The A.O.C.S. and the Research Chemist in the Union of South Africa

SOUTH AFRICA is a comparatively small country in its population, in its number of scientists, and in the number and circulation of its scientific periodicals. The various chemical societies of the Great Powers have a sharpened interest to chemists in such smaller countries because they constitute the chief medium by which contact with progress is maintained. The American Oil Chemists' Society, for instance, provides four valuable services to the oils, fats, and waxes chemist in South Africa, namely: it publishes an authoritative compilation of analytical methods; it holds meetings at which it welcomes the foreign visitor both as listener and contributor; it handles technical correspondence; and it publishes the Journal. Of these, the last is of paramount importance to the research man. Aside from the obvious benefits to be gained by reading the work of others in the Journal and of using it as a medium of publication, it provides us with a valuable service which is perhaps not so widely appreciated among its American readers. This service is its system of subjecting manuscripts to criticism by specialist referees and the editorial office. We like to submit our papers to journals where the going is tough but scrupulously fair because this is the only way in which we can see whether our work is up to standard. It would be fatally easy in a small country to publish the whole of one's work in the local journals where it is unlikely that the editors can call upon a panel of other specialists for refereeing purposes. It is good to know from the January A.O.C.S. Commentary that the editor is seeking still further improvements in the papers by asking for increased brevity and clarity and by reviewing the "Author's Style Sheet" and "Directions for Manuscript Reviewing."

D. A. Sutton

The South African scene in regard to research in recent years on oils, fats, and waxes may interest J.A.O.C.S. readers.

It is appropriate first to mention the long series of papers on South African fish products written by W. S. Rapson, H. M. Schwartz, and various collaborators during the years 1939–1952. Since 1952 this work has been followed up by a concentrated attack upon the constitution of pilchard oil by M. H. Silk, H. H. Hahn, and J. M. Whitcutt. Fats from indigenous plants constitute a rewarding field of study and have yielded some interesting structures such as the ximenynic, hydroxy ximenynic, and long chain acids of ximenia oils elucidated by S. P. Ligthelm and H. M. Schwartz and the hexadecadienoic acid of F. Hawke and G. S. Harrison. In addition, compositional studies have been carried out on several such oils, and in two cases the fat of the seed funicle has been studied separately from that of the rest of the seed. The structure of a very unusual acid, sterculic acid, was worked out by J. R. Nunn.

Reactions of interest because of their connection with industrial manipulations of fats have had attention paid to them. For example, Hawke has recently studied estolide formation during the heating of ricinoleic acid, and a series of papers on the autoxidation and polymerization of oils has been published by a group including the writer.

The composition of wool wax has been studied by a team including D. H. S. Horn and E. M. von Rudloff and the alcohols of human sebum by F. W. Hougen. An unusual study of the constitution of a plant leaf cuticle has just been published by M. Matic, and sugar cane wax is now under investigation.

As in other countries, there is a growing interest in biological researches involving fats, and it would seem that an opportunity exists for South African biologists and chemists to collaborate and make worthwhile contributions in this field.

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