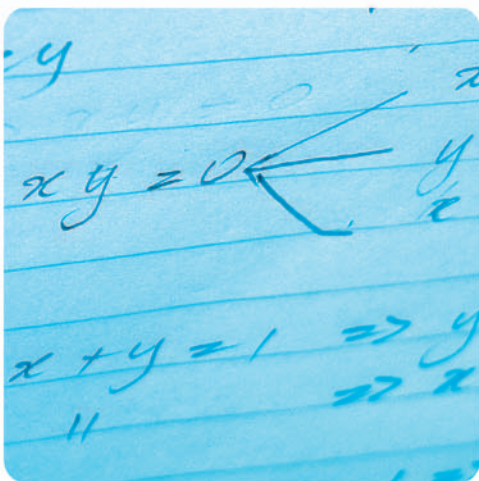
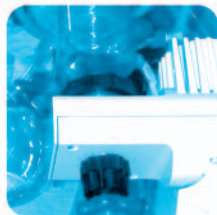


Faculty of Natural and Agricultural Sciences

Report 2008



Faculty of

**Natural and
Agricultural Sciences**

Report 2008

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Lacea Loader

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Nanette Lötter
Corrie Geldenhuys

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Mercia Coetzee

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Leonie Bolleurs
Stephen Collett
Reinier Brönn

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Contact details

Dean

Prof. Herman van Schalkwyk
+ 27 51 401 2535
hvs.sci@ufs.ac.za

Office of the dean

Ms Lorinda Rust
+ 27 51 401 2322
rustl.sci@ufs.ac.za

Faculty manager

Mr Johan Kruger
+ 27 51 401 2490
krugerjd.sci@ufs.ac.za

Marketing and liaison

Ms Stefanie Naborn
+ 27 51 401 2531
nabornsa.sci@ufs.ac.za

Physical address of the office of the dean

Room 9A, Biology Building, Main Campus, Bloemfontein

Postal address

University of the Free State
PO Box 339
Bloemfontein
South Africa
9300

Fax: + 27 51 401 3728

E-mail: natagri.sci@ufs.ac.za

Faculty website: www.ufs.ac.za/natagri

Preface

From the Dean's Office

In 2008 the Faculty of Natural and Agricultural Sciences once again lived up to its vision to be acknowledged as a faculty that is at the forefront of the practice of natural and agricultural science where the highest levels of quality and credibility are reflected.

During the year the faculty not only remained one of the leaders in training and career development in the natural and agricultural sciences, but it also made a concerted effort to enlarge its international footprint and to establish itself internationally. This is evident in the visits of staff from the faculty to universities such as the USA-based University of Minnesota and Virginia Polytechnic Institute and State University (Virginia Tech) and the extension of international agreements between the University of the Free State (UFS) and these institutions. The faculty also had the privilege of hosting a high-level delegation from the University of Minnesota on the Main Campus in Bloemfontein in August 2008.

The turmoil in the international markets firstly led to very high oil prices, which spilt over to the grain markets and high food prices. This, in turn, led to high inflation levels and therefore high interest rates. Eventually the exchange rate also deteriorated against the major currencies. In the latter part of the year the whole situation was turned upside down with the collapse of the financial markets. The faculty did not escape this and the price of equipment for which orders were placed sky rocketed. Innovative skills had to be applied to remain on track with our equipment strategy.

Although 2008 was an exceptionally difficult year for the UFS and the institution had to bear the brunt of the Reitz video and the reaction of the national and international community, the faculty still managed to perform and expand its core business.

The faculty offers multi-disciplinary and holistic courses to send skilled and capable students into the South African workplace and to empower the labour force. Our general and extended programmes are continuously assessed and improved in order to improve our throughput rates and quality of teaching.

The staff at the faculty worked tirelessly this year to broaden our product offering and to provide our students with the best quality teaching in the country. I applaud their efforts of expanding capacity, developing programmes and strengthening re-



Prof. Herman van Schalkwyk.

lationships both within and outside the faculty and the university.

I also want to applaud the staff and students of the faculty with their achievements this year – whether it is on a personal level, in their capacity as staff member of their respective department/centre or for the faculty. To mention a few:

- Ms Estelle Heideman HIV/Aids coordinator of the Lengau Agricultural Development Centre, received a bursary to participate in a leadership programme in the United States of America (USA), which trains female leaders in South Africa who contribute to the prevention of HIV at a local, regional and national level;
- In the Department of Agricultural Economics, Prof. Johan Willemse, known for his contribution towards agriculture, was appointed on the non-executive board of Absa;

Staff in the dean's office



The staff working in the dean's office are, from the left, front: Ms Stefanie Naborn, Manager: Marketing and Liaison, Ms René Bloem, Secretary, Prof. Neil Heideman, Vice-Dean: Faculty of Natural and Agricultural Sciences; back: Mr Clasia Claassen, Assistant Administrative Officer, Mr Johan Kruger, Faculty Manager, Ms Lorinda Rust, Secretary, and Ms Mitzie Cloete, Typist/Clerical Assistant.

- Prof. James du Preez, Departmental Chair of the Department Microbial, Biochemical and Food Biotechnology, received the silver medal for exceptional published research awarded at the biennial conference of the South African Society for Microbiology hosted in Graham's Town. It was only the seventh time since 1986 that the medal was awarded;
- A study of the UFS about how the change in the packaging of DNA with cellular development is influenced by the expression of genes, in which Prof. Hugh Patterson played a leading role, was published in a leading peer-reviewed scientific journal *Proceeding of the National Academy of Sciences* of the USA (PNAS). The PNAS journal has an impact factor of 10, which means that studies published in this journal

are referred to by ten other scientific studies within the scope of two years;

- Prof. Riaan Luyt, professor in Chemistry and head of the Natural Sciences Programme at the Qwaqwa Campus, received an honorary medal from the Polymer Institute of the Slovak Academy of Sciences during a conference hosted in the High Tatras mountains of Slovakia;
- Prof. Maryke Labuschagne from the Department of Plant Sciences was the recipient of the National Science and Technology Forum's (NSTF) research capacity-development award. A team consisting of Prof. Jan van der Westhuizen and Dr Susan Bonnet from the Department of Chemistry, Prof. Kenneth Swart and Prof. Thinus van der Merwe from FARMOVS-PAREXEL also

received the innovation award for an outstanding contribution to science, engineering and technology by either an individual or a team over the last ten years from the NSTF;

- Prof. Maryke Labuschagne received a second prestigious national award for her research when the 2008 Cereal Science and Technology - SA's (CST-SA) Award for research and development was awarded to her; and
- Prof. Ivan Horak, extraordinary professor at the university's Department of Zoology and Entomology, became the third person in the history of the UFS to receive the D.Sc. degree.

In closing I would like to thank the faculty's lecturing staff for their support and enthusiasm during the past year. However, none of these achievements would have been possible without the interest and hard work of the administrative staff.

During 2008 we have all worked together to live up to the faculty's motto: "There is no substitute for excellence!" This report covers the activities of the faculty in 2008. It is a reflection of a year's commitment from a team of highly skilled academic and support staff.

Prof. Herman van Schalkwyk
Dean: Faculty of Natural and Agricultural Sciences
University of the Free State

Faculty news

Successful visit from delegation of the University of Minnesota

A senior delegation from the University of Minnesota in the United States of America (USA) paid a very successful visit to the University of the Free State (UFS) in May 2008 to explore ways of strengthening already existing ties between the two institutions.

Teacher training, capacity building in health sciences and student preparedness were among the areas of cooperation that were investigated, within the context of the Strategic Academic Cluster initiative of the UFS. Poverty reduction strategies were also a strong focus area.

The Faculty of Natural and Agricultural Sciences has had a cooperation agreement with the University of Minnesota's Department of Applied Economics since 2002 and the exchange of staff



During the visit are, from the left: Prof. Herman van Schalkwyk, Dean: Faculty of Natural and Agricultural Sciences at the UFS, Prof. Robert Jones, Senior Vice-President: System Academic Administration at the University of Minnesota, Dr Meredith Quiad, Associate Vice-President and Dean: International Programmes, University of Minnesota, Prof. Teuns Verschoor, Acting Rector of the UFS and Prof. Ezekiel Moraka, Vice-Rector: Student Affairs at the UFS.

has been taking place on a regular basis. This agreement will be expanded and both institutions are now exploring the possibility of

applying it across faculties. Both institutions have committed seed funding to formalise the cooperation agreement.

50 years of Agriculture celebrated



The faculty celebrated 50 years of the teaching of agriculture at the UFS in November 2008. Part of the celebrations was a seminar with the theme "Challenges in a changing agricultural environment". Some of the guest speakers are, from the left: Mr Corwyn Botha, Chairman: Agri Business Chamber and Managing Director of the Cape Agri Group, Mr Motsepe Matlala, President of NAFU, Mr Hans van der Merwe, Executive Head: Agri SA, Prof. Herman van Schalkwyk: Dean: Faculty of Natural and Agricultural Sciences at the UFS, and Mr Sugar Ramakarane, Head: Department of Agriculture, Free State Province.

Winners of NSTF awards assist with recruitment of students



Here are, from the left: Dr Martin Ntwaeaborwa, senior lecturer at the Department of Physics and finalist in the category for black researchers, Prof. Kenneth Swart, FARMOVS-PAREXEL, Prof. Maryke Labuschagne, head of Plant Breeding at the UFS's Department of Plant Sciences and female recipient of the award for the development of research capacity over the past five to ten years, and Prof. Jan van der Westhuizen, Department of Chemistry at the UFS; front: Ms Kedibone Aphane, MRC. Prof. Swart and Prof. Van der Westhuizen were the leaders of the team who received the award for the development of innovation by a corporate organisation or institution.

Representatives of the South African Medical Research Council (MRC) visited the UFS to recruit students who want to study in the fields of sci-

ence, engineering and technology. To assist with the recruitment, the winners of awards made by the National Science and Technology Forum (NSTF) earlier this year,

made presentations to create an interest amongst students. The UFS had four finalists of whom two were the winners in their respective categories.

Young scientists learn what faculty can offer



Young science lovers gathered in Sasolburg for the annual Sasol TechnoX in August 2008. The faculty's exhibition captured the learners' attention through an interactive representation of the application fields of science. Delegates from the Departments of Mathematics and Applied Mathematics, Chemistry, Zoology and Entomology, as well as UFS Marketing stood ready to answer the questions of the 20 832 learners who attended the event. Pictured here is Theo Viljoen, M.Sc. student in Forensic Entomology, sharing interesting facts regarding insects with learners.

Two UFS academics appointed on the Land Bank Board



Prof. Herman van Schalkwyk (left), Dean: Faculty of Natural and Agricultural Sciences, and Mr Theo Potgieter from the UFS School of Management were appointed on the Land Bank Board in March 2008. Prof. van Schalkwyk was appointed as Director and Deputy Chairperson and Mr Potgieter as Director of the Board. The appointments were made by the Minister of Agriculture and Land Affairs, Ms Lulu Xingwana, and are effective for a period of four years.

UFS extends exchange agreement with USA university



Here are, from the left, front: Dr SK de Datta, Vice-Rector: International Affairs, VT, Prof. Herman van Schalkwyk, Dean of the Faculty of Natural and Agricultural Sciences, UFS, Dr Martin Ntwaeaborwa, senior lecturer at the Department of Physics, UFS; back: Prof. Jim McKenna, Department of Crop, Soil and Environmental Affairs, VT, Prof. Izak Groenewald, Director of the Centre for Sustainable Agriculture and Rural Development at the UFS and responsible for the faculty's international liaison, Dr Michael Bertelsen, VT's international office, Dr Aldo Stroebel, Head: Internationalisation at the UFS and Dr Liesel Herselman, senior lecturer at the Department of Plant Sciences, UFS.

A delegation from the faculty visited the Virginia Tech University (VT) in the USA in June 2008 to confirm and extend the existing student exchange agreements between the two institutions.

During the visit the agreement, which started in 1997, was extended for the next five years. More than 150 students from both institutions have already taken part in this exchange agreement and it is the most successful student exchange agreement that VT is involved in. Although agricultural students from the UFS initially took part in the agreement, it was extended to other departments in the faculty and also to the rest of the UFS.

Itjoriseng Project launched



The faculty launched the Itjoriseng Project on the Main Campus in Bloemfontein in March 2008. The aim of the project is to improve the skills of teachers in the subjects Mathematics and Physical Science for Grades 10–12. "Itjoriseng" is the Sotho word for "sharpen yourself". At the launch were, from the left: Mr Mzamo Jacobs, Director: Curriculum Development for Further Education and Training, Free State Department of Education, Mr Johan Kruger, Faculty Manager, Ms Elna Marais, Chief Education Specialist: Curriculum Development, Free State Department of Education, and Prof. Herman van Schalkwyk, Dean: Faculty of Natural and Agricultural Sciences at the UFS.

2007 Faculty report launched



The faculty once again produced another report in which the various departments and centres highlighted their activities for 2007. The report was so well received that a second edition had to be printed. Here are some of the departmental chairpersons during the launch of the report in June 2008.

Disaster Management Training and Education Centre for Africa (DiMTEC)

“Memoranda of understanding have been agreed upon with a university in Serbia and the United Nations University” - Mr Andries Jordaan.



Mr Andries Jordaan.

Overview

2008 was a year packed with new projects and developments for the Disaster Management Training and Education Centre for Africa (DiMTEC). Student numbers reached a record of 122 for 2008 (including first- and second-year students) and, for the first time, 54 students enrolled for the Higher University Diploma in Disaster Management. The popularity of the master's degree programme in Disaster Management has also grown rapidly over the past few years.

Because of its multi-disciplinary focus and the relevance of the course in the developing African environment, it is expected that the

interest in the master's programme will remain high. DiMTEC is possibly the graduate course at the University of the Free State (UFS) with the largest footprint in Africa, with students from Sudan, Nigeria, Kenya, Democratic Republic of the Congo, Zambia, Mozambique, Swaziland, Lesotho, Namibia, and Zimbabwe. Two students from Israel and Palestine also enrolled for the course during 2008. These students represent their countries, the United Nations and several non-governmental organisations (NGO) such as OXFAM, Save the Children, International Red Cross and Red Crescent Movements, CARE International, Food and Agricultural Organisation (FAO), etc.

Mr Andries Jordaan, Director of DiMTEC, visited the United Nations University (UNU) and Novi Sad University in Serbia during November 2008. The UNU, with its Rector in Tokyo, Japan and its Faculty of Environmental and Human Security in Bonn, Germany, is an international university with campuses all around the world. The Vice-Rector and Dean of the Faculty of Environmental and Human Security, Prof. Janos Bogardi and Mr Jordaan agreed on cooperation on several issues and a memorandum of understanding (MOU) is currently prepared for finalisation during 2009. This MOU will facilitate the exchange of lecturers and students and ensure the international profile of DiMTEC.

The Novi Sad University has more than 40 000 students with more than 10 000 students in the Faculty of Engineering alone. DiMTEC has entered into an MOU with this university in order to exchange lecturers and students. Mr Jordaan, together with the Novi Sad University's Department of Environmental Engineering, also identified certain areas of cooperation. An MOU is being prepared to be approved by the relevant authorities at both universities. During his visit to Serbia Mr Jordaan presented a guest lecture on the relation between conflicts and disasters at the University of Belgrade.

The centre presented the first Annual Conference in Disaster Risk Reduction, with the focus on Risk Reduction in Africa. The

aim of the conference was to give scientists and graduates the opportunity to share experiences, academic research, best practices and lessons learned with fellow disaster risk reduction practitioners. The conference also served as an opportunity to link with key individuals and organisations with an interest in Disaster Risk Reduction in Africa. The guest speaker was Prof. Dusan Sakulski of the United Nations University.

As part of the conference a unique demonstration was simulated on the steps to take during a disaster response. This took place on the Main Campus of the University of the Free State (UFS) in Bloemfontein, and a full-scale operation was executed with the cooperation of the South African Defence Force, South African Police Service, local hospitals and other response organisations.

DiMTEC received new funding of nearly R6 million from the Department of Science and Technology (DST) and the Department of Water Affairs and Forestry (DWAF) for a bursary programme that enables students to gain experience in disaster management in different government departments, while completing their master's degree studies in Disaster Management. Students were placed at various disaster management centres with great success. Ms Merle Naidoo has been appointed as the project manager from 2009. The induction training for the full-time



Speakers at the first Annual Conference in Disaster Risk Reduction are, from the left: Mr MacDonald Kadzatsa, DiMTEC student from OXFAM, Namibia, Mr Mzimane Khoza, DiMTEC student from the National Disaster Management Centre, Prof. Dusan Sakulski, UNU representative, Ms Sibisiswe Ndlovu, DiMTEC student from the Department of Civil Protection, Zimbabwe, Mr Andries Jordaan, Director: DiMTEC, and Mr Dan Pillay, project manager at the CSIR.

students will also be hosted on campus during 2009.

In 2008 the Council for Scientific and Industrial Research (CSIR), DST, DWAF and Department of Provincial and Local Government together with other stakeholders have invested in a bursary learner-ship programme. The programme caters for postgraduate students in Disaster Management and Early Warning Systems. It comprises full time students who will be placed in different organisations to gain practical experience and provide voluntary service. Part-time students will be assisted financially. Four students have been placed

at National Disaster Management Centres. These students will be rotated to other organisations after a period of three months from the time of placement. Five students are full-time and two students are part-time. The five full-time students are first-years and the two part-time students are second-years.

DiMTEC identified the need for students to know more about Africa, especially regarding what the NGOs like USAid, Red Cross, Oxfam, UNICEF and the World Food Programme do for communities during and after a disaster. A tour to Mozambique took place during April 2009 and 13 students and staff were amongst the group. The group met with NGOs and stayed in an Internally Displaced Persons camp about 20 km south of the Malawi border.

Another educational tour was undertaken to Cape Town during October 2008. This included the attendance of the Annual Disaster Management Conference hosted by the Disaster Management Institute of Southern Africa (DMISA). Some of the activities on the tour included seeing the flood lines in Laingsburg in the Western Cape and the extent of damage that can be caused should a flash flood occur, gathering insight on the work and organisational struc-



A demonstration of putting out a veld fire was held as part of the first Annual Conference in Disaster Risk Reduction.



Attendees discussing the content of the handbook of the Sphere Project and Minimum Standards in Disaster Response course.

Staff

Director: Mr Andries Jordaan

External Lecturers: Profs Dusan Sakulski, André Duvenhage, Messrs Schalk Carstens, Anthony Keston

Office Administrator: Ms Annelene Schröder-Groenewald

Financial Administrator: Ms Gerdamarie van Copenhagen

Coordinator: Masters Degree Course: Ms Olivia Kunguma

Coordinator: Short Courses: Ms Alice Ncube

Project Manager: DST Bursary Students: Ms Merle Naidoo

Project Coordinators and Researchers: Messrs Derrick Sissons, Regardt Ferreira

Contact details

Mr Andries Jordaan

Faculty of Natural and Agricultural Sciences
Disaster Management Training and
Education Centre for Africa (DiMTEC)
University of the Free State
PO Box 339
Bloemfontein
South Africa
9300

Telephone: +27 51 401 2721

Fax: +27 51 401 9336

E-mail: dimtec.sci@ufs.ac.za

Website: www.ufs.ac.za/dimtec

ture of the Provincial Disaster Management Centre (PDMS) and witnessing the operations in the xenophobia camps as well as the daily problems faced in the Western Cape.

Practical work for first-years and practical exams for final-year students were implemented during 2008. Through these practical sessions students were exposed to realities and were given the opportunity to apply their theoretical knowledge. The first-year students were sent to a rural area in Bloemfontein where they had to do Community Resilience Profiling, while the second-year students did a practical examination on xenophobic attacks in South Africa. They had to do risk assessments and compile contingency plans in response to such attacks.

DiMTEC moved into new offices towards the end of 2008. These premises consist of private offices, a storeroom and a computer laboratory. The computer laboratory will be used as an Early Warning Data Capturing Centre, where data on disasters in South Africa will be captured, analysed and evaluated. This information will be sent to the government and private sector to use as a warning of disasters.

Staff of DiMTEC presented short courses on various aspects of Disaster Management to government departments, non-governmental and private organisations in the Southern African Development Community (SADC) region. During 2008 the Sphere Project and Minimum Standards in Disaster Response course was presented at the UFS, East London and Queenstown and the Introduction to Disaster Management course was presented in Aliwal North, Welkom and at the UFS.

Staff also attended various conferences such as the first Annual Conference in Disaster Risk Reduction (presented by DiMTEC in Bloemfontein), the 42nd Annual

Conference of the South African Society for Agricultural Extension Officers in Port Elizabeth and the DMISA's Annual Conference in Goudini, Western Cape.

Projects completed included:

- A contingency plan for the UFS.
- Agricultural Impact Assessment for building a power station in the Deneysville, Sasolburg region.
- Business Plan on Pecan Nuts for Farmers in the Muden District, KwaZulu-Natal.
- International evaluation of re-settlement plan for the Merowe Dam Project, Sudan.
- Richtersveld Land Claim and Agricultural Development Plan.
- ESKOM/Ninham Shand Environmental Impact Studies.

Current projects include:

- A data validation study for the Elundini stock improvement programme.

Staff of DiMTEC are well represented in provincial and national bodies such as the South African Qualifications Authority's (SAQA) Scoping Committee for Disaster Management Training in South Africa, the National Disaster Management Technical Advisory committee for Disaster Risk Assessments, the Free State Disaster Management Advisory Forum and the Regional Consultative Forum for Africa of the International Council for Science (ICSU). ■

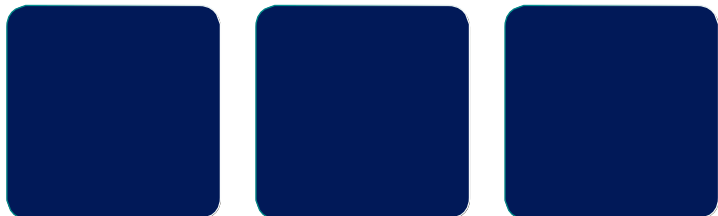
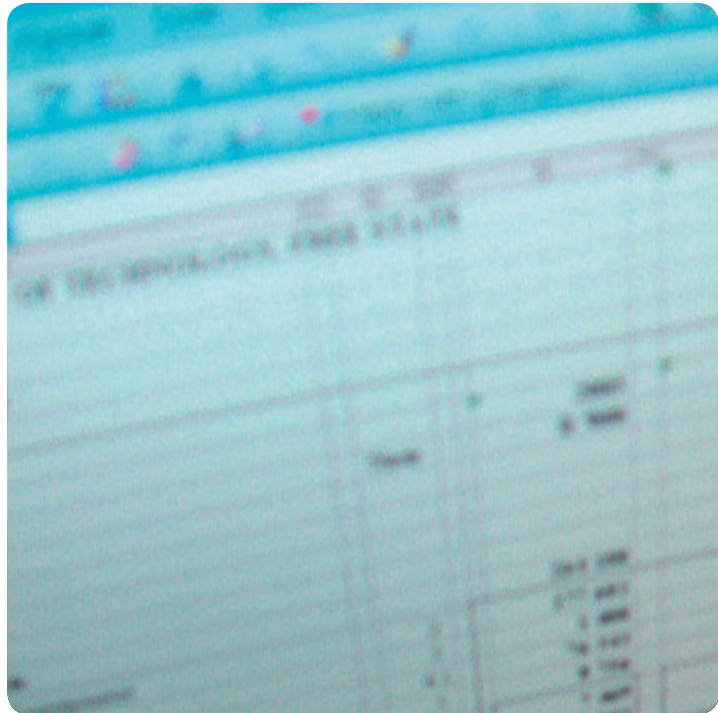
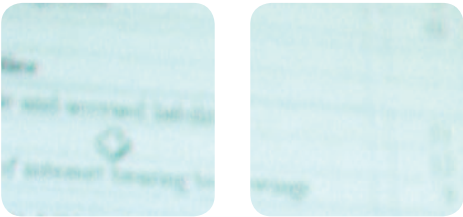
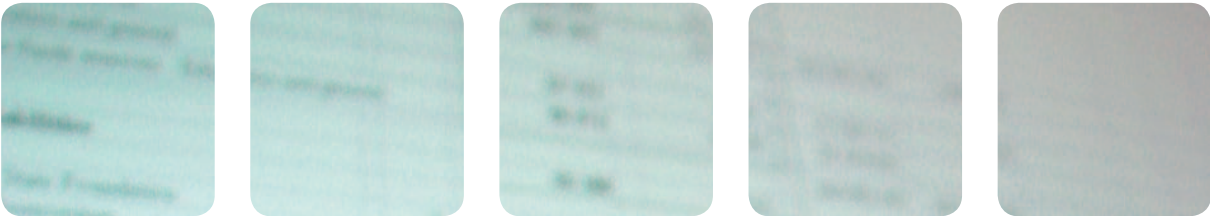
Research outputs

Conference contributions

Jordaan, A.J. 2008. *Agricultural development and training in the Richtersveld: A community perspective*. Paper delivered at the 42nd Annual Conference of the South Africa Society for Agricultural Extension, Tsitsikamma Conference Centre, Port Elizabeth, South Africa. 5-8 May.



Statistical data

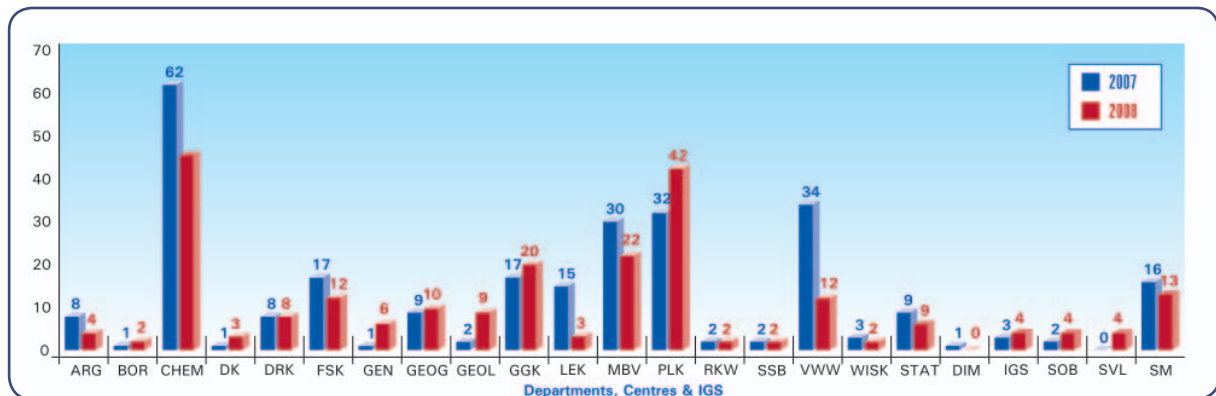


Research outputs: 2007-2008

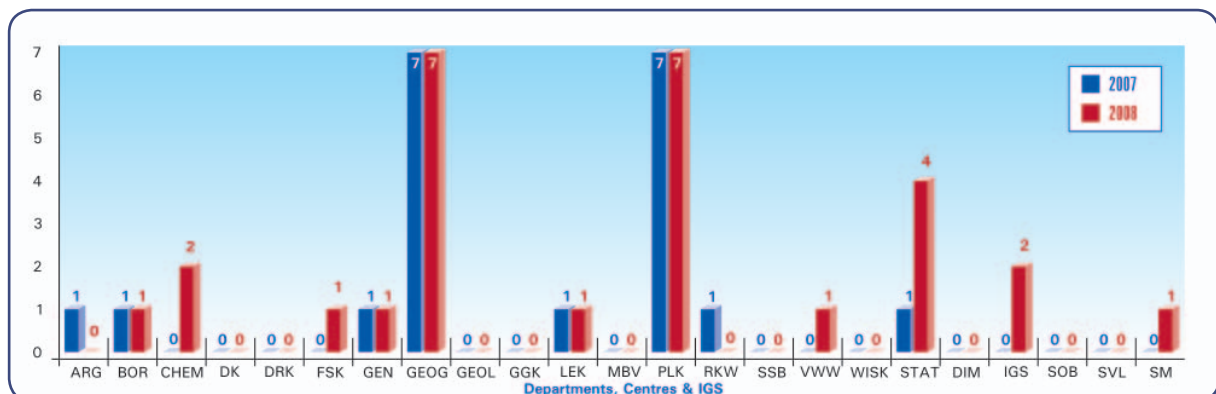
List of abbreviations

Abbreviation	Name	Abbreviation	Name
ARG	Department of Architecture	GGK	Department of Soil, Crop and Climate Sciences
BOR	Department of Quantity Surveying and Construction Management	IGS	Institute for Groundwater Studies
SOB	Centre for Environmental Management	LEK	Department of Agricultural Economics
CEM	Department of Chemistry	MBV	Department of Microbial, Biochemical and Food Biotechnology
SM	Centre for Microscopy	PLK	Department of Plant Sciences
SVL	Centre for Sustainable Agriculture and Rural Development	RKW	Department of Computer Science and Informatics
DK	Dean's Office	SSB	Department of Urban and Regional Planning
DRK	Department of Zoology and Entomology	SRB	Disaster Management Training and Education Centre for Africa (DIMTEC)
FSK	Department of Physics	VWW	Department of Animal, Wildlife and Grassland Sciences
GEN	Department of Genetics	STAT	Department of Mathematical Statistics and Actuarial Science
GEOG	Department of Geography	WISK	Department of Mathematics and Applied Mathematics
GEOL	Department of Geology		

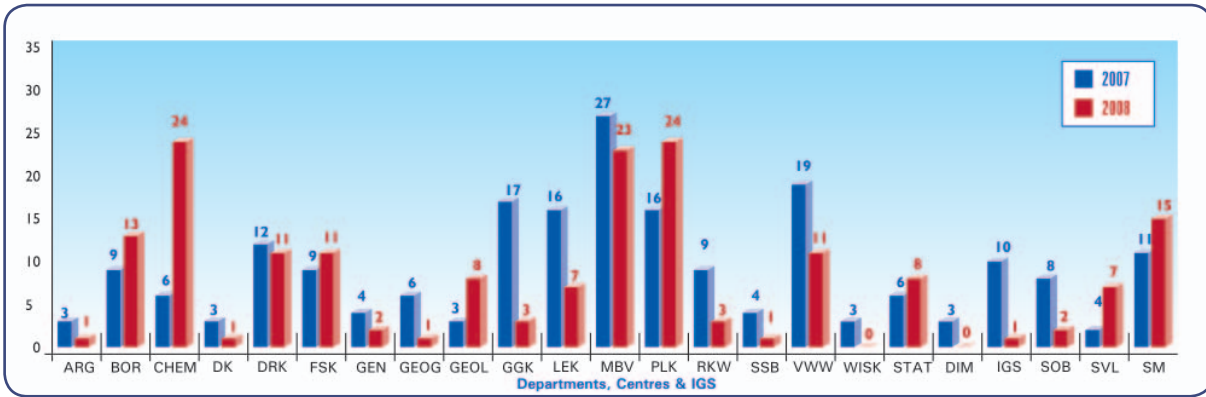
Accredited articles



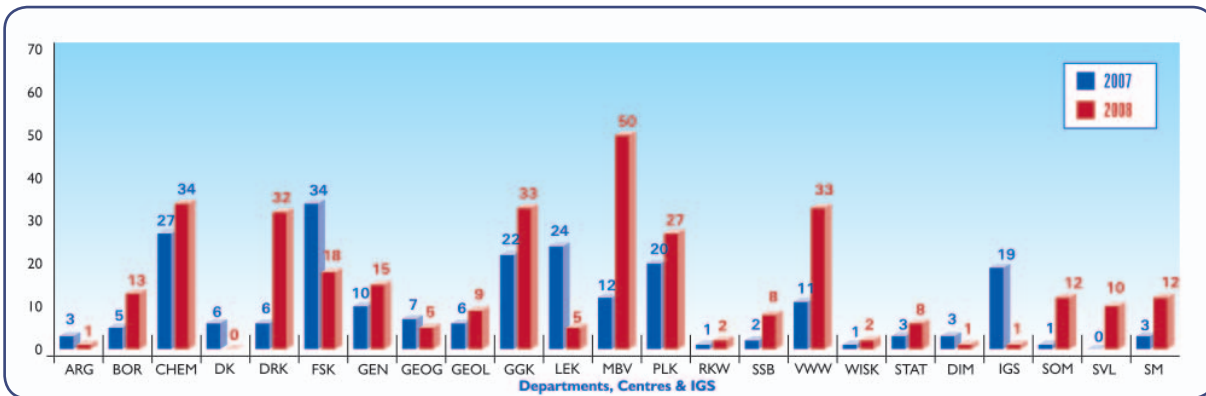
Books



International conferences



Local conferences



Student figures: 2007-2008

Student figures

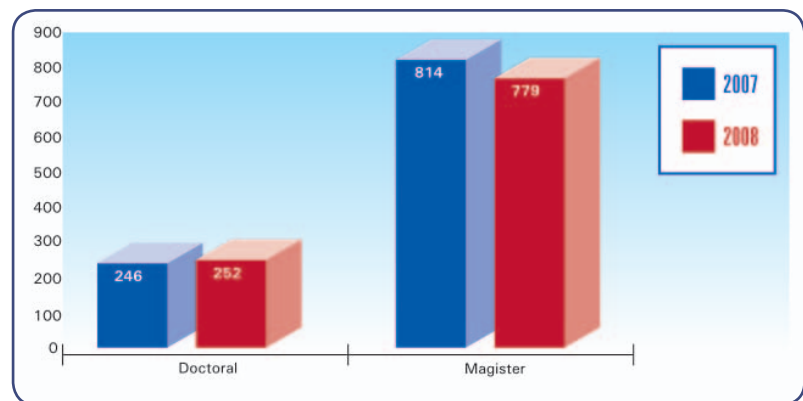
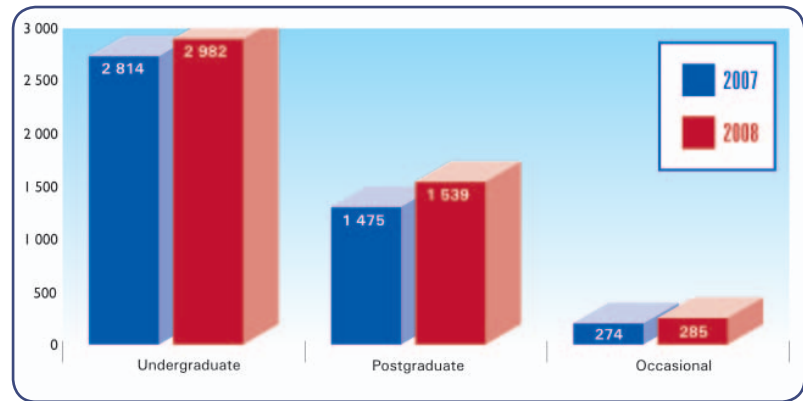
Year	Description	Black	Coloured	Asian	White	Total
2007	Undergraduate	1492	66	38	1218	2814
	Postgraduate	710	41	40	684	1475
	Occasional	230	6	2	36	274
*TOTAL		2432	113	80	1938	4563
2008	Undergraduate	1667	51	37	1227	2982
	Postgraduate	755	40	43	701	1539
	Occasional	260	5	1	19	285
* TOTAL		2682	96	81	1947	4806

International students

Nationality	Year	Year
	2007	*2008
Angola	2	0
Asian countries	20	24
Botswana	17	23
Democratic Republic of the Congo	0	1
European countries	9	10
Lesotho	118	144
Malawi	3	5
Mauritius	2	3
Mozambique	4	7
Namibia	54	65
North America	15	5
Other African countries	47	69
South America	1	0
Swaziland	5	6
Zambia	7	7
Zimbabwe	48	60
Total	352	429

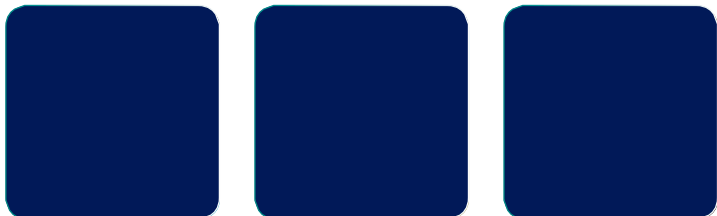
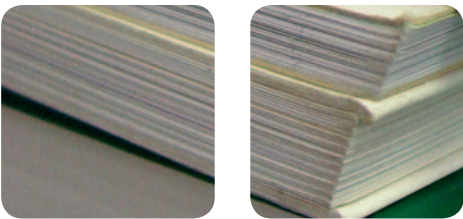
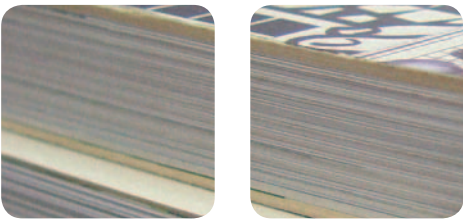
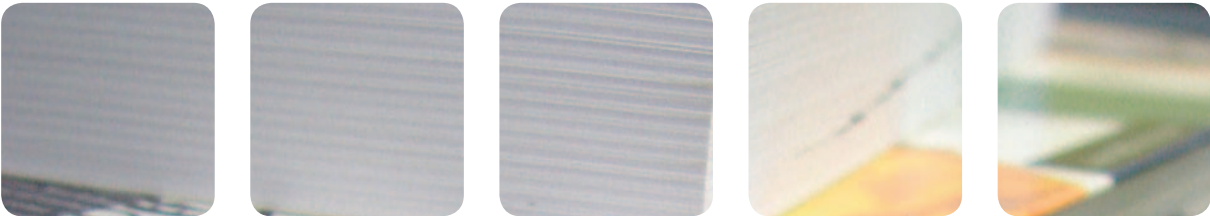
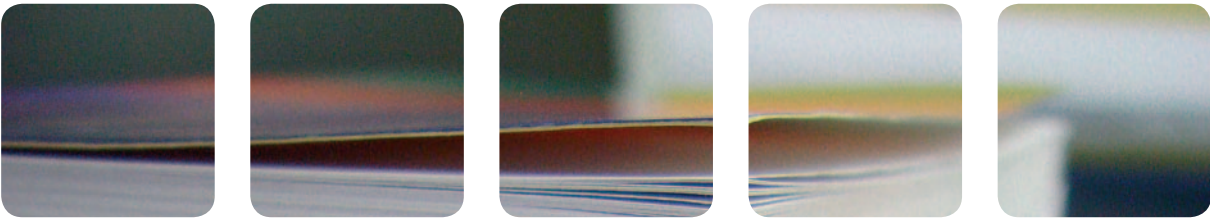
*2008 Final HEMIS figures not available

Comparison for the Faculty of Natural and Agricultural Sciences





Glossary



Glossary

A

AACC -	American Association for Cereal Chemists
AACE -	Association for the Advancement of Cost Engineering
ADF -	Amsterdam Density Functional Programme
ADG -	Average Daily Grain
AEASA -	Agricultural Economics Association of South Africa
AEON -	the African Earth Observation Network
AGU -	American Geophysical Union
AI -	Artificial Insemination
ARC -	Agricultural Research Council
ARV -	Antiretroviral
ASC -	Architecture Student Conference
ASAQS -	Association of South African Quantity Surveyors
ASOCSA -	Association of Schools of Construction of Southern Africa

B

BBSRC -	Biotechnology and Biological Sciences Research Council
BMBF -	Federal Ministry of Education and Research, Germany

C

CAA -	Commonwealth Association of Architects
CANSA -	Cancer Association of South Africa
CAB -	Centro de Astrobiología
CED -	Centre for Education Development
CePHMa -	Centre for Plant Health Management
CHESD -	Centre for Higher Education Studies and Development
CHPC -	Centre for High Performance Computing
CIDB -	Construction Industry Development Board
CIOB-SA -	Chartered Institute of Building, South Africa
CSIR -	Council for Scientific and Industrial Research Organisation
CSTA -	Cereal Science and Technology Association
CUT -	Central University of Technology

D

DiMTEC -	Disaster Management Training and Education Centre for Africa
DMISA -	Disaster Management Institute of Southern Africa
DRRW -	Durable Rust Resistance in Wheat
DST -	Department of Science and Technology
DWAF -	Department of Water Affairs and Forestry

E

ECA -	European Crystallographic Association
EGIC -	Economic Growth and International Competitiveness
EMSA -	Environmental Management Systems Association
EMS -	Environmental Management Systems
EPWP -	Expanded Public Works Programme

F

FAO -	Food and Agricultural Organisation
FETWater -	Framework Programme for Research Education and Training in Water
FMP -	Facilities Management Programme
FSRDPP -	Free State Rural Development Partnership Project
FTIR -	Fourier Transform Infra Red Spectrometer

G

FGAP -	Facility for Genomics and Proteomics
GIS -	Geographical Information Systems
GMO -	Genetically Modified Organisms
GRDM -	Groundwater Resource Directed Measures
GSSA -	Grassland Science Society of South Africa
GSSA -	Geological Society of South Africa

H

HCI -	Human-computer Interaction
HRTEM -	High Resolution Transmission Electron Microscopy

I

IAMA -	International Food and Agribusiness Management Association
IAU -	International Astronomical Union
ICACS -	International Conference on Atomic Collisions in Solids
ICCC -	International Conference on Coordination Chemistry
ICEC -	International Cost Engineering Council
ICRISAT -	International Crops Research Institute for the Semi-Arid Tropics
ICSU -	International Council for Science
IDC -	Industrial Development Corporation
IGC -	International Geological Congress
IGS -	Institute for Groundwater Studies
IMWA -	International Mine Water Association
INCRoP -	Insects on New Crops Programme
IPMP -	Intensive Project Management Programme
ISI -	International Statistical Institute
ISME -	International Society for Microbial Ecology
IT -	Information Technology
IUMS -	International Union of Microbiological Societies

L

LPI -	Lunar and Planetary Institute
LRAD -	Land Redistribution for Agricultural Development

M

MCEE -	Minnesota Council on Economic Education
MDC -	Maputo Development Corridor
MEC -	Member of the Executive Council
MNS -	Material and Nanosciences Cluster
MOU -	Memorandum of Understanding
MRC -	Medical Research Council
MSA -	Masters in Sustainable Agriculture
MSSA -	Microscopy Society of Southern Africa
MUCPP -	Mangaung University Community Partnership Programme

N

NAMC - National Agricultural Marketing Council
 NASA - National Aeronautics and Space Administration
 NASSP - National Astrophysics and Space Science Programme
 NBN - National Bioinformatics Network
 NCEE - National Council for Economic Education
 NDF - Neutral Detergent Fibre
 NECSA - Nuclear Energy Corporation of South Africa
 NERPO - National Emergent Red Meat Producers Organisation
 NGO - Non-Governmental Organisation
 NRF - National Research Foundation
 NSTF - National Science and Technology Forum
 NWGA - National Wool Growers' Association

O

OECD - Organisation for Economic Cooperation and Development

P

PAQS - Pacific Association of Quantity Surveyors
 PDMS - Provincial Disaster Management Centre
 PRT - Protein Research Trust

R

RDP - Redress and Development Programme
 RIBA - Royal Institute of British Architects
 RICS - Royal Institute of Chartered Surveyors
 RIEP - Research Institute of Education Planning
 RMMA - Red Meat Abattoirs Association
 RPO - Red Meat Producers Organisation
 RTPI - Royal Town Planning Institute

S

SA - South Africa
 SAAPMB - South African Association of Physicists in Medicine and Biology
 SAB - South African Breweries Limited

SABC - South African Broadcasting Corporation
 SACAP - South African Council for the Architectural Professions
 SACPCMP - South African Council for the Property Valuers Profession
 SACPLAN - South African Council of Planners
 SACQSP - South African Council for the Quantity Surveying Profession
 SADC - Southern African Development Community
 SAFA - South African Feedlot Association
 SAFEFE - South African Foundation for Economic and Financial Education
 SAFOI - South African Fryer Oil Initiative
 SAIA - South African Institute of Architects
 SAIM - Society for Industrial and Applied Mathematics
 SAISC - Southern African Institute of Steel Construction
 SANBI - South African National Biodiversity Institute
 SANCID - South African Commission on Irrigation and Drainage
 SANPAD - South African Netherlands Research Programme on Alternatives in Development
 SANSA - South African National Survey of Arachnida
 SAPOA - South African Property Owners Association
 SAPPS - Symposium of the South African Pecan Producers Association
 SAQA - South African Qualifications Authority
 SASA - South African Statistical Association
 SASHS - Southern African Society for Horticultural Sciences
 SASM - South African Society for Microbiology
 SAWMA - South African Wildlife Management Association
 SAWSS - Southern African Weed Science Society
 SCM - Scientific Computing and Modeling
 SEG - Society of Economic Geologists
 SEM - Scanning Electron Microscope

SLE - Senior Lecturer Equivalent
 SSSSA - Soil Science Society of South Africa
 SWMA - Southern African Wildlife Management Association

T

TEM - Transmission Electron Microscope
 THRIP - Technology and Human Resource for Industry Programme

U

UCT - University of Cape Town
 UEC - Unit for Earth Construction
 UFS - University of the Free State
 UJ - University of Johannesburg
 UK - United Kingdom
 UN - United Nations
 UNESCO - United Nations Educational, Scientific and Cultural Organisation
 UNU - United Nations University
 UP - University of Pretoria
 USA - United States of America
 USAID - United States Agency for International Development
 UWC - University of the Western Cape

W

WCAP - World Conference on Animal Production
 WITS - University of the Witwatersrand
 WRC - Water Research Commission

