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NEWS-LETTER OF THE SOUTH AFRICAN ASSOCIATION OF BOTANISTS.
NUUSBRIEF VAN DIE SUID-AFRIKAANSE GENOOTSKAP VAN PLANTKUNDIGES

DEPARTEMENT PLANTSIEKTEKUNDE, UNIVERSITEIT VAN PRETORIA: Die voorgraadse opleiding in Plantsiektekunde word in elf kursusse aangebied. Hierdie kursusse word op 'n semesterbasis oor 'n periode van 3 jaar geneem, na die gewone eerstejaar. Dit neem dus 'n minimum van 4 jaar om die B.Sc. (Agric.) in Plantsiektekunde te behaal. Die doel is om studente so op te lei dat hulle goed onderlê word in navorsing of geskik is vir toetrede tot die nywerheid of om op te tree as konsultante en selfs vir die boerdery. Vir spesialisasie in 'n spesifieke rigting is dit nodig om die M.Sc.-graad te neem en selfs D.Sc., afhangende van die besondere geval.

Gedurende die voorgraadse opleiding word veral klem gelê op virologie, swamkunde, swamfisiologie, bakteriologie, parasitologie, epidemiologie, nematologie, swamdoders en bestryding van plantsiektes. In die verlede is navorsing toegespits op die studie van siektes van sub-tropiese gewasse. In hierdie opsig is baanbrekerswerk gedoen op *Guignardia citricarpa* van sitrus en bakteriële vlek van mango's. Tans word die aandag toegespits op mieliesiektes. Daar is op die oomblik 9 studente ingeskryf vir die M.Sc.-graad en 3 vir die D.Sc.-graad. Hierdie studente se projekte handel hoofsaaklik oor mieliesiektes asook *Verticillium*-verwelksiekte van aarbeie en swartvlek van sitrus.

Prof. J.M. Kotzé is die hoof van die departement en sy belangstelling lê in siektes van sub-tropiese vrugte. Hy het ook onlangs 'n projek begin op mieliesaad en -saailingsiektes. Prof. Kotzé word bygestaan deur mev. Van Deventer.

Dr. C.J. Rabie is senior lektor en het so pas 'n projek oor die invloed van

osmotiese druk op swamme afgesluit. Hy is tans besig met 'n besondere interessante nuwe rigting naamlik toksienproduksie by swamme. Daar is gevind dat swamme met Mycoplasmas besmet is en hierdie toestand beïnvloed skynbaar toksienproduksie. Hierdie "besmetlikheid" word oorgedra na ander swamme wat voorheen nie die vermoë gehad het om toksiene te produseer nie. Dr. Rabie word bygestaan deur Annelie Lübben.

Mnr. W.J. Cronje vul die pos lektor en werk ook aan sy D.Sc.-graad op die onderwerp *Sclerotium rolfsii*.

Die Departement beoog dit om in die nabye toekoms ook 'n kursus in Plantbeskerming aan te bied wat 'n kombinasie van plantsiektekunde, insektekunde en ekonomie sal wees.

BOTANICAL RESEARCH INSTITUTE, PRETORIA: The Literature Abbreviation List issued by the Institute as a Technical Note in 1969 has recently been expanded and revised and a limited number is available on request to interested persons. The List comprises full titles and abbreviations of 359 periodicals and 415 books. Enquiries to the Director, Botanical Research Institute, P.O. Box 994, Pretoria.

DEPARTEMENT VAN MIKROBIOLOGIE EN VIROLOGIE, UNIVERSITEIT VAN

STELLENBOSCH:- Die personeel van hierdie departement bestaan uit vier lede. Prof. H.A. Louw, Hoof van die departement, het navorsingsbelange veral in voedsel- en grondmikrobiologie. Dr. M.B. von Wechmar stel belang in plantvirologie terwyl dr. H. Janse van Rensburg konsentreer op *Rhizobium*-werk. Mnr. N.F. Schoombee doen navorsing in die bakteriologie van kuilvoerbereiding.

Die departement gee die volgende kursusse met studentegetalle vir 1972:

Mikrobiologie I met 28 studente in Algemene Mikrobiologie en
16 in Mikologie.

Mikrobiologie II met 5 studente in Bakteriologie en 6 in Virologie.

Mikrobiologie III met 6 studente in Voedselmikrobiologie, 2 in
Gevorderde Virologie, 2 in Immunologie, 2 in
Fisiologie van Mikroorganismes en 1 in Grond-
mikrobiologie. Daar is geen studente hierdie

in Ontsmettingsleer of Suiwelmikrobiologie.

Mikrobiologie Hons.-B.Sc. met 7 studente.

Nagraadse studente - 4 besig met M.Sc. en 4 met Ph.D.

AFDELING NATUURBEWARING - PROVINSIALE ADMINISTRASIE ORANJE-VRYSTAAT:

Plantkundige navorsing: 'n Plantegroeikaart (1 : 10 800) van die Willem Pretorius-Wildtuin is deur mnr. D.B. Müller opgestel. Dit is gebaseer op 'n subjektiewe, visuele opname van die dominante plantsoorte in die reservaat wat op grond daarvan in plantegroeitipes ingedeel is. Die resultate word gebruik om 'n bestuursplan vir die wildtuin op te stel.

Prof. B. Roberts van die Departement Weidingsleer van die Universiteit van die Oranje-Vrystaat het reeds begin met plantkundige opnames in die wildplaas Tussen-die-Riviere. Die opname sal deur die afdeling se plantkundige voltooi word.

'n Publikasiereeks is deur die afdeling ingestel en twee uitgawes is reeds botanies-oriënteerde. Die een uitgawe handel oor die bome en struik van Willem Pretorius-Wildtuin. Die skrywer daarvan is dr. O.A. Leistner van die Navorsingsinstituut vir Plantkunde. Die ander uitgawe handel oor die vernaaamste grassoorte van die O.V.S. en word tans persklaar gemaak. Dit is saamgestel deur prof. B. Roberts met illustrasies deur Beverly Walpole.

Inheemse plantbestuur: Die seksie Inheemse Plantbestuur staan onder beheer van die senior superintendent van tuine, mnr. D. Dry. Die beskerming van die provinsie se inheemse plante is 'n belangrike funksie van die seksie. Daar word nou saamgewerk met die Vrystaatse Paaie-afdeling en die departement van Waterwese om bedreigde plante vroegetydig te verwyder uit gebiede waar paaie of damme ontwikkel word om dit elders nuttig aan te wend. Die seksie is ook behulpsaam met die verwydering van plante op plase waar boere uitbreidings beoog.

'n Tuinboukundige is aangestel vir die Voortrekkermonument te Winburg waar hy besig is met die uitleg en instandhouding van tuine om die monument.

Die aanplantings van plante langs provinsiale paaie word behartig deur 'n

padverfraaiingsseksie wat onder toesig van 'n tweede tuinboukundige staan. Daar is 'n groot tekort aan inheemse plante wat aangepas is by die strawwe klimaatsonstandighede van die Vrystaat. Die plante word benodig vir aanplantings op amptelike terreine soos by hospitale en skole en langs provinsiale paaie. 'n Kwekery vir inheemse plante is dus vir die doel aangê net buite Bloemfontein. Die kwekery staan ook onder toesig van 'n tuinboukundige.

S.W. CAPE BRANCH, (S.A.A.B.): The A.G.M. of the branch was recently held in Stellenbosch. The Committee of Mr. E.G.H. Oliver, Chairman, Prof. M.P. de Vos, Vice-Chairman and Prof. W.J. Lütjeharms remains as such for the second year of its term of office, while Mrs. S. Schelpe was elected as Hon. Secretary/Treasurer to fill the vacancy caused by Mrs. E.P. du Plessis moving to Pretoria.

Following the A.G.M. Prof. R. Bigalke, Professor of Nature Conservation at the University of Stellenbosch, gave members an outline of the courses provided at Stellenbosch and compared them to those at Pretoria.

Meetings during the last year:

1. 1 April (at U.C.T.): Prof. H. Straka and Mr. R. Haas of the University of Kiel in West Germany gave a report on their work dealing particularly with the ontogeny and morphological development of the Aizoaceae with particular reference to the capsules.
2. 12 August (U.C.T.): Dr. A.V. Hall of the Bolus Herbarium spoke on computer-based data-banking for biological collections.
3. 16 September (U.C.T.): Dr. J.P. Rourke of Kirstenbosch discussed evolutionary aspects of the genus *Leucospermum* (Proteaceae), part of his Ph.D.
4. 23 September (STE.): Prof. A.C. Brown of the Zoology Department, U.C.T., gave a thought-provoking lecture on evolution.
5. 26 October (STE. & U.C.T.): Prof. Knut Faegri of the Botanical Museum in Bergen, Norway, gave most interesting lectures on "Pollination Ecology - a new dimension".

6. 27 October (STE.): Prof. Frans Stafleu of IAPT spoke on "The Image of Plant Systematics in 1971". Several lectures were given in Stellenbosch and Cape Town by various delegates of the IUBS and were attended by members of SAAB.
7. 24 November (STE.): Members joined the Tak Biologie of the Akademie in Stellenbosch when Dr. J.J.A. van der Walt of Stellenbosch spoke about his research on *Commiphora*.

Excursion: One successful excursion was held on 3 October, 1971 when a visit was made to the area of Bokbaai just north of Cape Town. This coastal area has been in the Duckitt family for 125 years as a "nature reserve" and recently came into the news when moves were made to expropriate it under the Group Areas Act.

Project: Mr. H. Tölken is to be congratulated on the publication of the first South African Index Herbariorum.

Undoubtedly the most important event for the branch was the meeting of the IUBS Committee in Cape Town at the end of October and beginning of November. The CSIR must be thanked and congratulated for arranging and organising this valuable "breath of fresh air" to local biology. Members were able to meet the IUBS experts on several occasions, in particular at the extremely successful and enjoyable buffet supper held at the Guest House at Kirstenbosch on 28 October.

DEPARTEMENT PLANTPATOLOGIE, LANDBOUFAKULTEIT, BLOEMFONTEIN: Die departement het twee personeellede. Prof. G.D. Pauer maak 'n studie van *Rhizoctoma solani* in die grond veral met betrekking tot die rasse wat aangetref word en die invloed van verskillende gewasse en bemesting op die toename en afname van die swam.

Mnr. S.W. Baard (Senior Lektor) is besig met 'n studie oor die faktore wat die oorlewering van *Verticillium dahliae* in die grond beïnvloed.

Albei bogenoemde fungi is patogene van katoen. *V. dahliae* veroorsaak 'n verwelksiekte en *R. solani* infekteer saailinge.

DEPARTEMENT WEIDINGSLEER, LANDBOUFAKULTEIT, BLOEMFONTEIN:

Prof. B.R. Roberts, Hoof van die departement, is vanaf Januarie 1972 op besoek in Australië waar hy op die Navorsingstasie Charleville, Queensland, navorsing sal doen oor veldtoestand- en drakrag bepaling. Hy is veral geïnteresseerd in die bewaring en benutting van die opvanggebiede.

Die Senior Lektor, mnr. W.L.J. van Rensburg, is besig met 'n projek oor die koolhidraatmetabolisme by meerjarige grasse. Werk word gedoen oor die aard van die koolhidrate en die rol wat dit speel by hergroei en produksie van grasse op verskillende groeistadia.

Mnr. D.P.J. Opperman, Lektor, is besig met 'n projek oor die invloed van ontblaring op meerjarige grasse. Aspekte soos die invloed van ontblaring op produksie en wortelgroei word ondersoek. Die invloed van vogstremming op droë-materiaal produksie en wortelgroei word ook bestudeer.

Die kursusse in die departement behels aspekte soos ontblaringsfisiologie en fenologie, weiveldekologie asook kwantitatiewe ekologie en veldbestuur, 'n kursus waarin die ekologiese en fisiologiese beginsels dan in 'n veldbestuur-program toegepas word. Besondere aandag word gegee aan plaasbeplanning en grondbewaring veral in opvanggebiede.

SOUTH AFRICAN SOCIETY FOR PLANT PHYSIOLOGY: Notice has been received from The Royal Society of New Zealand that they will organise, in co-operation with the International Union of Biological Sciences and the International Association of Plant Physiologists, an International Plant Physiology Symposium on "Mechanisms of Regulation of Plant Growth", at Palmerston North, New Zealand, from 13 to 18 August, 1973.

Some of the proposed sections for discussion are the following (the list is not exclusive, however, and suggestions of related topics will be welcome):

1. Regulation of metabolism.
2. Responses to mineral environments.
3. Responses to light, temperature and water.

Short original papers on symposium topics are invited. Tentative titles

of papers are required by 1 September. Abstracts will be required by 15 April, 1973. The Royal Society of New Zealand will publish a volume containing papers presented at the Symposium.

A pre-Symposium tour commencing from Auckland and terminating at Palmerston North will be arranged. A post-Symposium tour from Palmerston North via Wellington to Christchurch will also be arranged.

Additional information may be had from Mr. G.K. Nevill, Executive Officer, The Royal Society of New Zealand, P.O. Box 12249, Wellington, New Zealand. He can supply those interested with an Advance Information Card, which should be returned to him not later than 1 September 1972 (return of the card does not involve any commitment).

In addition to the above Symposium, members will be interested to know that the 8th International Conference on Plant Growth Substances will be held at Tokyo from 26 August to 1 September 1973. This conference is organised under the auspices of the International Plant Growth Substance Association, with Professor K.V. Thimann as president and Dr. D.J. Carr of Canberra as secretary. Further information on the Tokyo meeting will be supplied as soon as it becomes available.

Die eerste Internasionale Kongres van Plantfisioloë, wat oorspronklik in Innsbrück (Oostenryk) gehou sou word, word nou vir 1974 in Oos-Duitsland beplan, vermoedelik in Halle, waar proff. K. Mothes en G. Günther (Potsdam) reeds met die organisasie besig is. Die presiese datum is nog nie vasgestel nie, maar sodra meer inligting beskikbaar is, sal dit bekend gemaak word.

ACACIA SPECIES OF NATAL: The 2nd edition of the Acacia Species of Natal has just been published by the Natal Branch of the Wildlife Protection and Conservation Society of South Africa (2 000 copies).

Written by Dr. J.H. Ross in simple form and with profuse illustrations, the book should become an invaluable field guide to all who are interested in the Natal countryside. Each tree has 2 pages or more to itself with photograph, distribution map and sketch.

The new feature of the 2nd edition is the inclusion of a sketch for each species showing the flowers, pods, leaves and spines. The artist, Miss Blythe Pascoe, has made an excellent job of the sketches which will greatly assist the layman to identify the 21 species of *Acacia* in Natal.

The author, Dr. Ross, obtained both the M.Sc. and Ph.D. degrees at University of Natal with theses dealing with taxonomic problems in the genus *Acacia*, with special reference to some of the Natal species.

The book sells for R1,00. Special discount prices have been arranged for bulk orders of 10 or more copies from *bona fide* educational institutions and all copies are available from the Secretary, Box 2985, Durban.

(E.J. Moll)

WESTERN CAPE SANDVELD FLOWERS: A book is being published in September dealing with the flowers of the Western Cape Coastal Belt where in most years a spectacular Spring display attracts an ever-increasing number of visitors.

The book will contain coloured illustrations of 500 species many of them for the first time. These are the work of Hilda Mason (Mrs. E. Axelson). The 84 colour plates will be arranged in families with notes on names, description and distribution and characteristic features in the text facing the plates.

The text is the work of Mrs. E.P. du Plessis in conjunction with the staff of the Compton Herbarium, Kirstenbosch, and other local and overseas botanists.

A Book Fund has been formed to help the Publisher, Struik, finance the publication. De Luxe subscribers copies (300 only) are being issued to those subscribing R45. Details obtainable from the Trustees, Western Cape Sandveld Flowers Fund, P.O. Box 1609, Cape Town.

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