for refining loss on page 12 at the end of paragraph (a), Refining Apparatus, insert the following:

Note: Refining cups and paddles must be made of steel or some alloy not containing noticeable amounts of copper. The oil should not be allowed to come in contact with copper.

Recommendations

a. Further work by next year's committee on the refining of soya bean oil in cooperation with the Soya Bean Manufacturers' Association.

b. Correct the present method for coconut oil as indicated above.

c. Amend the refining method to eliminate the use of copper in refining cups or paddles.

Respectfully submitted,
C. B. CLUFF, Chairman.

*As Presented at the Spring Meeting at New Orleans, May 28-29, 1935