

available evidence would suggest that the swamp soil conditions increase the availability of certain nutrients which are not provided in sufficient quantities under conditions of dry cultivation. Further work is needed, however, to show whether the availability of silicon is increased under conditions of wet cultivation and whether the element thus assimilated

plays any part, direct or indirect, in the nutrition of the rice plant. Researches on these and allied problems are already in progress in the laboratories of the Indian Institute of Science and it is hoped that, before long, it will be possible to throw some light on what has so far remained an enigma in agricultural practice.

### Obituary.

**Dewan Bahadur K. Rangachari, M.A., L.T. (1868-1934).**

THE death of Dewan Bahadur K. Rangachari, M.A., L.T., on May 10, has removed from the Indian scientific world an eminent Botanist, a keen Ethnographer and a venerable personality.

He was born in September 1868 of very humble parentage. Left fatherless at an early age he had to fall on his own resourcefulness and pursued his studies with the help of fees earned by giving private tuition to young school children. He matriculated in 1885, passed his First Examination in Arts in 1888 from the Madras Christian College and took his B.A. degree in 1890 from the Pachappa's College. With the help of a Government scholarship he studied in the Presidency College and took the degree of Master of Arts, taking a first class. He then qualified for the degree of Licentiate in Teaching and in 1895 started his career as Headmaster of the Municipal High School, Anantapur.

In March 1897 he entered Government service as Herbarium Keeper at the Government Museum at Madras. He worked at the Museum for five years until in July 1902 the teaching profession called him again and he was appointed Senior Assistant Professor in Presidency College. In 1904 he acted as Superintendent of Ethnography for a year. His touch with the Museum and Ethnography crystallised into the seven sumptuous volumes on "The Castes and Tribes of South India," which Mr. Edgar Thurston and he published in 1909. Mr. Thurston became a Companion of the Order of the Indian Empire and Mr. Rangachari's work was recognised by the Government of India with the title of Rai Bahadur in 1913.

From October 1909 began his two-fold connection with the Agricultural College and Research Institute, viz., Instructional and Systematic Botany. His appointment as Lecturing Botanist gave him ample

facilities for gathering data and perfecting a series of text-books on Indian Botany suited to various standards. He was one of the pioneers in this attempt at Indianising Botany and of vernacularising the same. His name is predominant in the world of instruction in Indian plant life. He was a Fellow of the Madras University and his wide experience was sought after by other universities and institutions in the organisation of their studies.

Mr. Rangachari was a great Systematic Botanist. As Herbarium Keeper at the Madras Museum, and later as Systematic Botanist in charge of the Coimbatore Herbarium he had a good share in the accrual of the collections enshrined in that Herbarium, which may now claim to be "one of the best in India". The rapid and repeated additions and the continuous consignments from it to Kew, resulted in Gamble's *Flora of the Madras Presidency*, a work which has so far run into 9 volumes. This *Flora* is in part a mute testimony to his colossal but unobtrusive energy. He helped a number of his colleagues, both European and Indian, in a characteristically quiet manner, often doing a considerable amount of selfless work for them. He studied the history of weeds of arable lands and wrote a useful handbook on the same. In addition to systematic work the Herbarium served as a clearing house for much botanical information of scientific and economic interest and many were the enquiries on which Mr. Rangachari threw helpful light.

He was President of the Section of Botany in the 4th Indian Science Congress at Bangalore in 1917 and delivered an address on "The Flora of the Tinnevely Hills". He was one of the Foundation Members of the Indian Botanical Society and was its President for the year 1922.

Mr. Rangachari was a keen photographer

and a sound music critic. In the early days of the phonograph he was enthusiastic in taking successful records of the songs of the aboriginal tribes of the Nilgiris.

In June 1918 he was promoted to the Indian Agricultural Service, one of the earliest to get this recognition. He retired from service in September 1923 and was

decorated Dewan Bahadur. Attuned to very active habits he continued to work with his accustomed vigour until he broke down under the strain into final rest. Simple in habits, warm in his emotions and encyclopædic in his equipment, his was a full and abiding greatness.

G. N. R.

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#### V. Krishna Murti Iyer, G.M.V.C., I.V.S. (1885-1934).

WE regret to have to record the untimely death of M.R.Ry. V. Krishna Murti Iyer Avergal, G.M.V.C., I.V.S., on the 18th October 1934 at his residence in Parasuwakam. Born in the year 1885 he received the early education in the Kumbakonam College. He joined the Madras Veterinary College in 1906 and graduated from it with distinction in 1909. After a brief service in the Civil Veterinary Department he was appointed lecturer in the Madras Veterinary College in 1910. By dint of hard work and high ability he rose in service till he was promoted to the Indian Veterinary Service in 1922.

He worked in several Indian laboratories and did much important work on nasal granuloma and lymphangitis of cattle. That he should have passed away so early in life is a serious loss not only to his

relations and friends, of whom there are many, but also to the cause of Veterinary Science and Veterinary service. For had he lived longer it is possible that some, if not all, of the results of his investigational experiments would have seen the light of day. Being the fruits of long years of laborious work and study and vast experience they would have been of undoubted value. If he had been spared some time longer it is also possible that with his vast influence with the Government he might have successfully championed the cause of the subordinate service.

The Madras Veterinary College has lost in his death a most energetic, a well-informed and impressive professor who cannot be easily replaced.

S. D. ACHAR.

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#### Sir Arthur Schuster (1851-1934).

WE regret to record the death of Sir Arthur Schuster, F.R.S., the eminent physicist, on Sunday, October 14, at his home. Born on 12th September 1851, he was appointed Professor of Applied Mathematics in 1881 and was subsequently appointed Langworthy Professor of Physics at Owen's College, Manchester. He took an active part in four eclipse expeditions, the

first one to Siam when he was only twenty-four years of age and the others in Colorado, Egypt and West Indies. After his retirement from the Professorship in 1907, he took a keen interest in the establishment of co-operation in Science and assumed an active part in the International Association of Academies and the International Research Council founded after the Great War.