A PRELIMINARY REPORT OF THE PLANNING COMMITTEE

By David Wesson, Chairman

With the beginning of the season's crop of cotton seed, the various Committees of the American Oil Chemists' Society has started to work in good earnest. Dr. P. S. Tilson, Chairman of the Moisture Committee, reports the contemplation of a very extensive investigation of the Bidwell-Sterling moisture method. This method promises to be the one which has long been looked for to give accurate results in the determination of moisture in cotton seed products.

H. C. Moore, Chairman of the Ammonia Committee, is sending out samples of meal in connection with the work of the Smalley Foundation. This work has been progressing actively throughout the season.

C. B. Cluff, Chairman of Refining Test Committee, suggests the following work for the coming season:

1. Samples representing one or preferably two lots of settled crude oil of the kind usually difficult to refine and requiring longer agitation, should be sent out to members of the committee. This should be done in September, if possible.

2. Two samples of ordinary crude oil not settled should be sent out to committee members, in October.

3. If the above tests show reasonable agreement among members, one sample of settled crude and one of unsettled crude should be sent out in November or December, to all members of the committee and at least five other chemists closely connected with refining work.

4. The results of the above tests, which should be completed by the end of December will determine our future course.

The general refining procedure is to be the same as used last season.

The colors of all refined oil samples to be read in one central laboratory to eliminate personal differences. The lyes which will be specified for use on the above samples are to be taken from the schedule contained in my letter of July 3rd.

Crude oil for these tests should be selected so that it will not be of too good quality. F.F.A. should be about 2½ per cent to 4 per cent, if possible.

D. C. Picard, Chairman of the Seed Committee, states that his committee is endeavoring to work out a practical method that will apply to seed under all conditions—wet or dry—and one that will involve a minimum of manipulation. If we use gaseous hydrochloric acid on the first seed of the season, we would have to dry the seed afterwards in order to get it in condition to grind and there is no advantage in doing that. If we treat normal seed with gaseous acid as a preliminary treat-

ment to removing all the lint by rubbing or shaking, we would have to weigh the delinted seed to figure results back to the original seed and you have no idea how easy it is to lose a few seed in manipulation. In the Malowan method twenty to fifty seed can be handled a day if there is sufficient oven capacity and with the mill properly regulated, only about five minutes will be needed to prepare each sample for analysis after the seed have cooled. There is no weighing of seed before or after treatment and all calculations are figured on the moisture basis, therefore, after the seed are treated and prepared, the remainder of the work is routine.

L. F. Hoyt, Chairman of the Sub-Committee of the A.C.S. on the Determination of Detergancy of Soap Products, reports progress on a standard method which is now being studied by the members of his committee. Special apparatus has been designed and the method has been standardized. It is belived we will find that with progress already made the final report will show that a thorough practical method has been worked out.

REPORT OF THE SEED COMMITTEE

The Seed Committee continued the work of its predecessors and worked on improvements of the Malowan method besides sending out seed samples to several chemists to obtain a better try-out of the method.

The following laboratories co-operated with your committee: Barrow-Agee Laboratories in Memphis, Tenn., Shreveport, La., Greenville, Miss.; Houston Laboratories, Houston, Tex.; Houston Cotton Oil Mill, Houston, Tex.; Law & Co., Atlanta, Ga.; Picard Laboratories, Birmingham, Ala., and the Portsmouth Cotton Oil Refining Corporation, Portsmouth, Va.

Seed Sample No. 1 was analyzed by the following two methods: (Method A was proposed by the Seed Committee of last year and method B is an improvement worked out since.)

Method A: Take approximately 50 grams of the sample and moisten for 2-3 minutes with HCl (2 parts acid to 3 parts water). Drain off the liquid and dry the sample at about 130 C. for two hours, or long enough to reduce the moisture to a maximum of 3 per cent. Allow the sample to cool and then grind in a mill or mortar to a degree of fineness that allows of thorough mixing.

Method B: Place into a 150 or 250 cc beaker 3 to 5 cc. conc HCL and insert a crucible cover to keep the seed of the acid and add about 50 grams of seed without packing. Cover with a watch glass and heat in an air bath, oven, or hot plate for about ten minutes, then remove watch glass and continue heating for about 30 minutes till seed are dry. Empty the beaker and permit to cool, then grind the seed and mix.