

Skilled people: The lifeblood of the agro-food system

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Introduction

- National Development Plan argues that agriculture can play an important role in achieving the goals of the NDP.
- Agriculture is critical for rural economies and often the only source of economic output
- Driving force for growth in agriculture – expansion of irrigation, unutilised arable land
- Agriculture has the potential to create 1 million jobs
- But... we need good support services including a world class agricultural research system to grow the industry
-and we need top class and competitive agribusinesses

Challenges and context

- By 2050 more than 75% of SA's population will be urbanised and will need affordable, healthy and safe food.
- SA agriculture needs innovation and coordinated policy and support programmes.
- Productivity growth and competitiveness of South African agriculture is compromised by uncertainty, poor support and little attention to detail of support programmes and policies and very little focus on development of talent
- Agricultural system and various industries are under threat due to the lack of industry leaders, researchers and agricultural experts

Gwede Mantashe on Food Security into the Future, *ANC Today* 14(8)

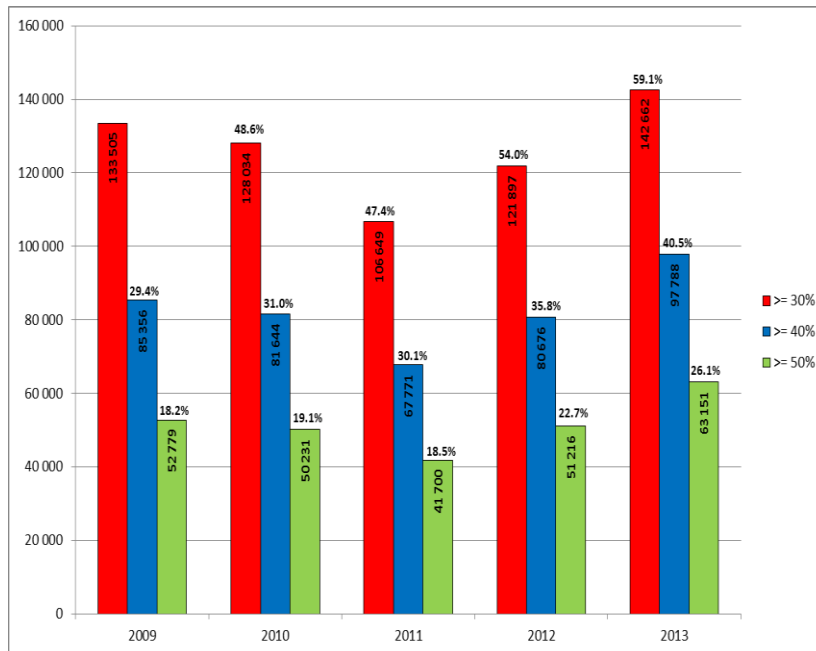
- “Skills development and mentorship is greatly required at this level. We should quantify the number of graduates who are in the various disciplines of agriculture in different institutions of higher learning...
- DAFF must have more agricultural professionals than administrative staff. As with other Departments, such as Health and Education, it should seek a balance in the ratio between technical and administrative staff. Agricultural professionals must be jealous of their discipline. This can go a long way in improving the services to farmers and, thereby, improve

We need to develop agricultural expertise

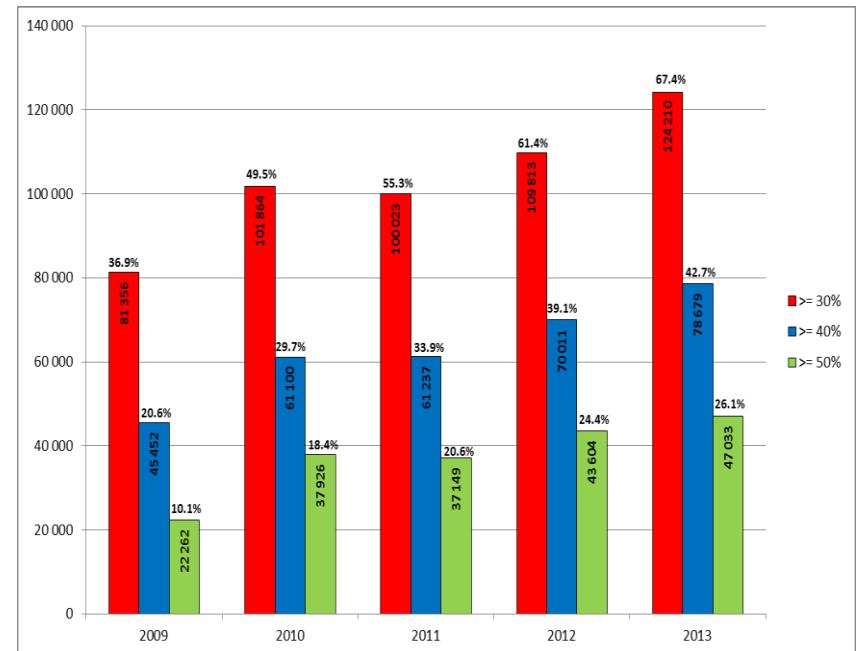
- Agricultural business and industry leaders are concerned about:
 - Practical expertise
 - Scientists
 - Agriculturalists
 - Extensionists
 - Breeders
 - Production specialists
 - Irrigation specialists
 - ..and economists
- Where will we find them? At the schools?

The talent pool

Mathematics pass rates



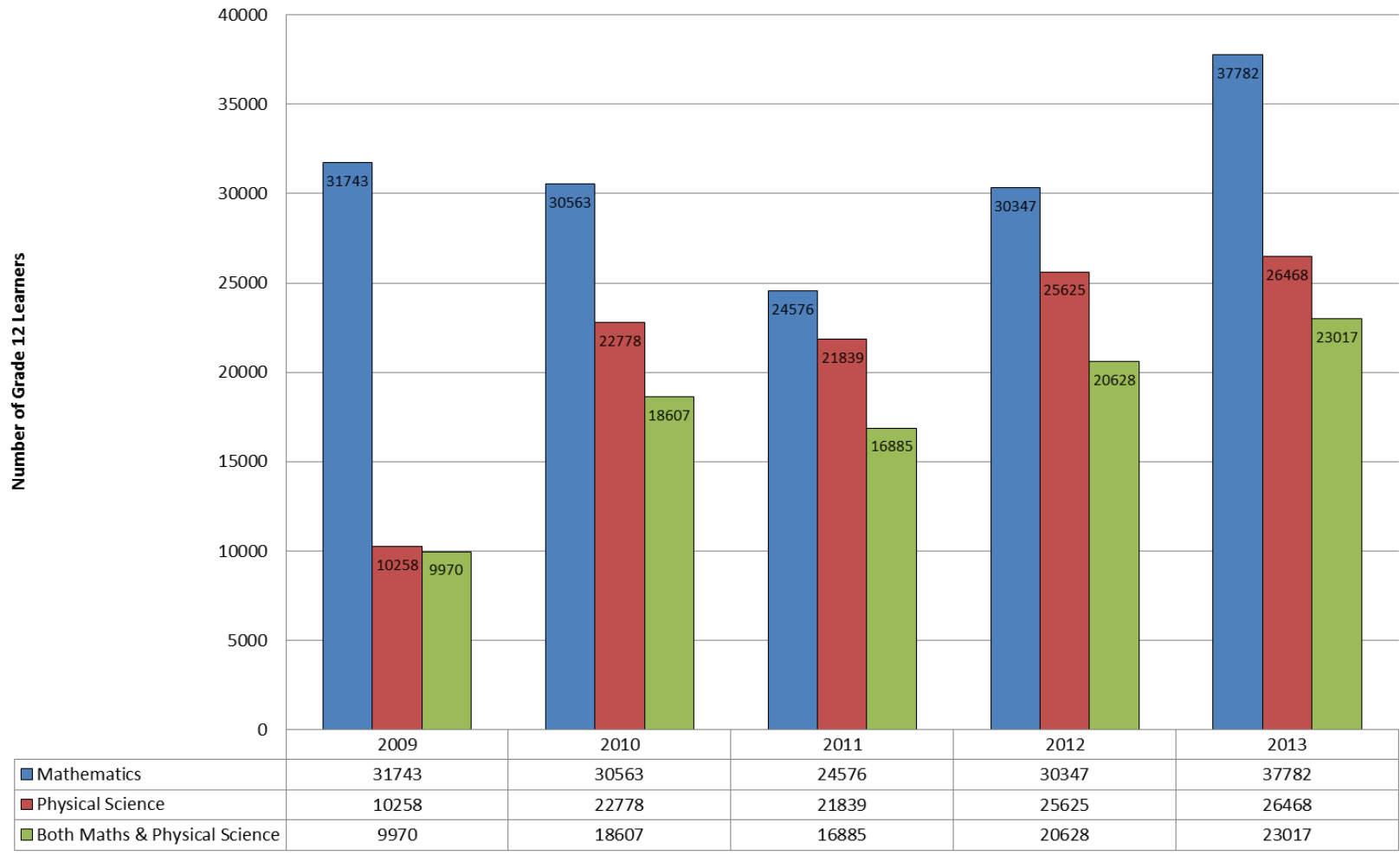
Physics pass rates



The talent pool (2)

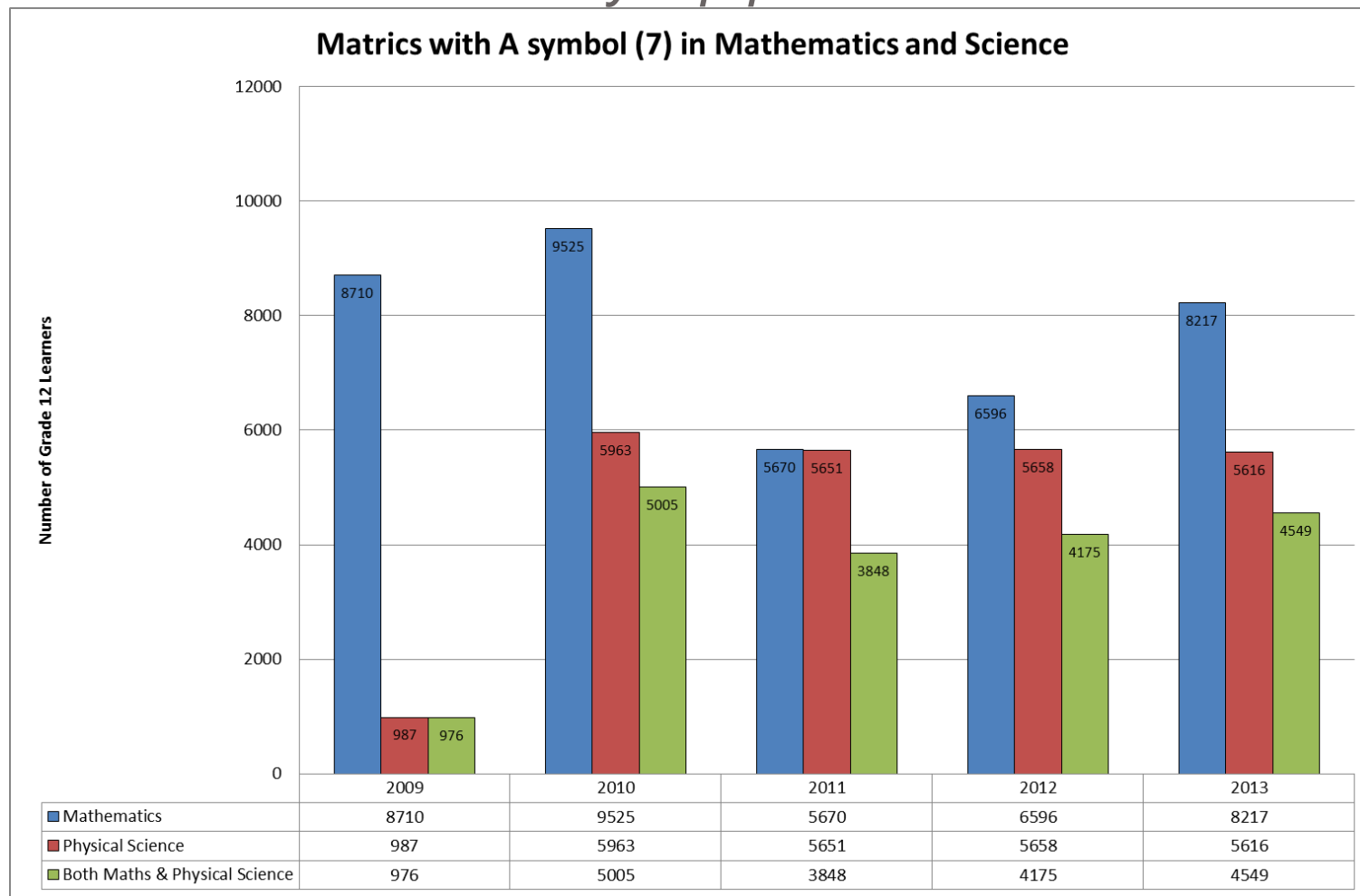
For agricultural degrees you need more than a C

Matrics with symbols A-C (5-7) in Mathematics and Science



Talent pool (3)

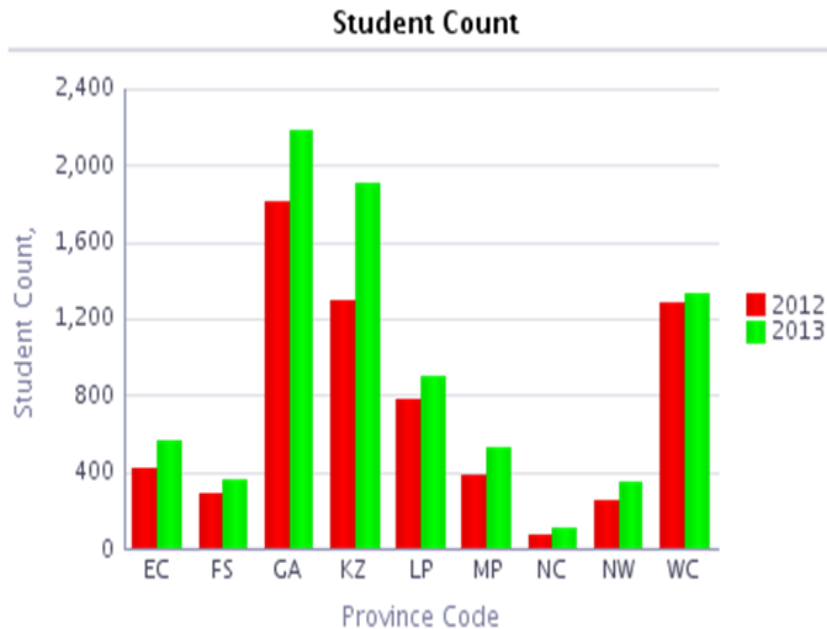
How many top performers?



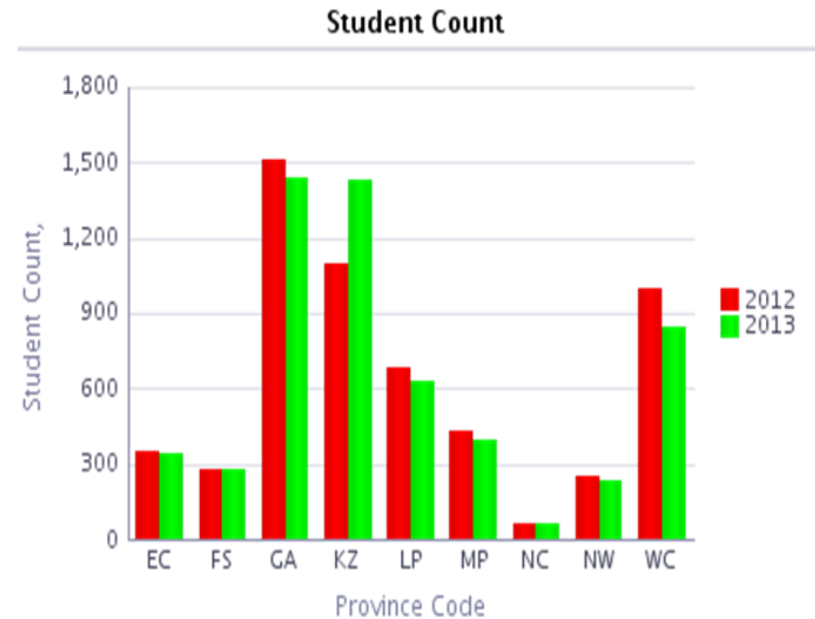
Talent pool (4)

Where are the top performers? – In the metropolitan areas!

A's in mathematics



A's in Science



..but agriculture has an image problem!

- Farmers, expertise in agriculture and agribusiness are ageing.
- Agriculture needs to attract more young people
- But:
 - Exodus of rural youth
 - Agriculture is not seen as being 'cool'
 - Education in rural areas are very poor.
 - Urban youth has some interest in agriculture but lacks experience and understanding of agriculture/farming and rural areas.

What do students enrol for?

An illustration from UP – 40 000 applications

Faculty	2011	2012	2013	2014
Humanities	1456	1340	1640	1490
Natural and Agricultural Sciences	1617	1519	1940	1798
Law	121	169	206	240
Theology	77	55	64	64
Economic and Management Sciences	1701	1801	1847	1747
Veterinary Science	80	145	189	152
Education	1031	909	972	980
Health Sciences	1101	1271	1419	1617
Engineering and IT	1707	1775	1905	2072
Total	8 891	8 984	10 182	10 160

Future challenges of agriculture

- Resource issues
- Health and nutrition issues
- Thus : agriculture much more integrated with life sciences – technical and practical agricultural knowledge only part of the new skill set
- Solutions require much more comprehensive and integrated scientific approaches:
 - Genetics
 - Chemistry
 - Engineering
 - Health sciences

Where do students study agriculture?

- University of Stellenbosch
 - University of Pretoria
 - University of Limpopo
 - University of the Free State
 - University of Kwazulu-Natal
 - University of Fort Hare
 - University of Venda
 - University of North West (Mafikeng)
-
- Most students have **urban background** with little practical agricultural knowledge
 - Most students enrol in NAS faculties studying biological sciences in the hope to get into medicine and veterinary science

Need for special interventions

- Career fair at : UP and US
 - Private sector exhibitors introducing agricultural careers to existing and prospective students
 - Internships and scholarships
- Good, but...
- We need more proactive engagement from the agricultural industry and agribusinesses
 - Better and stronger collaboration with universities
 - Identify students early
 - Scholarships, internships, holiday work
 - Should not be piecemeal
 - Partner with universities to develop world class research and training facilities

The biggest intervention is needed in our rural communities

- The rural communities where most of our agribusinesses are based are troubled by:
 - Persisting infrastructural deficiencies
 - Social problems
 - Alcohol and drug abuse
 - High school drop out rate
 - Broken families
 - Domestic violence
 - Poverty and malnutrition
- A very small pool of rural people skilled enough to be employed by agribusiness firms and farmers
- The social and infrastructural dilemmas need to be fixed first
- This is **no** small matter!...requires time, effort and trust

Socio-economic development and the role of agribusiness

- Agribusiness needs to nurture and develop its rural communities
- This is an important talent pool – fix the social problems, provide opportunities and develop skills
- Create hope for the children. Create a future.
- Are Agbiz members doing enough?
- Maybe... 2009 survey suggest that:
 - 94% of members see SED as a priority
 - Scoring for SED is generally good as companies have historically focused on this type of corporate social investment. IMPACT?

Closing remarks

- Skilled people is needed for:
 - A prosperous farming and agribusiness sector
 - A solid government support, regulatory and advisory system
 - Technical innovations to assist the competitiveness of the industry
- The numbers produced at universities are limited and government policies, processes nor the ASSAF study is likely to bring long lasting solutions.
- There is an important responsibility on agribusiness, large farming operations, commodity organisations/trusts and investors:
 - Partner with universities
 - Identify and support students at an early age
 - Assist with SED efforts in local communities and identify potential in these communities for further training in agriculture
 - Help to inform the new image that agriculture/food is life and is 'cool'.