SCIENCE NOTES AND NEWS

Early Occurrence of Red Rot in Bihar

S. L. Sharma and H. C. Jha, Central Sugarcane Research Station, Pusa, Bihar, observe that red rot lesions in sugarrane on mid-ribs of leaves just emerging and acervuli on the spindle were noticed as early as 14th April this year. In the beginning, the affected portion of leaf midrib become straw-coloured at several places. In the discoloured area there were dark grey or blackish blotches surrounded by a deep red margin. Spindles on pulling out, showed reddish pink spore masses which on culturing on oat meal agar gave typical red rot colony of 'D' strain. The shoots ultimately dried up and died. In the fields too, the disease has been noted early in May in Hasanpur (Darbhanga) and Riga (Muzaffarpur), in June in Lauriya, Narkatiaganj, and Bagaha (Champaran) in North Bihar.

Award of Research Degree

The Andhra University has awarded the D.Sc. Degree in Geology to Sri. M. Poornachandra Rao for his thesis entitled, "Some Aspects of Marine Geology in Certain Parts of Bay of Bengal".

The University of Bombay has awarded the Ph.D. Degree in Chemistry to Sri. P. R. J. Gangadharam for his thesis entitled "Studies on the Chemotherapy of Tuberculosis".

The Lucknow University has awarded the Ph.D. Degree in Geology to Shri C. G. K. Ramanujam for his thesis entitled "Fossil Woods from the Tertiary Rocks of South India".

The University of Poona has awarded the Ph.D Degree in Agricultural Plant Pathology to Shri Veerendra Vijayshanker Bhatt for his thesis entitled, "Further Studies on Phytopathogenic Bacteria of India".

Dr. K. R. Surange

The International Organization of Palæobotany is publishing a Report on World Palæobotany with a board of regional editors to collect and forward reports on all books and papers published in their respective regions. Dr. Surange, Assistant Director and Officer-in-Charge, Birbal Sahni Institute of Palæobotany, Lucknow, has been appointed as the Regional Editor for Asia. Dr Surange has also been elected as a member of the International Committee for Palæobotanical Nomenclature.

Zoological Society of India—Award of Bhalerao Memorial Medal

The Zoological Society of India will award the above medal in January 1956, in respect of contributions in helminthology, both pure and applied, by any research worker in India (irrespective of the year of publication).

Workers in helminthology are requested to send reprints of their contributions and three copies of a list of these reprints. The adjudication for the award will be made only on the basis of reprints submitted

Reprints should be addressed to Shri M. A. Moghe, Department of Zoology, Poona University, Poona-7.

Memorial to Prof. H. K. Mookerjee

The Zoological Society has formed a Professor H. K. Mookerjee Memorial Committee with Professor S N. Bose as President, to perpetuate the memory of Professor Himadri Kumar Mookerjee, former Head of the Department of Zoology, Calcutta University, and President of the Society The Committee appeals to all friends, students and admirers of the late Professor Mookerjee to contribute liberally towards the fund for raising a suitable memorial. All contributions may kindly be sent to the Hony. Treasurer, The Zoological Society, 35, Ballygunge Circular Road, Calcutta-19.

International Symposium on Macromolecular Chemistry

The above symposium will be held under the auspices of the International Union of Pure and Applied Chemistry and the Weizmann Institute of Science, in Rehovot, Israel, on April 3-9, 1956.

The object of the symposium is to discuss the behaviour of polymers, biocolloids and polyelectrolytes in solution, but it is hoped that the symposium will also provide an opportunity for a general exchange of ideas, between polymer chemists and biophysicists on the biological implications of the physical chemistry of biocolloids and polyelectrolytes. Further particulars can be had from Prof. A. Katchalsky, Head of the Department of Polymers, Weizmann Institute of Science, Rehovot, Israel.

INSDOC Report, 1954-55

This third report, presenting the activities of the Indian National Scientific Documentation Centre, New Delhi-12, records continued efforts in organising and executing documentation service. The demands made on the Centre have been heavy, and have far exceeded the earlier anticipation. In the category of responsive documentation, INSDOC received 4,800 orders for services, comprising copies of 4,336 documents, translations of 411 scientific articles, and requests to conduct 53 literature searches. In 1953-54 the total orders received were 3,531. The increase recorded this year comes to 36%.

INSDOC entered the field of active documentation with the publication on June 1, 1954, of a semi-monthly, classified bibliographical journal entitled *INSDOC List of Current Scientific Literature*. The periodical furnishes advance information about published papers, and has been well received, both in India and abroad.

Chemical Extraction of Cane Sugar

The first successful plant for extracting sugar by continuous diffusion process has started operation at Fellsmore Sugar Producers Associations' Factory at Fellsmore, Fla. The installation is a pilot plant but its designers, National Cylinder Gas Co., have blueprints for plants capable of outputs of 150-1,500 tons a day.

On the figures published, the present crude method of extracting the juice by crushing the cane between rollers will not be competitive with diffusion, in which sliced cane is circulated with hot water and recycled juice in a tower. The effect is to render the cell walls permeable and dissolve out the sucrose by osmotic transfer. A juice extraction of 97% is guaranteed and may be as high as 99%, with a purity two or three points higher than for milling because more impurities are left in the exhausted cane. The chemical plant requires half the weight of steel of a mill of the same capacity, costs half as much, needs less than half the power and is operated by two men.

—*Chemical Engg.*, May 1955.

Aerial Blobs

In a recent paper in *Science*, F. Zwicky calls attention to some striking features of the stellar scintillations and excursions that are due to what may be termed aerial 'blobs' Although many atmospheric disturbances refract, diffract, scatter or absorb light from distant celestial and terrestrial sources in an irregular manner, aerial blobs which are volumes of air of locally altered density, temperature and water content possess remarkable optical properties. Blobs in combination with the mirrors or lenses of a telescope often bodily displace the images of stars or focus them in points in front or behind the regular focal surface.

Linear dimensions of aerial blobs have been observed ranging from millimetres to many metres Blobs may be globular, lenticular, or cylindrical in shape, thus producing sharp point-like or line-like extra-focal images of stars. Often hundreds of blobs are quite regularly spaced and drift with the winds at various altitudes up to 50 km. or perhaps higher.

A most amazing feature of many aerial blobs is their durability and stability; some of them preserve their shapes for hours. The reasons for the durability of aerial blobs are not yet well known It is suggested that their stability is related to the thermal, caloric and electric phenomena that govern and regulate the water content of the blobs.

New Alkaloids from *Rauwolfia*

Sandoz, Inc of Basle, Switzerland, have reported the isolation of two additional alkaloids from *Rauwolfia canescens*. These are pseudoyohimbine and canescine, the latter having pharmacological properties similar to those of reserpine. The methoxy group in position 11 of the reserpine molecule is absent in canescine but this does not seem to be necessary for the action of these compounds.

Raunormine, an alkaloid isolated from a species of *Rauwolfia* not exploited commercially previously, has been isolated by the research group in S. B. Penick & Co. The alkaloid is believed to be identical with canescine (*Chem. Eng. News*, 1955, 33, 1076).

Fuels and Lubricants Laboratory

A new Fuels and Lubricants Testing Laboratory was recently inaugurated by Professor M. S. Thacker in the Internal Combustion Engineering Department of the Indian Institute of Science, Bangalore. Equipment for the new laboratory has been largely contributed by a number of German industrial firms. The setting up of the laboratory is the first step towards a more scientific approach to the problem of utilization of indigenous fuels in India.

ERRATA

Article on 'Structure of DL-Aspartic Acid' (1955, 24, 294), column 1; para 2; line 3: *read* internal *for* integral. In Table I, under z (row 6): *read* 0·049 *for* 0·094.

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