of lecithin, each contained 0.22 per cent. It would appear desirable to make all domestic soy bean oil intended for technical use as a drying oil a "non-break" product, particularly the oil from eastern beans, not waiting for the partial separation of phosphatides which, as has been found recently, does not always occur even after standing for several months.

SUMMARY

It has been found that the precipitate separating from clarified expressed crude oil from soy beans grown in North Carolina and Virginia is composed chiefly of phosphatides. Methods have been described for the determination of phosphatide phosphorus in soy beans which is applicable to seeds in general and in the oil. Soy beans of the more important varieties used by the oil mills both in the Eastern and Middle West States have been examined for their respective phosphatide content. With but few exceptions it was found that the beans grown in the East contained less phosphatides than those from the West, which indicated that the quantity of these substances present is not a factor in causing a partial separation of them in some oils but not in others. Regardless of whether or not a separation of phosphatides takes place, all the crude soy bean oils which have been examined so far have contained notable quantities of them.

REPORT OF THE FAT ANALYSIS COMMITTEE

By W. H. IRWIN

Chairman

At a meeting of the Fat Analysis Committee held October 10, the committee considered certain points which have been brought up from time to time during the past year or two.

Unsaponifiable:

Attention was called to the fact that in the unsaponifiable matter method for oils and fats, there is no correction made for fatty acids which might be present in the unsaponifiable matter, whereas in the soap analysis methods in the last chapter of the American Oil Chemists' Society methods this correction is made. The correction ordinarily does not amount to more than one-tenth or two-tenths percent. After some discussion, it was decided to make the Fat Analysis Committee Unsaponifiable Method for oils and fats conform with the soap methods.

Fatty Acids Combined as Mineral Soap:

The point was brought up as to whether the fatty acids combined as mineral soap should be added to the M.I.U. or whether a credit should be given for the free fatty acids so combined. The point was made that fatty acids combined as mineral soap are of no value to the soap maker unless he acid-washes the material.

In view of the lack of complete information, it was agreed to make further study of this matter before reaching a decision.

Wiley Melting Point Method:

The cooperative results on the sample sent out in May were studied and it was agreed that they were not satisfactory enough to warrant adoption of the method without some further modification Dr. Vollertsen, who has had more experience with the method than any other member of the committee, agreed to draw up the details of the method and the committee will then do further cooperative work.

Free Fatty Acids:

Mr. Long pointed out the fact that the free fatty acids method, as now written, is not detailed enough. It was, therefore, agree to add a table indicating the amount of sample, the strength of the standard solution, etc., to be used in making the determination on products of various fatty acids content.

Titer Determination:

It was agreed to make clear the method of stirring in the titer determination so that there would be no possibility of misinterpretation. The method agreed upon was to stir with a circular motion in one plane at 100 r.p.m.

FAC Color Standards:

Little progress has been made in changing over to the more permanent standards, suggested by Mr. Doherty, for the reason that the committee has been unable to locate a sufficient supply of chemically pure uranyl chloride to take care of the requirements for the replacements of the sets now being used. It was also pointed out that it would be necessary to put up the standards in ampoules on account of the acid nature of the material, the action of which causes discoloring by action on the rubber stopper used in the present set. The substitution of ampoules will also probably necessitate a change in the kind of case used in protecting the set from the bleaching action of daylight. It was agreed to follow the matter further with a view of making a change as soon as the necessary materials are available.

Liquid and Solid Fatty Acids:

The cooperative results submitted on the liquid and solid fatty acid determinations in shortenings varied so widely that there seemed to be no hope of getting the results together without drawing the details and setting the conditions much closer than they are in the methods now in use. After some discussion, it was agreed that Mr. Long would draw up details of the Twitchell Method and that the Committee would make a study of this method during the coming year the iodine number and thiocyanogen number to be used in calculating fatty acids. Each laboratory will take one sample and follow the method through carefully at least three times at intervals of one to two weeks, reporting all figures in order to see how the individual laboratories can check their results by the method.

W. H. IRWIN, Chairman.
R. W. BAILEY.
T. C. LAW.
C. P. LONG.
M. L. SHEELY.
H. J. MORRISON.
L. M. TOLMAN.
H. P. TREVETHICK.
J. J. VOLLERTSEN.