

Associate Referees are urgently needed for other studies, particularly benzene hexachloride, Sevin, and DDVP (dimethyl dichlorovinylphosphate). Studies of the determination of pyrethrins in formulations are also required; all the recent work has been done on pyrethrum concentrates.

The collaborative check sample program of the American Association of Pesticide Control Officials was continued. The data obtained may be used to support proposed AOAC methods. The following eight samples were analyzed:

	<i>Method(s)</i>
1. Heptachlor	AOAC active chlorine
2. Benzene hexachloride, 10%	AOAC partition chromatography
3. Ziram	alkaline hydrolysis
4. Monuron (CMU)	CS ₂ evolution
5. Warfarin	ultraviolet
6. DDVP	infrared; total phosphorus
7. Thiram	ultraviolet; Kjeldahl nitrogen
8. Malathion	infrared; total phosphorus

Recommendations

It is recommended—

- (1) That the proposed change in the official, final action method for pyrethrin II (4.110) be adopted.
- (2) That the ultraviolet method (*This Journal*, 42, 96 (1959)) and the infrared

method proposed for rotenone be adopted as official, first action.

(3) That the first action method amendment in 4.104(c) and 4.105 for the determination of rotenone in products containing 0.75–1.00% rotenone with or without sulfur and/or pyrethrins be adopted as official, final action.

(4) That the melting point of rotenone be specified as 163–164° in 4.103(a).

(5) That the proposed titration method for arsenic be adopted as official, first action.

(6) That the method for sodium trichloroacetate (*This Journal*, 45, 522 (1962)) be amended to include the reagent "Dioxane, freshly distilled the day of use."

(7) That work be continued on the following subjects:

Aldrin
Arsenic
Copper naphthenate
DDT
Dithiocarbamates
Fumigants
Herbicides
Malathion
Parathion and methyl parathion
Phorate
Physical properties of pesticides
Piperonyl butoxide
Pyrethrins
Rotenone
Sulfoxide
Toxaphene
Warfarin.

Report on Tobacco

By C. L. OGG (Eastern Regional Research Laboratory, U.S. Department of Agriculture, Philadelphia 18, Pa.)

Three methods for the analysis of tobacco have been studied collaboratively during the year. Eleven laboratories participated in a continuation of the study of the method for determining the petroleum extractives in tobacco, using two methods in addition to the one normally employed in their laboratories. Results were not as conclusive as had been

desired and indicate that further work is needed.

Twelve laboratories analyzed six samples for potassium, using a rapid extraction procedure followed by flame photometry. The interlaboratory precision for the samples low in potassium were satisfactory, but for high-level potassium samples the coefficients

of variation were too high to warrant recommending adoption of the method as official, final action. Further work will be done on this method.

Two methods were compared for determining chlorides in tobacco, one employing a pH meter and the other an automatic titrator. Both procedures gave excellent results, but since only a few laboratories have automatic titrators, the method employing the pH meter is being recommended for adoption as official, first action.

The Analytical Methods Committee of the Tobacco Chemists Research Conference is continuing the study of smoke analysis methods to try to find means of improving the interlaboratory precision. This work has not been completed, so no Associate Referee report can be made this year.

Recommendations

It is recommended—

(1) That method I, tested this year for determining chlorides in tobacco, be adopted as official, first action.

(2) That the study of methods for potassium in tobacco be continued.

(3) That the study of methods for determining the petroleum ether extractives in tobacco be continued.

(4) That the study of cigarette smoke analysis methods be continued.

(5) That a study of methods for determining moisture in tobacco be initiated.

(6) That other studies be conducted in cooperation with the Analytical Methods Committee of the Tobacco Chemists Research Conference.

Report on Agricultural Liming Materials

By CHARLES W. GEHRKE (Department of Agricultural Chemistry, University of Missouri, Columbia, Mo.)

Studies were conducted in the laboratories of the Referee and Associate Referee on the mechanical analysis of agricultural liming materials, namely, burnt lime, hydrated lime, and ground marl. Comparison was made of a "wash" sieving procedure for ground limestone with the "dry" sieving method, 1.002. The data presented show that added clay plus "wetting" of the sample, followed by dry sieving, results in more material remaining on sieve Nos. 40 and 100. This effect can be essentially eliminated by the application of a washing technique. It was observed that there was little difference in the rate of reaction between various soil types and freshly ground dry agricultural limestone, or limestone that was aggregated by wetting and drying.

Further studies were made on the EDTA titration method for calcium and magnesium in liming materials, and a modification of the method is recommended for samples that

contain from 2 to 4% of magnesium. It is recommended that if samples contain phosphate, the aliquots be passed through an ion exchange resin to remove phosphates.

Recommendations

It is recommended—

(1) That the minor change in concentration of the EDTA solution for titration of magnesium in the method for calcium and magnesium, *This Journal*, 45, 200 (1962), for samples with 2-4% magnesium be made as recommended by the Referee; that a suitable warning of interference by phosphates be added; and that the method remain official, first action.

(2) That investigation be continued on methods for mechanical analysis of ground limestone; particularly, collaborative study should be initiated on wet and dry sieving methods.