



Nematological Society of Southern Africa

Nematologiese Vereniging van Suider Afrika

NEWSLETTER/NUUSBRIEF
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EDITORIAL

Dear colleagues,

We start the year with some great news!!! The first draft of the NSSA website is available and can be accessed. Please refer to the announcement.

In future the newsletter will be posted on the website.

Please refer to the President's letter regarding the Nematology short course, which will take place later this year.

Jeannie van Biljon

Newsletter editor

Jeannie van Biljon

Nematologist

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ANNOUNCEMENT - NSSA WEBSITE

Dear friends

The first draft of the Website of the NSSA have now been published to the internet. It is available at www.sanematodes.com. I would like to invite you to browse the website and send your comments to me. We would like to satisfy the needs of as broad a audience as possible, so please feel free to forward any suggestions to me. The design of the site is not set in stone and changes can be made. Also include any typing errors or other mistakes that you pick up in you comments.

Sincerely

Rinus Knoetze

Stellenbosh

Questions or comments? E-mail us at rinusk@nda.agric.za or call (021) 8091621

FROM THE PRESIDENT

Dear member and interested person

It has been some time since we last communicated, so I have a substantial bit of new information for you (in other words, keep reading!).

First I want to again congratulate and thank Mieke Daneel and her team for a superbly organised and informative Seventeenth Symposium at Hans Merensky Estate, Phalaborwa during May 2005. Apart from the academic exchanges, I was impressed (maybe awe-struck, rather!) by the extra-mural abilities and sporting skills of some, otherwise very dignified colleagues. I do not know what is happening, but the spirit among the congress-goers surely was the best I have ever experienced. I think some aches and memories picked up at this symposium will take long to fade...Just over a year from now you will be able to pick up where you have left (if anything is left to pick up...). We did not just socialise. There was a lot who worked very hard! Congratulation to Ethné Cameron who became an Honorary Member of the Society, Driekie Fourie, who was a co-awardee of the Rhône Poulenc trophy, Shaun Berry received the best-paper award, Esther van den Berg received the best-poster award, Lucas Ngobeni received the George Martin Scholarship and MC Pretorius, Rinus Knoetze and Greg Burger were newly elected to the Executive Committee of the NSSA. We wish Greg all the best with the arrangements for the 18th Symposium. We look forward to it.

During September 05 a number of us fortunates were able to attend the annual Soil-borne Diseases Interest Group Workshop in Stellenbosch. We were once again privileged and had the pleasure to be joined by our old friend and respected colleague, Patrice Cadet from Mont Pellier, France. There was a good representation on the workshop of Nematologists from all over the country and that made it possible for us to squeeze in the first meeting of the newly elected executive committee.

Unfortunately we could not manage to hold a workshop, which we envisaged to coincide with a follow-up visit to South Africa by Patrice, which we wanted to be held at Mieke's institute. This

was due to various other commitments and, dare I say, prior bookings that could (would) not be cancelled...Consequently a number of issues that need attention still need to be addressed, of which is not least the venue of the next (18th) symposium. Greg has reassured us, though, that everything is under control and he will in due course supply us with a number of options so that the arrangements could proceed.

This brings me to one of the more satisfying moments in my recent career, which is to be able to announce that our web site is alive: www.sanematodes.com. This is courtesy of Rinus Knoetze, our webmaster, who really made this possible. And did he not do a tremendous job? Visit the site and check out all the information already at your disposal! I would like to emphasise that what you will be seeing is cast in cyber space and not in concrete!! Please contact Rinus with queries or recommendations and we will be only too happy to accommodate any reasonable suggestion. List this site address in your "Favourites" folder, though, for this is where you will be able to obtain all available information about the Society in future. The information on the 18th Symposium will be posted here, as well as future and past Newsletters. Contact detail of current committee members and useful links are provided. As I said, more will follow soon. Isn't it wonderful?

Due to some information still lacking I can, unfortunately, not yet provide you with entry forms for the coming Nematology Short Course in Potchefstroom. The dates, however, are fixed: 19 – 30 June 2006 and the venue is PUK Campus of the North-West University (Potchefstroom). Full detail will be posted on the web site soon, but you may contact me in the mean time. Chances are good that the course will be well attended . Remember, the next one after this will only be in 2008.

There will be an announcement of the George Martin Scholarship in this edition of the Newsletter, as well as on the web site. Please attend to this if you need support for Nematology training during this year. Full detail is provided.

Please note, for the benefit of those who do not know, that African Plant Protection is available on the web as well, subject to subscription. Contact Mariette Marais at maraism@arc.agric.za. The Society continues supporting the journal by making an annual financial contribution, by publishing our biennial symposium abstracts in it (the latest has been submitted during January 06 for publication) and our members regularly publish scientific articles in it. Based on the close relationship between APP and the NSSA we will establish a link with their web site in due course.

The NSSA wishes to express our sympathy with Neil Theron, CEO of Potato South Africa, who is suffering a very serious health setback at the moment and we wish him a speedy and full recovery.

On a happy note I wish to conclude by congratulating Esther van den Berg from Biosystematics, PPRI, Pretoria, on her appointment to the Technical Panel of the FAO to lead the diagnostic protocols on Nematology for them. We are very proud of you Esther and proud for what you have done for Nematology, particularly for us in southern Africa during your distinguished career. Well done.

Kind regards to all.

Alex Mc Donald

mcdonalda@arc.agric.za

ESTHER VAN DEN BERG AS LEAD FOR THE DIAGNOSTIC
PROTOCOLS ON NEMATOLOGY ATTENDED THE 2ND MEETING
OF THE TECHNICAL PANEL ON DIAGNOSTIC PROTOCOLS,
MALAYSIA, 5-9TH DECEMBER 2005

BACKGROUND

South Africa is a signatory to the World Trade Agreement on the Application of Sanitary and Phytosanitary Measures (WTO-SPS) as well as to the International Plant Protection Convention (IPPC) - the international standard setting body for plant health, the purpose of which it is to coordinate global action for preventing the spread of pests and plant products in the international trade and to promote appropriate measures for their control.

As signatory member of the above agreements South Africa is obliged to participate in the standard setting process.

In 2001 a Standards Committee (SC) was established to manage the standard-setting process for developing International Standards for Phytosanitary Measures (ISPM's). In 2004 the Technical

Panel was set up to develop the diagnostic protocols for organisms of Phytosanitary importance and it was decided that the TP would come together for the first time in Penang, Malaysia in December 2005 to evaluate the first protocols. For this process seven experts for different groups of organisms were nominated. At the same time a list of experts scientists were chosen to act as the authors of these protocols and to assist the TP member in the drafting process.

During the past year early draft protocols for four nematode species viz. *Ditylenchus destructor*, (Potato tuber or potato rot nematode) *D. dipsaci*, (Stem and bulb nematode), *Bursaphelenchus xylophilus* (pine wood nematode) and *Xiphinema elongatum* (Virus vectors) were compiled.

MEETING

The meeting was held at the Golden Sands Resort, 20 minutes northwest of Georgetown on the island of Penang on the west coast of Malaysia, with the nine panel members present viz. Asna Booty Othman – host (Malaysia), Jane Chard – IPPC Secretariat (UK), Gerard Clover (New Zealand) Brent Larson – IPPC Secretariat (Italy), Lum Keng-Yeang (Malaysia), Ana Lia Terra (Uruguay), Jens-Georg Unger – steward (Germany), Daphne Wright (UK) and Esther van den Berg (South Africa).

At its first meeting in York in 2004 the TP identified nineteen pests for attention. Due to various problems with authors only eleven were ready for discussion. The panel considered three draft protocols in detail (*Trogoderma granarium*, *Tospoviruses* and *Xanthomonas fragariae*). After reviewing these, the panel decided that it was necessary:

- To redraft most of the protocols due to differences in the interpretation of detection and identification, incorporation of different methods, specific detail relating to sampling etc.
- That the "instruction to authors" needed to be updated to make it easier for the editorial teams. This was done in lengthy discussions and one of the panel members will redraft the instructions and these will be sent out in early 2006.

Various other matters were discussed such as changes to membership of the drafting teams, procedures for reviewing the country comments after adoption of the protocols by the Standards Committee (SC), priorities for new diagnostic protocols, criteria required for appointment of additional members for inclusion in the panel etc.

During 2005 the International Seed Federation (ISF) and the International Seed Testing Association (ISTA) had made requests to the IPPC Secretariat to work with the TPDP in the

production of diagnostic protocols for pests associated with seed. Representatives from both these organizations were invited to make presentations on their proposals. It was noted that both these organizations deal with pests of seed whereas the IPPC deals with pests associated with plants, plant products and other objects, and their process of considering topics and priorities differ. The TP could make use of their method validation processes and further co-operation, where necessary, will be considered.

All the above decisions will be recommended to the Standards Committee.

The nematode species *Ahpelenchoides besseyi*, *A. fargariae* and *A. ritzemabosi* were identified as the next group of species to be considered for diagnostic protocols after the next meeting of the TP.

The work programme for 2006 was finalized with 15 July 2006 being the last date for the handing in of the present protocols. The next meeting of the TP is scheduled for 16-20 October 2006, and will probably be held in Uruguay.



Back row:- Lum Keng-Yeang, Jens-Georg Unger, Brent Larson, Gerard Clover,
Asna Booty Othman
Front row:- Daphne Wright, Jane Chard, Ana Lia Terra, Esther van den Berg

FEEDBACK ON THE 7TH AFRICAN CROP SCIENCE SOCIETY CONFERENCE IN ENTEBBE, UGANDA

1. INTRODUCTION

The 7th Biennial Conference of the African Crop Science Society was co-hosted by the African Crop Science Society, Makerere University, National Agricultural Research Foundation (NARO, Uganda) and the National Agricultural Advisory Services (NAADS, Uganda). Personnel of the Makerere University in Kampala did the organizing.

Two hundred and sixty-six papers and √100 posters were presented. There were four concurrent sessions covering biotechnology, crop improvement, seed systems, food processing, utilization and value addition, socio-economics, marketing, agricultural extension, farmer empowerment and organization, genetics and breeding, agronomy, soil fertility management, policies, plant diseases and management of plant diseases, aquaculture, integrated farming, entomology and integrated pest management, crop protection, weed management, agricultural engineering, innovations for development, sustainable agriculture and the environment, farmer organizations and empowerment, integrating livestock research and production in arable farming, management of arthropod pests, soil science, nematology and agro forestry. The university of Natal, ARC-VOPI and ARC-IIC had representatives at the conferences.

During the opening session it was mentioned that 61 million people face food shortages and that approximately 6 million children die of malnutrition.

2. Major constraints in Africa

Drought, pests, low yields, soil fertility problems, land degradation, poor agricultural policies are some of the problems that exist in Africa.

Food security is influenced by poverty and HIV/AIDS. Eradicating poverty and combating HIV/AIDS might help to overcome some of the mentioned problems.

3. Nematodes

The paper on the "Impact of land use changes on nematode diversity and abundance" concluded that nematode diversity and abundance decreased with intensity of land cultivation or human interference.

Certain green manure legumes such as *Crotalaria juncea*, *C. ochroleuca*, *Desmodium uncinatum* and *Mucuna pruriens* can be utilized to suppress root-knot nematode populations

Sufficient supply of potassium in balanced amounts with other cations (calcium and magnesium) may help to mitigate nematode damage in bananas.

In a nematode survey of plant parasitic nematodes associated with cereals in Uganda four genera, *Pratylenchus*, *Ditylenchus*, *Helicotylenchus* and *Scutellonema* occurred more frequently than the other genera. *Aphelenchoides arachidis*, a seed-borne endoparasitic nematode of peanuts and cereals was reported on maize in one of the sites that was surveyed. The latter suggests a significant phytosanitary risk to all groundnut and cereal producing countries.

The effect of the root-knot nematode, *Meloidogyne incognita* race 4 on the growth and development of the cotton plant showed a reduction in root mass and plant height for the various cultivars. Different growth responses of *M. incognita* race 4 were observed in the various cotton cultivars.

4. The new ACSS board for 2005 – 2007 is as follows:

President	Prof. Mateete Bekunda (Uganda)
Vice-president	Prof Z A Kasem (Egypt)
Representatives	
(a) West Africa	R T Awuah
(b) East Africa	Dr Florence Olubayo (Kenya)
(c) North Africa	R Sammour
(d) Southern Africa	A Mashingaidze (Zimbabwe)
(e) Central Africa	Dr Dominic Fontem (Cameroon)
Representative of the women	Dr Hutchinson (Kenya)
Ex Officio members	Dr G D Joubert (South Africa)
	Prof. Okalebo (Kenya)
	Dr A Y Kamara
Immediate past president	Prof A W Mwan'ombe (Kenya)

Jeannie van Biljon

ARC-IIC, Rustenburg

jeannievb@arc.agric.za

NEMATOLOGY INITIATIVE FOR EASTERN & SOUTHERN AFRICA (NIESA)

NIESA is an independent and objective network of scientists from Kenya, Malawi, Uganda, Tanzania and Zimbabwe, in partnership with UK scientists from the University of Reading, CABI Biosciences and Rothamsted Research. It started 2005 with support from the Gatsby Charitable Foundation.

NIESA's KEY OBJECTIVES:

- Raise awareness of the damage caused by nematodes
- Pool and share existing information and technical skills within the region
- Carry out collaborative research programmes in Nematology
- Develop nematode management systems that can be adopted locally and contribute to sustainable horticultural production

With support from The Gatsby Charitable Foundation:

- NIESA has acquired equipment for establishing six Nematology research laboratories
- Graduate students are being trained in Nematology
- An interactive website is being developed
- Regular regional meetings will be hosted
- Collaborative research aimed at developing sustainable nematode management systems has been initiated

Are you a Nematologist or interested in Nematology and working in the East and Southern Africa? Would you like to participate in NIESA activities in the East and Southern Africa region? Then contact any of the persons whose emails are below:

East and Southern Africa region

Tanzania: Cornell Massawe (massawese@yahoo.co.uk), Nessie Luambano (nluambano@yahoo.com)

Malawi: David Kamangira (davidkamangira@yahoo.com)

Uganda: Herbert Talwana (haltalwana@agric.mak.ac.ug)

Kenya: John Kimenju (wkimenju@yahoo.com), Waceke Wanjohi (waceke@fulbrightweb.org)

Zimbabwe: Zibusiso Sibanda (msibanda@ecoweb.co.zw)

UK CONTACTS

Rothamsted Research: Brian Kerry (brian.kerry@bbsrc.ac.uk)

CABI Biosciences: David Hunt (d.hunt@cabi.org)

University of Reading: Simon Gowen (s.r.gowen@reading.ac.uk)

Herbert Talwana

Makerere University
haltalwana@agric.mak.ac.ug

NEWS FROM ARC-GRAIN CROPS INSTITUTE

People: Caroline Leswif, Nancy Ntidi, Moses Lesufi (Masters students) and Sonia Steenkamp (Ph D) gave presentations at the North-West University, PUK Campus in fulfilment of the requirements for their respective degrees. Other Crop Protection students who successfully wrote papers in Nematology at the end of last year include André Groenewald, Belinda J van Rensburg, Ernst de Beer, Thsiamo Mothata and William Weeks. Thsiamo is the first student

under the IDEPP banner who finished the theoretical part of the course. She will submit her dissertation soon.

Alex Mc Donald was a co-study leader and examiner of the Ph D of Hugues Baimey from Benin, who studied under Nico Labuschagne of University of Pretoria and Danny Coyne of IITA. Baimey passed the final hurdle in the form of an oral defence during January 06 in Pretoria. Alex also delivered the opening address at the 44th Congress of the SA Society for Plant Pathology at Magalies Park near Brits. The best experience there was to run into a number of Nematologists that attended the congress!

We are happy to be able to report that Don Loots has recovered well after he has experienced a serious setback in terms of his health. He is back in the office and as vigilant and enthusiastic as ever.

The Grain Crops Institute of the ARC has gained two new staff members, viz. Mme. Lizette Bronkhorst and Belinah Matuli. Hangwani Muedi (Personnel Development Programme) and Lucas Ngobeni (Department of Arts and Science) have also joined the Nematology Unit as students of the respective programmes and they are mentored by Driekie Fourie and Alex Mc Donald, respectively.

Places: Driekie and Alex have attended the annual Soil-Borne Diseases Interest Group workshop in Stellenbosch during September 2005, during which Alex made a presentation on plant nematodes' interaction with other soil-borne organisms. After the workshop they attended an executive committee meeting of the NSSA at Infruitec, courtesy of Hans Hugo.

Driekie and Alex also paid a visit to Mieke Daneel (again!) in Nelspruit and they were joined by William Mashela from University of Limpopo to discuss progress with the VLIR project.

Activities: The Nematology lab of ARC-GCI is as busy as ever. They have had various levels of success with finding resistance to nematodes in dry beans, maize, soybean (root-knot) and groundnut (pod nematodes). The proposal to Potato South Africa that would have involved various Nematology groups was, unfortunately not successful. New entries onto the nematicide market are, however, being tested on various crops. Belinda J van Rensburg, a plant pathologist in our Department has isolated an *Aphelenchoides* sp. from maize kernels and Antoinette Swart from Biosystematics in Pretoria is handling its identification for us. This coincides nicely with *Aphelenchoides* *arachides* that has been identified from groundnut from the Vaalharts Irrigation

Scheme by Antoinette and Moses Lesufi of the Department of Agriculture, who is also a student at Potch.

The Nematologists from Potch.

NEWS FROM NELSPRUIT - Citrus Research International

MC Pretorius received his master's degree in Agricultural Science from the University of Stellenbosch on 13 December 2005. He completed his thesis, "Epidemiology and Control of *Pseudocercospora angolensis* Fruit and Leaf Spot Disease on Citrus in Zimbabwe", under guidance of Prof. G. Holz and Prof. P W Crous.

MC is the research coordinator for soil-borne diseases on citrus. He is currently conducting a number of trials to evaluate the effectiveness of chemical, biological and alternative non-toxic products against the citrus nematode. Other soil-borne diseases, which are also being investigated in conjunction with the diagnostic Centre, are for example, *Phytophthora*, *Fusarium* and *Armillaria*. It is hoped that this nematode research will lead to a PhD in this field in the near future.

LauraHuisman

Citrus Research International

NEWS ITEMS OF POSSIBLE INTEREST FROM OUTLOOK ON PEST MANAGEMENT FEBRUARY 2005:

Montreal protocol exempts MeBr for critical uses

At an international conference on protecting the ozone layer, governments have agreed to allow the US and other industrialised nations to continue the use of methyl bromide in 2005 for "critical" uses, even though the soil fumigant was due to be phased-out in developed world agriculture from 2005. USA, Australian, and European farmers say the existing methyl bromide alternatives are not sufficiently effective in some crops and they asked for exemptions for 2005 and 2006. Exemptions of just over 2,600 tonnes were agreed for 2005 on top of the 12,150

tonnes agreed in March 2004. A total of slightly over 11,700 tonnes worth of exemptions was agreed for world farmers for 2006. The US may use about 37% of the amount of methyl bromide it used in 1991 (although it still uses 20,000 tonnes/y), but it will receive only a 27% exemption for 2006, rather than the 37% sought. But a further 3,000 metric tons worth of exemptions for the US and other nations were "provisionally" approved for 2006. (For more information see <http://www.chemicalmarketreporter.com>)

(In comparison: South Africa's MeBr usage was determined at 1,007 tonnes before phase-out started. South Africa is now down to 500 tonnes/y.)

* * * * *

Banana workers launch U.S. lawsuit

Five chemical corporations in the USA are being sued in a lawsuit filed by thousands of Costa Rican banana workers, who are seeking damages from exposure to dibromochloropropane (DBCP). DBCP, a soil fumigant offered under the trade names Nemagon or Fumazone, controls burrowing rootworms or nematodes. The soil fumigant is believed to cause depression and impotence, and suspected to cause miscarriages, birth defects, testicular atrophy, and cancer. The five companies are Dole foods, Chiquita Brands International Inc., Dow Chemical Co., Fresh Del Monte Produce Inc, and Shell Chemical Co. Dow Chemical and Shell Chemical are accused of continuing sales of pesticide in Costa Rica even as production of DBCP by the companies was stopped in the 1970s. The produce companies are accused of continuing to oversee the application of the pesticide on their banana plantation. (For more information see <http://www.panna.org>)

Hans Hugo

INFRUITEC

NEMATOLOGICAL SOCIETY OF SOUTHERN AFRICA GEORGE MARTIN MEMORIAL SCHOLARSHIP

Applications are invited for the "GEORGE MARTIN MEMORIAL SCHOLARSHIP" tenable for the year 2006. The award, to the value of R 2000.00 is open to persons from countries of southern

Africa: South Africa, Botswana, Lesotho, Swaziland, Mozambique, Malawi, Zimbabwe and Namibia.

The purpose of the scholarship is to promote nematology in southern Africa, preferably by assisting the successful candidate to attend a recognized course in nematology.

Applicants must be serious about pursuing a career in nematology and about furthering the science of nematology. The successful candidate will be expected to give a paper at the next NSSA symposium and/or report in the Society's newsletter how the funds were used.

A letter of application and a curriculum vitae should be sent before 30 April 2006 to:

Dr Alex Mc Donald
Divisional Manager – Crop Protection
Agricultural Research Council – Grain Crops Institute,
Private Bag X 1251, Potchefstroom, South Africa
Tel: (018) 299 6369 / Fax: (018) 294 7146 (Int: + 27 18)
mcdonalda@arc.agric.za

OR

Dr Driekie Fourie
E-mail address: fouriehd@arc.agric.za
Postal address: ARC – GCI, Private Bag X1251, Potchefstroom, 2520
Fax: +27 18 294 7146
Tel: +27 18 299 6352

NEMATOLOGICAL SOCIETY OF SOUTHERN AFRICA
NEMATOLOGIESE VERENIGING VAN SUIDELIKE AFRIKA
APPLICATION FOR MEMBERSHIP

I _____
(Name of applicant)

apply for membership of the Nematological Society of Southern Africa.

I am enclosing _____US \$ for the period 19____ - ____ (RSA member: R 50.00/annum;

Non-RSA member _____ US \$ 25.0/annum)

Please make cheque payable to:

Nematological Society of Southern Africa, and sent to:

Mrs Driekie Fourie Agricultural Research Council – Grain Crops Institute,

Private Bag X 1251, Potchefstroom, South Africa

Tel: (018) 299 6352 / Fax: (018) 294 7146 (Int: + 27 18)

NAME: Prof./Dr/Mrs/Miss _____

ORGANIZATION _____

ADRESS _____

POSTAL CODE _____

% NO _____ AREA CODE _____ INT. CODE _____

FAX NO _____ E-MAIL _____

DATE OF BIRTH _____

PROFFESIONAL QUALIFICATIONS _____

PRESENT POSITION _____

INTERESTS/ CURRENT RESEARCH / EXTENSION _____

NEMATODE GROUPS _____

OLD MEMBER: Yes / No _____ SINCE _____

NEW MEMBER: Yes / No _____ DATE OF APPLICATION _____

SUSTAINING MEMBER: Yes / No _____

SIGNATURE _____ DATE _____

