of which the remarkable speed and extent are shown by the cotton yields of the years 1935–38, which were 4·65, 3·72, 4·47 and 4·55 kantars per feddan respectively.

When Bailey retired from the Sudan in 1938, cotton growing in the Gezira had been rescued and initial plans had been laid for the wider agricultural development of the whole country, including the non-irrigated south. Hope that the ability and character by which the Sudan had profited would play a great part in the National Institute of Agricultural Botany, which Bailey came home to direct, was ended by his death in Cambridge on October 16 last at the age of forty-nine.

It was specially fitting that a scientific worker born and educated in England and provided by Egypt with great opportunities for studying cotton should do his culminating work in the Sudan, in which these two countries have a condominium. He played two parts there. For the first six years plant breeding occupied all his time: for the remaining seven he was director of agricultural research. It was Bailey's clear planning and quiet persistent influence which led to the complete reorganization of the research service. He infused into it the spirit which has made it remarkable for success in conjoint work.

Leaf curl was checked by two lines of action. The Entomological, Mycological and Agricultural Sections, by a series of fine investigations, identified the vector (the white fly, an Aleurodid) and found means of exercising a considerable degree of control over it in field practice. Meanwhile, the Plant Breeding Section set itself to examine the possibilities of obtaining, by selection or crossing, new varieties which, while equal in lint qualities to the customarily grown Sakel variety and adapted to the peculiar Gezira environment, had the further merit of specific resistance to leaf curl. Hybridization had to be discarded because of its inevitable slowness, and all effort was concentrated on selection. The field was ultimately narrowed down to plants resulting from a single selection out of a field crop of Sakel in the Gezira made by Mr. A. R. Lambert of the Botanical Section in 1926. There finally resulted two strains known as *X* 1530 and *X* 1730 which, showing in trials all the desired attributes, had spread to an area of 130,000 acres in 1937–38. Systematic plant breeding has nowhere produced a quicker or more significant result than this. F. L. Engledow.

Prof. A. P. Orekhov

The death occurred on October 19, at the age of fifty-eight, of Prof. Alexander Pavlovich Orekhov, member of the Academy of Sciences of the U.S.S.R.

Orekhov was one of the most eminent experts in the chemistry of alkaloids in the Soviet Union. Concentrating his main research on vegetable bases, he ascertained that most of the alkaloids were not specifically characteristic of definite vegetable species or families and that one and the same alkaloid or alkaloids of similar structure may be found in plants of different families. Under his guidance more than eight hundred kinds of new vegetable raw materials were studied, found mainly in the southern republics and provinces of the U.S.S.R. During this research were discovered a hundred new alkaloid-bearing plants and ten new families, previously not known to possess alkaloid-bearing representatives.

Orekhov established the structure of anabazine, salsoline, salsolidine, convolvine and certain other vegetable bases. Many of the alkaloids he isolated were afterwards identified as substances already known and obtained by other investigators from quite different vegetable raw materials. From the point of view of scientific theory, of special interest is his elucidation of the structure of the alkaloids convolamine and convolvine, which have been proved to be ethers of veratric acid and tropine. It was thus ascertained that the derivatives of tropine are encountered in quite new families hitherto not held to be alkaloid-bearing.

A. P. Orekhov created his own school of research workers, and the laboratory which he directed at the Chemical Pharmaceutical Institute attached to the Commissariat of Health became the principal centre for the study of the chemistry of alkaloids. His work on "The Chemistry of Alkaloids" is the standard work on the subject in the Soviet Union. He was elected a member of the Academy of Sciences of the U.S.S.R. in January of this year.

Prof. C. F. Shaw

The death of Prof. C. F. Shaw of California removes one of the most prominent of America's pedologists. Prof. Shaw gained a reputation from his studies in the field of pure rather than applied soil science, his name being especially associated with the question of soil classification. He spent several years studying Chinese soils, besides having a wide experience of American conditions. His revolving-disk method of measuring and specifying soil colour has been one of the more notable advances in the technique of soil physics in recent years. He was an ardent believer in the American binomial system of soil nomenclature, and had been engaged for some years prior to his death in collecting and collating a world list of 'soil-series' names, which was to serve systematic pedology as the Linnean system has served botany. G. V. J.

We regret to announce the following deaths:

Mr. P. H. Grimshaw, formerly keeper of the Natural History Department of the Royal Scottish Museum, on November 14.

Dr. R. von Ihering, chief of the Servico Federal de Piscicultura, Rio de Janeiro, on September 15, aged fifty-six years.

Dr. T. L. Prankerd, lecturer in botany in the University of Reading, on November 11, aged sixty-one years.

Sir William Prout, K.C.M.G., O.B.E., senior consulting physician to the Colonial Office during 1927–29, on November 18, aged seventy-seven years.

© 1939 Nature Publishing Group