

The cost per sample of oil and soap-stock has been reduced to considerably less than half what it formerly was. The chief but by no means the only saving is in the size of sample. An increase in cost of the containers was more than offset by a saving in gross shipping weight and the decreased postage. We have used tin cans of type approved by the postal authorities, furnished with cardboard containers by the manufacturers.

The handling of crude oil samples was simplified.

Heretofore experience indicated that crude oil must be settled to insure getting uniform samples to all collaborators, although removal of settlings is obviously not favorable to making the oil representative of commercial oil. We find that unsettled oil reaches the collaborators in uniform condition if it is dry. Specifically we recommend selection of cooperative crude cottonseed oil samples of moisture content not over about .2%.

Chairman, Referee Board. A. S. Richardson,

Changes in Rules Adopted by Chemists' Committee and Rules Committee of the National Cottonseed Products Association at New Orleans, May 15, 1933

CHAPTER XIII.

Methods of Chemical Analysis.

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Rule 270. Cotton Seed.

Section 3. Fuming and Grinding.

(a) Second paragraph—FUMING OVEN. A double walled tank constructed of sheet iron or copper, preferably with welded or brazed seams, and with the inner compartment open at the top. This compartment is approximately 7¼ inches deep and 7 inches wide, which dimensions allow it to hold two rows of porous fuming pots. The oven may be of any convenient length, this depending upon the number of seed pots to be fumed at a time. A compartment 17½ inches long will accommodate ten pots in a double row of five.

The double walled jacket surrounds the oven on four sides and bottom, the space between walls being about 1¾ inches. This jacket is provided with a filler and breather pipe consisting of a ¾ inch close nipple welded into the end of the tank near the top and an elbow and 10-inch nipple extending vertically. The jacket is filled with vegetable or mineral oil which can be heated to a temperature of about 175° C. A nipple is also provided through which a thermometer can be inserted in the oil. Flat bottom trays of perforated metal, with handles which will fit within the compartment, are provided to hold the pots (conveniently ten to the tray) and enable them to be easily removed. Small angle irons are welded on the bottom of the compartment so that the trays do not rest directly on it, thus permitting circulation of heated air around the pots.

If the oven is made of a length to accommodate more than one tray of ten pots, it is advisable to place sheet iron partitions, tacked in place, between the sections for trays, so that one tray can be removed without interference with another.

A lid of sheet metal with handle is used to cover the inner compartment, lugs on the under surface serving to center it in place. One lid for each section for ten pots is convenient. Holes for ventilation and for a thermometer are cut in the lid, two (2) one (1) inch diameter holes for each ten pots capacity being satisfactory.

This oven is supported in any convenient manner and heated either with gas burners or with electric space heaters placed in contact with the bottom. Thermostatic regulation is not essential but may be convenient.

(NOTE: Sheet iron painted with an aluminum lacquer paint has been found to resist the corrosive effect of the hydrochloric acid.)

Section 8. Calculation of Analysis. (Change (a) to read as follows):

(a) Data on reports of seed analyses should be expressed as follows:

Foreign Matter to..... .1%

Oil to1%
Ammonia to01%
Free Fatty Acid, when 5% or under, to1%
Free Fatty Acid, when over 5%, to....	.5%
Index to1%
Grade to whole units.	
Yields to whole units.	

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Rule 273.

Section 5. Refining Crude Cottonseed Oil.

(d) (Line 24, sentence beginning, "This oil is to be filtered, etc." change balance of paragraph to read as follows):

Weigh the refined oil and filter through white filter paper (Eaton & Dykeman No. 617, Reeve Angel No. 230 or such other brand as approved by the Chemists' Committee.) In case of Expeller Oils, before filtering add 0.5 grams of filtercel (obtain from Secretary of American Oil Chemists Society) and agitate in bleaching machine for five minutes at 250 R.P.M. at room temperature to absorb colloidal matter. This filtered oil is to be used for determination of grade. Weigh the soapstock cup with its contents. Melt the soapstock by setting it in a water bath maintained at 75± 2° C. without stirring for 30 minutes; cool in the cold water bath for 15 minutes or until thoroughly chilled, then decant into a weighed beaker any additional oil thus recovered, draining for 15 minutes. Weigh this oil separately. Add this weight to the weight of refined oil first obtained, and subtract it from the weight of soapstock first obtained. Repeat the remelting, cooling, and decanting as above, if necessary, until the recovered oil from the last remelting amounts to not over 2.5 grams.

(Balance of section, including note, remain as written.)

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Rule 275. Refined oils.

Section 1. (b)

(In last line on page 152 sentence beginning, "In matching the color" change sentence to read as follows):

In matching the color, use only one yellow glass, 35 yellow for refined cottonseed oil and refined peanut oil; 70 yellow for refined soya bean oil; 30 yellow for refined coconut oil; not more than 2 red glasses up to and including 13.0 red, and not more than 3 red glasses above 13.0 red.

(Balance of paragraph and section to remain as written.)

Section 2. (b)

(Add to last sentence of section 2. (b) page 153 so that the entire sentence will read as follows):

Cool and read color immediately as prescribed in Section 1 of this Rule using 20 yellow and 2.5 red for determining grade.

(Balance of Section to remain as written.)