

posite quarters, remix the remaining two and again heap, flatten out, divide and discard two of the quarters. Continue this process until the sample is reduced to a desired size. Care must be observed to see that sand, bolls and other foreign matter are thoroughly incorporated into the seed in mixing.

#### RULE 246—HULLS

*Section 1. Hulls Loaded in Car.*—Draw representative samples from eight or ten different points in ends and middle of car, getting them from well down in body of the hulls. The samples so obtained shall be ten pounds or more in weight and shall be reduced to a suitable size by repeated mixing and quartering.

#### Sampling of Oriental Oil Cakes, Etc., H. P. BANKS

The results obtained by the Analyst are worthless if the samples are not truly representative of the material under examination. This statement is axiomatic but it is a cause of continued wonder that so few realize the importance of correct sampling. Preparation of the sample after same is taken is equally important but knowing the origin of the sample brought to the laboratory assists materially. The chemist's section of the *Cotton Oil Press* has contained articles on the preparation of samples of copra, etc., which are valuable.

Our experience with oriental commodities, peculiar to the Pacific Coast, has caused us to establish certain methods for sampling which are generally outlined as follows: though experience and common sense knowledge of the sample is the most important part of the method.

#### *Soya Bean and Linseed Cake*

The method of sampling Soya Bean Cake depends upon whether it is "Cartwheel" or "English" style. Cartwheel Cake is sampled by boring the cakes with a 1" bit. Cakes are selected to represent the pile (as by the Templet Method) and each cake is bored several times, beginning at the center and working toward the outer edge. Due to the variance in moisture content in this type of cake, it is essential that this procedure be followed so that representative sample may be obtained. This type of cake is also subject to mold, and if the shipment should be generally moldy, samples should be taken so that this condition may be noted when samples are brought to the laboratory for analysis and further examination. It is also essential that the sampler examine the shipment for presence of vermin which might seriously affect the merchantability of the shipment.

"English" Style Soya Bean Cake, packed in bags, may be sampled in accordance with Rule 244 of the Interstate Cottonseed Crushers Association.

"Linseed Cake," being in the same form as "English" Style Soya Bean Cake, is sampled in the same manner. However, in sampling Oriental

Linseed Cake it is well to take particular notice to determine whether there is any excess hair on the slabs, this being caused by the seed often being placed in hair cloth bags when pressed. The presence of the hair on the outside of Linseed Cake is detrimental to the quality of the cake. The percentage of cakes bored or bags sampled varies; 5% being the usual accepted standard.

#### *Fish Meal*

Fish Meal is sampled by using a trier which is inserted between the twine at the mouth of the bag, a core sample being taken the full length of the bag. Due to the variance in quality, it is customary to take samples in this manner from at least 20% of the bags. Due to the stowage of this material on the smaller vessels, often times Fish Meal arrives in wet and damaged condition. When such is the case it is desirable to make proper segregation when sampling so that the damaged meal might be classified "Fertilizer" while the undamaged meal may rightly be classed as "Edible," if such is the case. The same also applies to shipments which are found to contain mold.

#### *Oriental Seeds*

Oriental Seeds of various kinds are sampled by the use of a trier, core samples being taken the entire length of the bag, the percentage of sample taken varying from 5% to 10%. Care should be used in sampling seeds not to make holes in the bags which would cause loss in handling. Linseed is particularly bad in this respect. It is always advisable to use Standard Boerner Sampler to cut down sample to the required size for making purity determination or other tests. Care should also be taken in sampling to take note of condition of shipment as frequently seed, which has not been thoroughly dried, heats in the bags and becomes moldy or otherwise damaged.

#### *Chinese Shelled Peanuts*

The sampling of Chinese Shelled Peanuts being mostly hand picked selected nuts differ from most commodities in that samples are taken by hand, opening at least 5% of the bags. Care must be taken in sampling shelled peanuts so that the percentage of split nuts is not increased. Peanuts are very susceptible to heat and moisture and the sampler will do well to take samples next to the burlap as well as into the center of the bags, observing the condition of the nuts when taken from each bag. Samples should also be taken from separate bags so that uniformity of size can be checked when count is made.

In general, the proper sampling of any of these commodities requires that the sampler make a general comprehensive examination of the commodity so that any difference in quality and condition may be reported.

### Sampling in the Orient

Conditions in the Orient are so different from those which we find in the United States that the sampler must of necessity make a large part of his inspection while taking the samples. This is due to Customs Regulations and restrictions which are placed upon shipments which are in bond and in transit. Oftentimes Customs Officials will permit the examination of a shipment but will restrict the quantity of sample which may be removed from the shipment. Most of the inspection in the Orient is made in go-downs where the merchandise is being cleaned or graded and prepared for shipment. Under such conditions where there are a number of shipments of the same commodity being prepared, proper markings are very essential.

A considerable volume of business in the Orient is now being done on the basis of Oriental Inspection final which places great responsibility upon the sampler and inspector, one of the requisites being that the shipments in question should be in such condition that they will stand water shipment of from two to six weeks and arrive at destination in Sound Merchantable Condition and of the quality specified in sales contract.

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### NORWEGIANS ATTEMPT TO REMOVE THE BAD TASTE FROM COD LIVER OIL

From American Consul

MAURICE C. PIERCE

Bergen, Norway, Date of Preparation, May 13, 1924.

Date of Mailing, May 13, 1924.

During the past winter Professor Johan Hjort, of the University of Christiania, has carried on extensive experiments for the purpose of removing the disagreeable taste from cod liver oil. He has experimented with more than 500 barrels, which have been steamed and tested in accordance with the method he employs. Good results are now being reported by the local press, which states that Mr. Hjort's experiments have proved that the nasty taste can easily be taken out of the oil, thus enabling it to be used in a variety of food products. Several factories are trying out the tasteless oil in the manufacture of margarine and if the promised results materialize, the United States may lose a group of good customers in Norway. The margarine factories import annually large quantities of cottonseed oil and neutral lard and it is these raw materials that the cod liver oil is intended to substitute.