



DIVERSITY IN THE FACULTY OF AGRISCIENCES: STUDENTS PERSPECTIVES

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Background


- **Agriculture and forestry:** providing safe foods and fibre of adequate quality
- **Agrisciences:**
 - **3-3.5%** of the gross domestic product,
 - earn **foreign exchange**,
 - **poverty** relief,
 - **8%** of formal employment
- **Lack of skilled workers** and the level of these skills in critical sectors in agriculture in South Africa
- Further linked to a perception of **lack of financial incentives** in agriculture



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ERADICATING
POVERTY
AND RELATED
CONDITIONS

PROMOTING
HUMAN DIGNITY
AND HEALTH

PROMOTING
PEACE
AND SECURITY

PROMOTING
DEMOCRACY AND
HUMAN RIGHTS

PROMOTING
A SUSTAINABLE
ENVIRONMENT
AND A COMPETITIVE
INDUSTRY

HIV/AIDS
PREVENTION

Stellenbosch University Food Security Initiative



Standard Bank Centre for Agribusiness Leadership and Mentorship Development



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Millenium Development Goals



Goal 1:
Eradicate Extreme
Hunger and Poverty



Goal 5:
Improve Maternal Health



Goal 2:
Achieve Universal
Primary Education



Goal 6:
Combat HIV/AIDS, Malaria and
other diseases



Goal 3:
Promote Gender
Equality and Empower
Women



Goal 7:
Ensure Environmental
Sustainability



Goal 4:
Reduce Child Mortality



Goal 8:
Develop a Global Partnership for
Development



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Diversity in Higher Education



- Competitive advantage:
In a diverse academic environment different perspectives need to [be] considered and incorporated, assumptions are challenged, thinking becomes more complex, and people skills are developed
- Diversity should be part of all our core activities
- **Key to success:** needs to be driven by senior management at higher institutions and accepted by everyone else



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Background to study



- **Critical professionalism team** – critical assessment of teaching and BSc (natural sciences) students
- **Marketing and strategic plan** for AgriSciences (MBA thesis)



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AGRISCIENCES: THE REALITY UNDERGRADUATE



	2005	2006	2007	2008	2009
Coloured	65	72	80	98	88
Black	51	58	67	82	74
Indian	3	4	4	4	6
White	887	965	977	903	831
Total number of undergraduate students	1006	1099	1128	1087	999 (6%)

http://sun025.sun.ac.za/portal/page/portal/Administrative_Divisions/INB/Tuisblad/Feiteboek/2008/FB%202008%20Afd%201.pdf



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THE US / AGRI REALITY UNDERGRADUATE



	2009 (All Agric students)	US students	Application for 2010	Agri: 1st choice
Coloured	88	46	27	8
Black	74	62	12	7
Indian	6	5	1	0
White	831	619	365	168
Total number of undergraduate students	999	732	405	183

- **18% total non-white students in faculty**
- **Increase to 24% (2015) *Institutional: 33.73%***



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AGRISCIENCES: THE REALITY

POSTGRADUATE



	2005	2006	2007	2008	2009	2010
Coloured	8	12	12	11	18	18
Black	68	71	85	95	90	96
Indian	2	0	1	1	4	4
White	191	194	209	220	234	278
Total number of porstgraduate students	269	277	307	327	346	396

- **36% total non-white students in faculty (mostly students from rest of Africa)**
- **Increase to 38% (2015) *Institutional 54.71%***



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RESEARCH QUESTIONS

- What are learners' **understandings / perceptions** of AgriSciences?
- How do we **attract** more students (undergraduate and postgraduate) to the faculty?
- How do we attract more **good quality non-white** students to the faculty?
- How do we make the discipline more **attractive**?
- What **marketing strategies** can we use to attract more students to the faculty?



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AIM



Increase student numbers in
general and student diversity in
terms of race in the Faculty of
AgriSciences



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RESEARCH METHODOLOGY

- Fixed research design

- Prospective students

- Questionnaires distributed at schools

- Undergraduate and postgraduate students

- PHASE 1: Questionnaires – open-ended questions (sent via e-mail;

- PHASE 2: WebCT based questionnaires – closed-ended questionnaires

Feedback from at least 5% (1%) sufficient

- Internal and external analysis of the faculty

- Structured interviews with role players



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Research methodology: Prospective students



- **Limited due to financial and time constraints**
- **Two opportunities:**
 - ***Molecular Biology is fun Schools Open day***
 - Schools from Western Cape
 - Included 5 schools in Western Cape (Grades 11 and 12)
 - Learners selected based on academic record (Maths and Science) and interest in studying science
 - ***Winter Week (Natural Sciences)***
 - Learners interested in studying science
 - 76 students from 37 schools



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Current distribution of undergrad students in AgriSciences



	Gauteng	NC	WC	KZN	Mpumalanga / Limpopo	EC	Bloem	Other
Coloured	4	10	93	1	-	1	-	2
Black	10	2	11	19	16	6	6	17
Indian	-	-	1	1	-	1	-	-
White	65	33	613	41	32	76	12	28
Total number of postgraduate students	79	45	718	62	48	84	18	47



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Current distribution of postgrad students in AgriSciences



	Gauteng	NC	WC	KZN	Mpumalanga	EC	Bloem	Other
Coloured	1	1	10	-	-	-	-	6
Black	2	-	-	2	1	2	1	88
Indian	-	-	1	-	-	-	-	3
White	18	10	150	8	10	13	1	68
Total number of porstgraduate students	21	11	161	10	11	15	2	165



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The Questionnaire



- Explain what your **understanding of AgriSciences** is / Are you considering a career in AgriSciences? / How did you become aware of it?

- **Familiarity with disciplines** / when and where did you become aware of it?

- Where **are you heading** to?



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Outcomes: Prospective students

What is your understanding of AgriSciences?

School	# learners	No idea	Some to good idea
Norman Henshilwood	16 •14 Coloured; 2 Indian	11 (4)	5 (3)
President High School	14 •11 White; 3 Coloured	11 (5)	3 (3)
Huguenot High School	15 •10 White; 3 Coloured; 2 Black	15 (3)	-
De Kuilen High	4 •3 White; 1 Coloured	1 (0)	3 (2)
Bishop Lavis High	9 •9 Coloured	9 (0)	-
La Rochelle	13 3 Coloured; 10 White	-	13 (3)
Total	71	47(66%)	24 (34%)
		12 (26%)	11 (46%)



Winter Week 2010



- Limitation: Predominantly White group
- 4 Not used for analysis
- 5 of 8 (62%) Coloured students show interest
- 40% of learners show interest in AgriSciences

School	# learners	No idea	Some to good idea
37 Schools	76 •8 Coloured; 68 White	22 (4)	50 (25)
Total	72	31% (18%)	69% (50%)



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Are you considering a career in AgriSciences?



- **If not considering:**
 - “AgriSciences do not contribute to new ideas”
 - “AgriSciences do not contribute to successful (financial) career”
 - “not interested”
 - “I want a career that is exciting”
 - “I do not have a farm” / “NO I’m not a farmer”
 - White male dominated environment



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Are you considering a career in AgriSciences?



- **Considering**
 - Interesting
 - Learners have a good understanding of what it entails
- Like animals and plants / nature
- Many job opportunities
- Conserve the environment
- Grew up on a farm



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Familiarity with disciplines



- Those who were interested had some idea of disciplines
- **“What the ... is Agronomy????!!!!????”**



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Where and when did you become aware of it?



- School (**90%** of students who knows what AgriSciences is)
- Current students
- US Open Day
- Family members
- Newspapers / magazines (Landbou weekblad)
- Internet
- Psychometric tests
- Science week



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In summary



- Interest do exist to study AgriSciences
- Target should be school teachers
- Communicate in a language that is understood by community
- Afrikaans not barrier for English speaking students
- Complexity vs Simplicity
 - Similar results previous studies (Centre for Prospective students)



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Research methodology: Undergraduate students



- Open-ended questionnaire sent *via* e-mail to all Coloured, Indian and Black students
- Follow-up interviews: selected group of students



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AgriSciences vs Natural Sciences



- **AgriSciences**
 - Support from Faculty
 - White male dominated environment
- **Natural Sciences**
 - No clear indication of support

AgriSciences	Natural Sciences
School support; Family	Family support; school support; Individual
Satisfied with choice (passionate)	Not sure of choice
Definite goal throughout	Definite goal (1 st year); no idea but successful
Financial assistance	Financial assistance



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Recommendations



- **US first choice for 71% (102 of 143)**
 - Closer to home
 - Good reputation
 - Advised by school teacher
- **Who does marketing?**
 - Passion for discipline
- **Peers**
- **Align with current marketing strategies**
 - Assess current marketing strategies in Faculty and departments



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- **Prospective student:**

“Ek hou nie van plante en gaan nie heel dag met stink koeie werk nie”

“Is dit iets wat mens kan swot?”

- **Undergraduate student:**

“And who is going to give you a farm?”



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“The willingness to dialogue, listen, learn must become part of university’s ethos...” (Steyn 2006)

THANK YOU



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