

tree pathology news

NEWSLETTER OF THE TREE PATHOLOGY
COOPERATIVE PROGRAMME
UNIVERSITY OF PRETORIA

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DIRECTORS REPORT

This issue of Tree Pathology News is the first coming from our new home at FABI – The Forestry and Agricultural Biotechnology Institute of the University of Pretoria. Those of you that follow the timing of our newsletters carefully, will also have realised that its arrival has been delayed somewhat. This can be attributed wholly to the tremendous upheaval that has surrounded a move that is generally recognised to be one of the largest moves of its kind, EVER.

By the time you receive this newsletter the last full time members of the TPCP family will have moved to Pretoria. Thus some 55 people linked to the Programme, including children, spouses, friends and even some domestic animals (including a small herd of cattle!!) will have been relocated. Just the other day, one of our team members noted "Looking back on the move, we must have been entirely insane to even consider it!!". Well this might be so on the one hand, but on the other, the entire process has proceeded with amazing efficiency. Team members have been absolutely fantastic in offering their assistance in the most unselfish ways imaginable (a key feature of the nature of the TPCP Team), and the Programme is now running effectively from its new home in Pretoria.

It would not be accurate to say that we have completed the process of establishing FABI – or fabulous FABI as some people know it. I for one certainly underestimated the extent of the task of establishing an entirely new institute. Moving to an existing building where phone lines,

water, gas, optical cables etc. already in existence is one matter. But to have to re-establish these services, in a building which was only a 'twinkle in the eye' of a few of us is another matter. Yet we now have most of our required services 'on line' and are situated in what is commonly held to be the most beautiful building on the Campus of the University of Pretoria. Our research facilities are 'state of the art' and the entire research infrastructure would compete well with the best Institutes of this kind in the world. This is truly a 'perfect landing' for the TPCP that has, with the support of so many of you – become one of the strongest Tree Pathology Research Units in the world. A true credit to Forestry in South Africa.

One of our objectives during the process of moving the TPCP to Pretoria has been to maintain continuity of our support and research programmes. I believe that it is fair to say that this goal has been most effectively reached. Perhaps our greatest success has been to maintain the activities of the TPCP Diagnostic Service. This has not been without difficulty, often having to prepare cultures and undertake microscope investigations- surrounded by packing boxes. We all owe a debt of gratitude to Dr. Teresa Coutinho who manages the Diagnostic Service – and to her able team of assistants – Marieka Venter, Juanita de Wet and Bernard Slippers for their dogged determination and resolve.

The establishment of the FABI is one of the most exciting



developments in the history of Forestry Research in South Africa. The Institute and its activities will provide a great boost to the TPCP and also to the Forestry Molecular Biology Co-operative Programme (FMBC). The Institute has already begun to grow – perhaps a bit faster than I had anticipated. What we would now like to do is to share this growth and excitement with you. So do come to visit us when you are in the Pretoria area. We will of course also be holding out annual meeting here next year – so will have an opportunity to entertain you here at that time too.

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A FABI science awareness programme was launched on Saturday, 23 May 1998. Pupils from local schools were part of this programme. The aim of the launch was to provide pupils with an opportunity to discover the science of forestry. Prof. Mike Wingfield and Dr. Dennis Wilson introduced them to fungi and the concept of "Keeping trees healthy". On the next two Saturdays, Prof. Anna-marie Oberholster and Prof. Brenda

Science Awareness Programme

Wingfield gave them the opportunity to learn more about the current techniques used in the manipulation and study of plants and fungi. Dr. Teresa Coutinho and Dr. Oliver Preisig wrapped up the programme on Saturday 13 June with lectures on biological control and fungal viruses. The pupils' enthusiasm was a good indication of the success of the programme and the need to make this an annual event.

Swedish Forests and Forest Certification

Jolanda Roux (Manager: TPCP Field Services) was able to attend an International Training Programme on Forest Certification in Sweden from 10-29 May 1998. This programme was sponsored by SIDA (Swedish International Development Co-operation Agency) in co-operation with the

Swedish certifying agency, Svensk Skogs Certifiering AB (SSC) which is a subsidiary of Orgut Consulting AB, The Swedish University of Agricultural Sciences (SIMS) and WWF.



A group of participants to the Training Programme listening to an explanation of felling strategies and Certification requirements before a final felling.

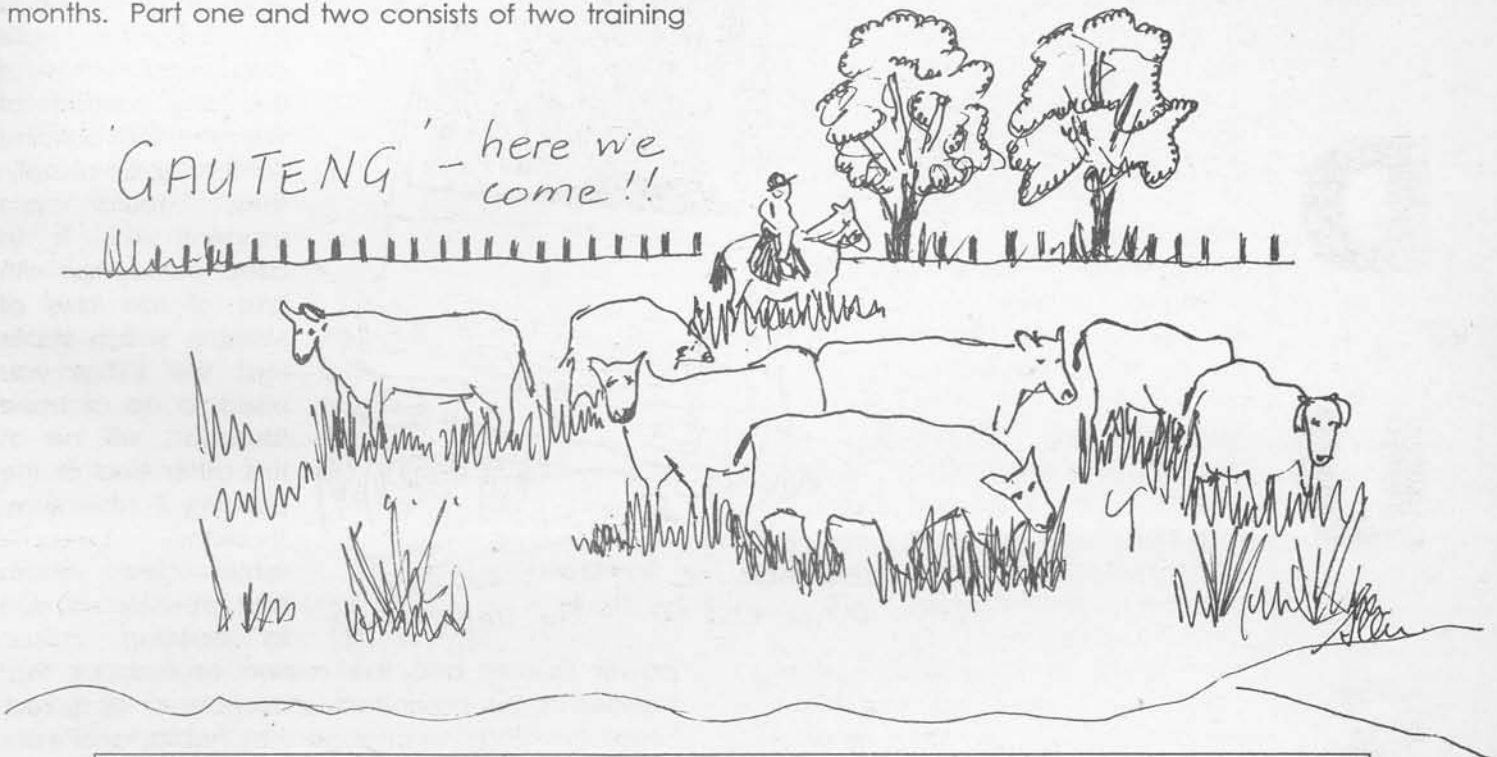
The objective of this training programme was to introduce Forest Certification and Environmental Management Systems to participating countries.

With the changing attitude towards forestry and the active involvement of the public, through NGO's such as WWF, Greenpeace, Friends of the Earth and others, more pressure is being placed on forestry companies. It has thus become critical for forestry companies to implement responsible management practices. The practices have to ensure that forests, both tropical rain forests, arboreal forests (such as in Sweden) and plantations are managed in such a way that the environmental and social impacts are carefully balanced with economic considerations. The unregulated destruction of native forests and other key habitats has become unacceptable and will in future not be tolerated.

The training programme has previously been highly successful and has resulted in the successful formulation of certification standards in a number of developing countries. The training programme consists of three parts spread over a period of 7 months. Part one and two consists of two training

periods, of which the first one was held in Sweden. Each year the second part has been hosted in a different country. This year it will be held in South Africa from 26 November 1998. This was the third year that the programme has been presented. Between the two training periods pilot activities, related to some aspects of forest certification, must be implemented in each of the participating countries. During November participants will report on the progress made with the pilot activities.

The TOCO was proud to have Jolanda included as one of the South African representatives at the training programme, since a number of South African forestry companies have already had some of their plantations FCS certified and are in the process of further certification, either FSC or ISO 14001. In the next issue of the Newsletter Jolanda will provide more detail not only about certification and the Swedish situation but also on the art of moose watching and on the eating of moose! Perspectives, particularly from a forest/tree disease standpoint will also be presented.



THE RESEARCH TEAM OF THE TREE PATHOLOGY CO-OPERATIVE PROGRAMME

The research team of the Tree Pathology Cooperative Programme is varied. It includes full time staff of the University of Pretoria (Prof M.J. Wingfield, Director and Mondi Professor, Prof. B. Wingfield, Dr. T.A.Coutinho, Dr. A. Viljoen and Dr. T. Aveling), colleagues and students attached to other organisations such as the ICFR, technical assistants funded by the University or through membership fees and post graduate students who are mainly funded by the FRD. Staff from various Departments in the University obviously provide advice and support where this is required.

-by Marieka Venter

There is a picture on someone's desk of a duck that is swimming cool, calm and collected on a pond, while its legs are frantically paddling underneath the water. On the picture the following words are written: "The secret to success is to stay cool and calm on top, and paddle like crazy underneath". I do not know whether we remained "cool, calm and collected", or whether something of the craziness underneath showed through. All I know, is that when we stood like "new kids on the block" in front of our new FABI building, we did not quite know what still lay ahead for us.

What happened before that day, could be said in short: quite extensive packing. The daunting task of packing the research of ten years, stood lining the corridors of the Department of Microbiology and Biochemistry Building. Unfolded boxes and bubble paper decorated the few available spaces, (packaging tape, however, was usually missing). The refrigerator clean up yielded forgotten experiments which nobody knew the purpose of anymore. For some, coping with so many things at once, had its price, namely the mysterious disappearance of an alcohol bottle and other equipment. This prompted one to carefully hide one's own possessions and guard them with an eagle eye.

arrive, and when it eventually did arrive, the secret hope of some of us that perhaps the truck would disappear, vanished..... 'Operation Unpack' started. This operation, which we thought would take only a few days, turned out to take at least two weeks. The reasons are numerous. Try to unpack in non-existent or tumbling down cupboards, in places where somebody was still working, underneath ladders and amongst buckets of paint, while an edgy Italian foreman is trying to meet the demands of the architect and "the professor". However, along with the hard work, somebody thought of us, since we were treated with a scrumptious meal of the finest cuisine.

The people working in FABI in the weeks to come, all developed certain key characteristics. Firstly, everybody looked a bit fatigued, pale and sore because of the long corridors of the new FABI building (which, unfortunately, they could not shorten). This is in direct correlation with one of the laws of Murphy, which states that the things you need to do or have forgotten, will be at the other end of the building. Furthermore, 'Fabians' became rather deaf, numb and bewildered due to building noises,

power failures and the myriad of hiccups that needed to be organized, sorted out or acquired. Some even had to change their habits, and were at the building even before the earliest of early birds, not to catch the early workers but to unlock the hundreds of locks for the workers. (These locks, as logic states, needed to be locked the night before. Sometimes a whole army of people were needed for this task.) And through all of this, the cleaning ladies were always present, fighting a



Oh! please
let there be someone at the
other end to do the unpacking!

EXODUS

Once in Pretoria, we spent some time standing in front of our new building, waiting for the truck to

futile battle to keep FABI clean. However, they turned out to be more powerful than they seemed to be at first, because they were able to stop all work for a full two days (without any notification), in order to seal the floors of the labs.

After most things (and tempers!) cooled down a bit, valiant attempts were made to resume work since, the show must go on. However, without some bare necessities, it is exceedingly difficult to do science. Simple things like paper towels, alcohol, Petri dishes, microscope slides, and matches or lighters were dearly missed (and should be treated with more respect by all scientists). We were assured that the gas was working, but it appeared that it was not as simple as it had been in the past. More difficulties faced late-working 'Fabians', who had to face dangers like turning the alarm system on and off without setting the alarm off. (I hear from reliable sources that the acoustics of our building are very good.) And still the hundreds of keys for the hundreds of locks ruled everybody's lives, and gave everyone an identity crisis since the complicated numbering of the rooms was changed again, and again, and again...

Another issue that begs to be mentioned, is the e-mail, or rather the absence of e-mail. There is a very good lesson to be learned from our experience: never, ever think that setting up a network for a new building is a straight forward, quick job. Rather prepare yourself to be cut from the outer, high-tech world for several weeks. But with the help of a very unselfish lady, here we are on line again.

Another lesson to be learned, is never to expect too much from a person that is part of a big move-

cum-construction process, since everything has its costs. Many personal belongings were lost, and important appointments forgotten due to coping with the many things that needed to be sorted out.

Of course there must be a reason for our exodus,



Goodbye!Some are off to PretoriaOthers stay behind

and that is fabulous FABI. This is the state of the art institution, where state of the art people, can work with state of the art equipment. It is the realization of a dream, and indeed a great privilege to be part of it all. One feels proud every time you go into the building (especially when people are looking), and when you have to show someone around. One glance into the Visitor's Book will show that FABI is able to sell itself, as phrases like "Great institute", "Impressive" and "The beginning of a great future" pass your eyes.

As I see a weathered old spray bottle with "Lab 29 Alcohol" written on it with a permanent marker, and I shall fondly miss those who have stayed behind.

TPCP Annual Meeting

By Henriette van Heerden

The annual Tree Pathology Co-operative (TPCP) meeting was eventually held in Bloemfontein. Initially the University of Pretoria was to be the venue but due to various complications, it was finally decided to hold the meeting at the UOFS. Mr. Mike Edwards, Executive Director of the Forest Owners' Association gave an interesting opening address reminding us that time and money invested in research is time and money well spent and this will eventually benefit any company financially. [A summary of Mr. Edwards' presentation is on pg.8]. Mike Wingfield then reviewed the activities of the TPCP

during 1997. This included the move to FABI, current research activities and happening within the team of the TPCP.

Members of the programme were bombarded with information on forest pathogens. This included identification, diagnosis and research on a wide range of aspects of forest pathology. The Forest Molecular Biology Co-operative (FMBC) Programme activities were also discussed. Research conducted on important pathogens such as *Armillaria*, *Cryphonectria*, *Coniothyrium*, *Sphaeropsis*, *Botryosphaeria* and FSP were presented in some detail. The audience was also introduced to new pathogens such as bacterial wilt of Eucalypts and bluestain of pine lumber.

The annual meeting was once again a huge success. The highlight for many was the dinner at the Beef Baron sponsored by the members. The food was great (as per usual) and we talked about forestry and tree diseases as well as other interesting subjects. I once again realised that the annual meeting is not only where research and science of forest pathogens is discussed. This meeting brings together people who are interested in different aspects of forestry but work towards a common goal – KEEPING TREES HEALTHY!

See you at next year's meeting in Pretoria at FABI....

FAREWELL PARTY

Edzard Grimbeek's reports.....

The TPCP had been operating successfully at UOFS for ten years. The end of March brought to a conclusion 10 years of many highlights, successes and many happy memories. The farewell party took place in the stables of the "Ou Presidensie" which had been renovated and is now a very popular restaurant "Die

What on earth are they doing.....
the Cha-cha or the Toi-toi!



Stalle". Tienie Kloppers, the caterer we used for all the TPCP lunches, owns the restaurant and as per usual the food was great. The many bottles of wine consumed made this into a festive rather than a sad occasion. A local band provided the music and Bongani and Susie entertained us with some rather interesting dancing....

Three red combis and the TPCP venture filled with young (and not so young) enthusiastic scientists set out from the north and south to make their contributions at the 36th Congress of the Southern African Society for Plant Pathology. The venue for this year's congress was Champagne Sports Resort in the Drakensberg. The meeting opened on Sunday the 25th of January with 170 attendees from various universities, the Agricultural Research Council and private companies. From Monday to Wednesday, the days were filled with cutting edge science and occasionally heated discussions. Fifty-three seminars were presented and 72 posters were exhibited. Among the attendees were five keynote speakers internationally recognised in their field of research. The TPCP/FMBC students were once again at the top of the rank. Jollie was awarded first prize for presenting the best paper!! Two of the students, Cassi and Albe, were among the best young and upcoming pathologists and were awarded a bursary to cover their conference costs. Integrated in this year's congress was a workshop which addressed the matter of applied versus basic pathology. This debate proved both educational and entertaining.

Mike surprised us all by only giving a 15 minute speech (this is a record). This was the saddest part of the evening – having to say goodbye to people who have come with us a long way – Chrissie Moolman, Susan Christie, Christa Coetsee, Cecilia Zamba. All in their own way have made tremendous contributions to the TPCP and will always be remembered.

SASPP CONGRESS 1998

The Congress was not all work and no play – Albe, Percy and Andre were almost as good with their pool cues as with their Gilson pipettman. Jollie also showed her skills in drinking beer from rather awkward positions in the Mildenhall Stakes. The social event of the congress was the Rock and Roll theme party on our last evening. Dressed up in our 60s clothes and gelled back hair, we all danced the night away, including our very own Wingfield couple! The 36th Congress was an unforgettable experience and as this year's T-shirt says: Plant Pathologists are fungi's!!!!



Marieka Venter,
Riaana Jacobs and
Johannes van der
Merwe enjoying
the evening at
"Die Stalle"

“INVESTMENT IN RESEARCH PAYS”

Herewith is an extract from the opening address given by Mr. Mike Edwards, Forest Owners Association, at the 8th annual meeting of the TPCP. Key issues discussed by Mr. Edwards are presented here

A highly competitive environment is not a luxury but a necessity. With a well defined, well funded and goal orientated

research programme only the inevitable can happen – an ever accelerating decline in competitiveness, a feeling of hopelessness and eventually no feeling at all as you would have ceased to exist.

The SA forestry industry is today living in an extremely competitive, global environment. Not only do we have to compete against our natural market predators through the guise of alternative products to wood but we have to compete against international predators whose research capacity and innovation far surpasses what we have here in South Africa. We have no option but to compete and to do so we have no option but to maintain a relevant, efficient, world class research capability. It is only through research that we can hope to maintain our well being.

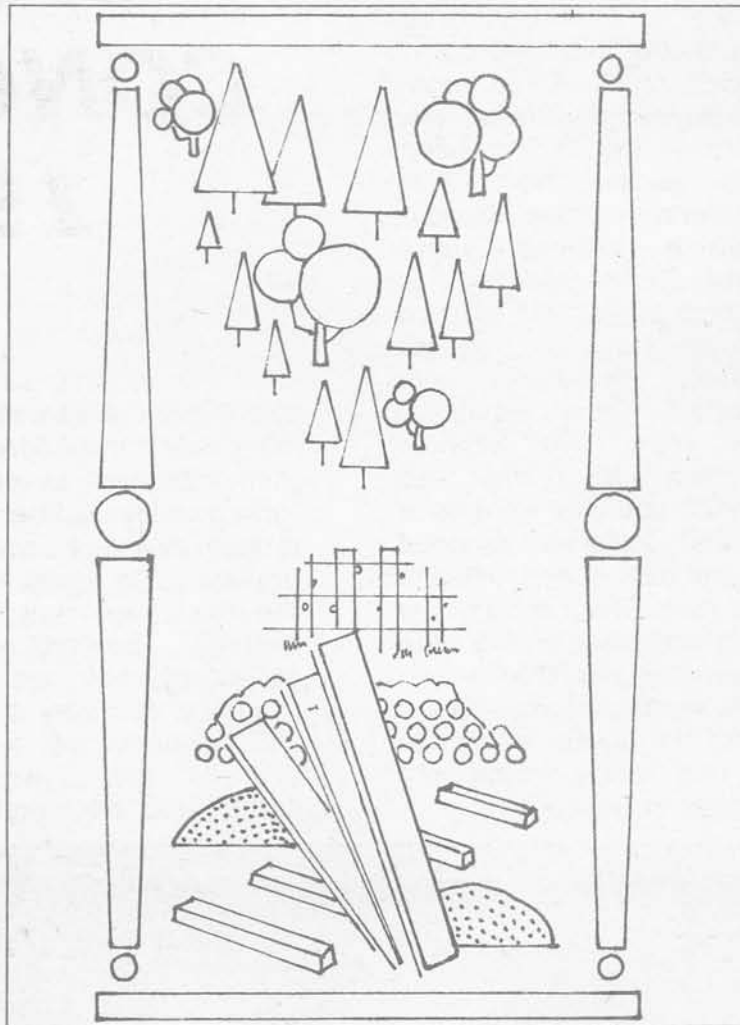
It is evident from Mr. Bill Dyck's research report that all is not well and that research in the industry is on the decline, despite there being some positive

developments. An analysis of research funding for the periods 1990/91 vs 1997/98 clearly indicated that we are “going backwards”. Government

funding of commercial forestry research has dropped from 47.5% of the total in 1990/91 to 15.8% in 1997/98, a decrease equivalent to 69%, private sector funding has increased from 52.5% of the total in 1990/91 to 84.2%, an increase equivalent to 49%, in real terms funding for commercial forestry research over the period has declined by 51% or around 9.7% per annum.

The question was asked – will the industry be able to meet the wood demand. There is a limited ability to meet future demand through expansion of resource base. We need considerably more

timber and we have a limited ability to do this through expanding the resource base. Mr. Edwards made suggestions as to what we should do – we have to get smarter, we have to become more efficient and we have to learn to produce more from what we have already got, and in an innovative manner” The key to meeting future resource



requirements must therefore lie in improving the productivity of existing plantations through research and through human resource development. He suggests that three areas should be focused on: the improvement of plantation yields, the enhancement and improvement in forest protection and improvement in forest recoveries.

The question of tree diseases is becoming ever more critical and according to the latest TPCP report a number of new disease problems have been identified during the last year. So plantation surveillance and pathology analysis by the TPCP is assuming an ever increasing critical role.

It is becoming increasingly necessary to learn how to improve forest recoveries in the harvesting process. No longer can we tolerate a situation where recoveries are in the order of 70% of available fibre. We have to utilise everything. Not only this but

research on the impacts of harvesting on site productivity has to be a priority. Research on yield improvement can come to nought if the sites are unable to sustain this productivity due to for example soil compaction during harvesting operation. So some of the areas for research in this field would be plantation planning, whole tree utilisation, harvesting systems, roads and transportation, and biomass utilization.

If adequate and effective research in these fields is done, we could go a considerable way in meeting our future wood requirement needs. From a pure financial viewpoint I have no doubt that an investment in research would be a far more viable alternative than investing in expanding the resource base through the development of new plantations.

INVESTMENT IN RESEARCH PAYS



Jolanda Roux and Len van Zyl enjoying the food. In the background are Brenda Wingfield and Rudi and Karin Jacobs



Teresa Coutinho, Len van Zyl, Wilhelm and Sonja de Beer and Bongani Maseko

IMPORTANT : PLEASE READ THIS

In order for us to coordinate our services to you please help us by using the following contact address:

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