

# Umnga Skills for Africa Joint venture

JV Members: Umnga Farmers Training Group, Skills for Africa, Agri-skills Transfer, Die Vleisopleidingsentrum; Agri-pedia

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## Report on Practical Training: NARYSEC Programme

To

## The University of the Free State



For the attention of: Dr. A.C. Geyer  
Director Agricultural Development  
Office of the Dean  
Faculty for Natural and Agricultural Sciences  
Bloemfontein

4 JULY 2017



**rural development  
& land reform**

Department:  
Rural Development and Land Reform  
REPUBLIC OF SOUTH AFRICA

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## 1. Introduction and overview

The University of the Free State was appointed during March 2017 to conduct a training programme to the beneficiaries of the NARYSEC programme, under the Department of Rural Development and Land Reform.

As part of the theoretical training phase, the training programme and content was offered in 4 clusters, namely:

- Cluster 1: Communication skills in the workplace
- Cluster 2: Numeracy skills in the workplace
- Cluster 3: Agricultural management Practices
- Cluster 4: Enterprise Production Practices

In preparation and in support of the Enterprise production practices classes, some practical training was offered at various commercial farmers around the Bloemfontein area, to ensure that all learners have a good practical understanding of the theoretical content of each module.

## 2. Training report

**The following practical modules was offered:**

### 2.1 National Certificate: Animal Production, NQF 4

US Number	Title	Type	Credits
116281	Animal classification and natural history	C	2
116318	Breeding systems	C	3
116300	Manage damage control in animals	C	2
116285	Functional animal anatomy and physiology	C	3
116282	Ruminant nutrition	C	4
116308	Animal health and biosecurity	C	3
116307	Harvesting of animal products	C	3

### **The purpose of the practical programme**

A special practical facilitation was arranged on the Paradys Experimental farm for all animal production students.

On Monday, 12 June 2017, all students were transported by bus to the Paradys Experimental farm as from 08H00 on the morning. The duration of the training

The purpose and objective of the practical training was to expose the students to several livestock practices, as well as some industry leaders and role-players in the livestock sector.

### **Report on activities and outcomes achieved**

The practical programme was presented in 5 clusters, as follows:

## Cluster 1. The University of the Free State.

**Presenter:** Mr. Johan Barnard (M. Sc. Agric and Manager Paradys Experimental farm)

### Outcomes:

- Classification of cattle breeds
- Conformation of cattle
- Characteristics of cattle
- Judging standards of cattle
- Cattle handling facilities
- Handling procedures of cattle
- Demonstrate branding and marking of animals
- Demonstration of handling facilities
- Aging of cattle
- Restraining of cattle

### Photos



## Cluster 2. Zoetis Animal Health

**Presenters:** Dr Chantelle Erwee (Technical Manager: Ruminants), and Mr. Johannes van Rooyen (Professional Sales Representative) Zoetis

### Outcomes:

- Clinical examination of sheep, including ageing, signs of disease etc.
- General information on farming, biosecurity etc.
- What is vaccination and how does it work, what is an antibiotic and how does it work etc.
- Parasites, dips, anthelmintics etc.
- Responsible use of anthelmintics and antibiotics etc.
- Brief introduction to Zoetis and our products.

### Photos



### Cluster 3: BKB Wool and Livestock demonstrations.

Presenter: Mr. Jan Joubert, Senior Sheep and Wool Technologist, BKB.

- Sheering of sheep / harvesting of wool
- Characteristics of wool sheep
- Judging standards of sheep
- Wool sorting and classification
- BKB and the wool industry
- Sheep shearing and handling facilities

#### Photos



## Cluster 4: SENWES / Hinterland Equipment display en demonstrations

**Presenters:** Mr Piet Mooi (Animal health representative for Bentro); and  
Mr Michael May (Animal Science Assistant Hinterland)

**Outcomes:** Different brands of livestock handling equipment and the use of:

- Ear notch clippers
- Sheep tally counter
- Gas tail cutter (Hot gas pliers)
- Castration ring applicator with elastic bands
- Dose / drench gun
- Syringes automatic / plastic with different needle sizes
- Calve pullers
- Mastitis ointments and applicators
- Horn clippers
- De-budding spoon
- Horn branding iron
- Burdizzo (Cattle and sheep)
- Dip pour-ons
- Knapsack sprayers
- Dip remedies
- Ear tag applicators with different ear tag sizes
- Branding iron with pliers, oven. Letters, numbers and alternatives
- Tattoo pliers with letters and ink

### Photos



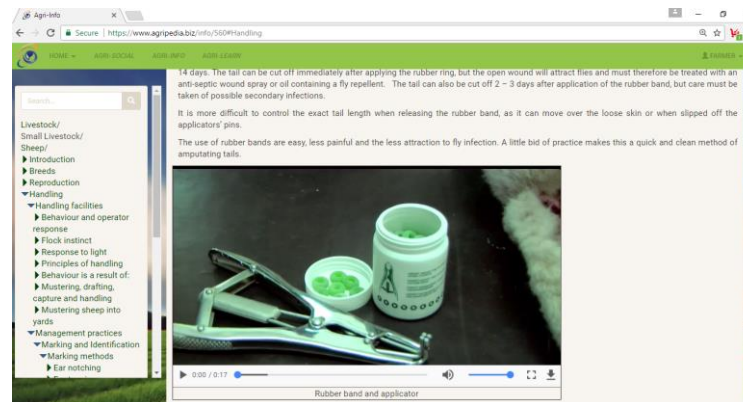
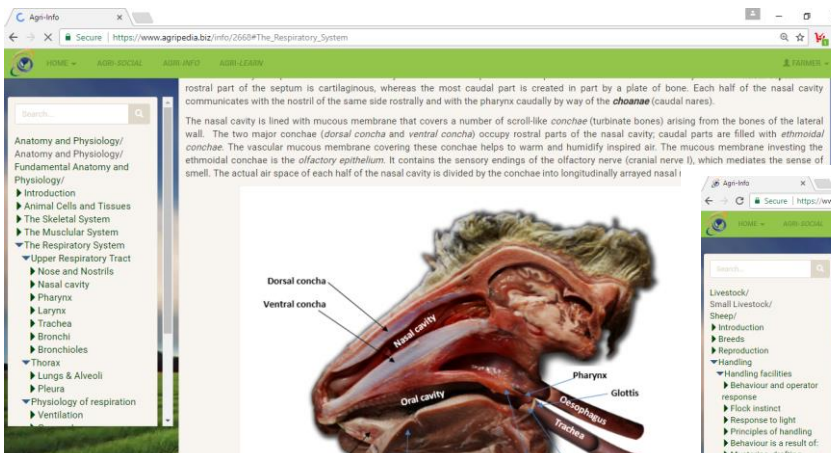
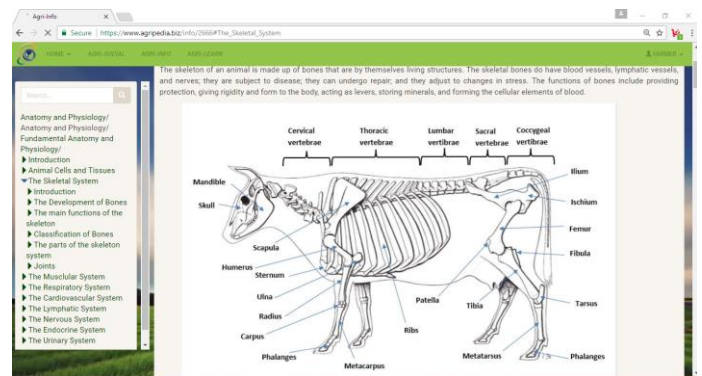
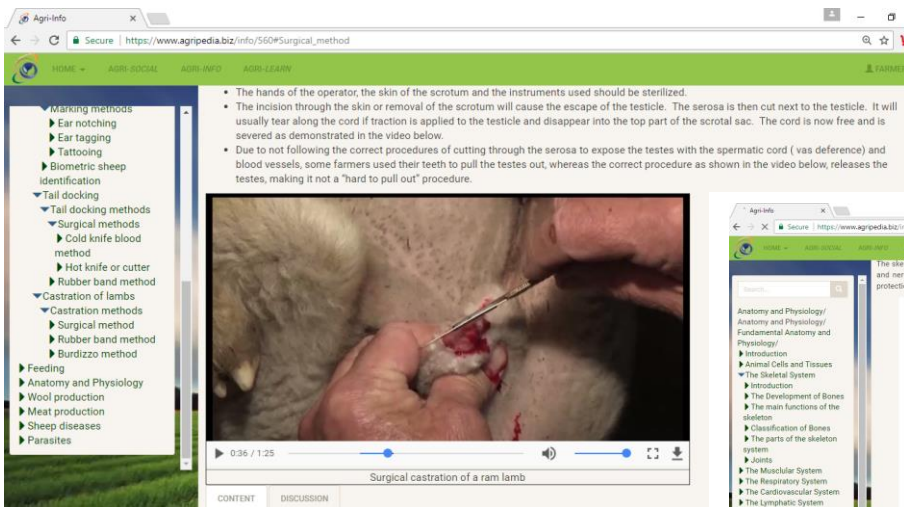
# Cluster 5: Agri-pedia (Pty) Ltd.

Presenter: Mr. Johann Stassen

Outcomes: The following topics was presented and discussed

- The content of the technical livestock production course and manual
- Methods of presentation
- Audio-visual presentations
- The use of the Agri-pedia E- Agriculture platform
  - Registration
  - How to use the links and features
  - Search features
  - How the training manual link to the livestock content
  - The use of Agri-social to communicate problems during the training phase

## Photos Agri-pedia website





## 2.2 National Certificate: Plant Production, NQF 4

US Number	Title	Type	Credits
116311	Soil fertility and plant nutrition	C	3
116305	Plant manipulation	C	3
116316	Plant propagation	C	3
116295	Physiological plant growth	C	3
116301	Pest, disease and weed control	C	3
116297	Harvesting planning and procedures	C	3
116317	Irrigation systems	C	3
116279	Implement a permaculture site design	E	7
116314	Produce crop in a hydroponic system	E	4
116306	Manage organic certification and internal control systems	E	5

### The purpose of the practical programme

The purpose and objective of the practical training was to achieve the following outcomes:

- Introduction of the farming activities and daily schedule of the business
- Different enterprises and products
- Different technical production operations (Soil preparation, planting, fertilizer and chemical applications, planting methods, maintenance, crop spraying, harvesting, etc.)
- Analysis of the different Enterprise Budgets, Products and Costs
- Harvesting, packing, cooling and transportation
- The types of irrigation systems used (Centre Pivot and dripper lines)
- Water and Irrigation management
- Demonstration of various small tractors and implements used in the production of vegetables
- Markets and market fluctuations
- Risks in the business

### Report on activities and outcomes achieved

For logistic and to achieve a better student to facilitator ratio, the practicals was presented over 2 days.

- On Wednesday, 14 June 2017, a combined female group of 50 students were transported to the farm “Wag ‘n Bietjie”, of Mr. D.P. Voster, outside Bloemfontein, in the Bainsvlei district.
- On Thursday 22 June 2017, a combined male group of 46 students were transported to the farm “Wag ‘n Bietjie”, of Mr. D.P. Voster, outside Bloemfontein, in the Bainsvlei district.

The following outcomes were achieved by both groups:

- Introduction of the farming activities and daily schedule of the business
- Different enterprises and products, being:
  - Cabbage production
  - Sweet potato production
  - Irrigation systems and methodology
  - Soil classification and types
  - Weed types and control
  - Soil preparation methods

- Calibration of fertiliser spreader
  - Automated planting of cabbage seedlings
  - Commercial harvesting machinery and harvesting of Teff
  - Raking and balking of Teff
- Different technical production operations (Soil preparation, planting, fertilizer and chemical applications, planting methods, maintenance, crop spraying, harvesting, etc.)
  - Analysis of the different Enterprise Budgets, Products and Costs
  - Harvesting, packing, cooling and transportation
  - The types of irrigation systems used (Centre Pivot and dripper lines)
  - Water and Irrigation management
  - Demonstration of various small tractors and implements used in the production of vegetables
  - Markets and market fluctuations
  - Risks in the business

### Photo report





US Type	ID	US Title	NQF Level	Credits
Core	115190	Fruit market requirements	2	5
Core	115187	Product characteristics	2	4
Core	115176	Cold chain process	2	4
Core	115201	Receive fruit	3	5
Elective	115181	Apply Hygiene procedures	2	4
Elective	115186	Apply health and Safety Procedures	3	6
Core	115193	Grade fruit	2	5
Core	115195	Monitor fruit treatment process	3	8
Core	115202	Operate fruit packing line machine	3	10
Core	115180	Operate fruit sizing machine	3	8
Core	115178	Pack fruit	2	5
Core	115179	Palletise fruit	2	4
Core	115197	Store fruit	3	8
Core	115200	Dispatch final product	3	8

### **The purpose of the practical programme**

The following specific outcomes was planned to be achieved, and communicated prior to the practical with the management of JJ's Packing.

- The cold chain processes
- Receiving of products
- Pre-sorting and quality checks
- Packing and packing materials
- Palletisation
- Sorting and Packing machinery
- Operation of the mechanical packing line
- Importance of product characteristics
- Market requirements
- Quality tests
- Chemical treatment
- Grading
- Storing
- Packhouse layout and procedures
- Dispatching
- Health and safety aspects

### **Report on activities and outcomes achieved**

**On Tuesday, 20 June 2017**, a special arrangement was made with the vegetable packhouse of **JJ's**, a commercial producer and packing factory of beetroot and carrots. This gave the group of student's extensive practical exposure to experience the planned outcomes.

The bus collected all students at 07H30 from PMI Offices, where after they arrived at the vegetable packing facility of JJ's Packing at 09H15. The practical was facilitated by the owner of JJ's Packing, Mr B. Griesel, who guided and a very informative practical session on the following:

- The cold chain processes
- Receiving of products
- Pre-sorting and quality checks
- Packing and packing materials
- Palletisation

- Sorting and Packing machinery
- Operation of the mechanical packing line
- Importance of product characteristics
- Market requirements
- Quality tests
- Chemical treatment
- Grading
- Storing
- Packhouse layout and procedures
- Dispatching
- Health and safety aspects

## Photo report





## 2.4 National Certificate: Meat Processing, NQF 3

US Type	ID	US Title	NQF Level	Credits
Core	243026	Break beef sides and debone prime cuts	3	15
Core	243015	Split pork and sheep carcass into prime cuts	3	15
Core	243020	Salt and dry meat	3	4
Core	243028	Form and fill minced meat with automated equipment	3	5
Core	243018	Mincing of meat with automated equipment	3	4
Core	9062	Monitor food temperature of food products	3	4
Core	9046	Determine food quality	4	10

### The purpose of the practical programme:

- The split of a beef and pig carcass
- Different Beef and Pork cuts
- Mincing of meat
- Making of minced meat products
- Salting of meat for drying
- Packing of meat according to client's specifications
- Monitor food temperature of products
- Determine food quality

### Report on activities on the Group 1, male students:

- a. On Monday, 19 June 2017, a bus collected the male group of 27 students, together with the facilitator, Philemon Kalane at 06H00 at the Welmoed Lodge. All students had to take with them an overnight bag with clean clothing, toiletries and bedding.
- b. All students were issued with the following PPE':
  - a. Hair net (mop cap)
  - b. Beard net
  - c. Boot nets
  - d. Plastic apron
- c. Students did the following practical activities over the period of **Monday, 19 June**, until 17H00 on **Tuesday, 20 June 2017**:
  - The split of a beef and pig carcass
  - Different Beef and Pork cuts
  - Mincing of meat
  - Making of minced meat products
  - Filling of cases
  - Salting of meat for drying
  - Packing of meat according to client's specifications
- d. The male group returned to the Welmoed Lodge on the evening of Tuesday, 20 June 2017.
- e. All classes continued as normal at the University as from Wednesday, 21 June 2017.

## Report on activities on the Group 2, Female students:

- a. On Wednesday, 21 June 2017, a bus was arranged to collect the female group, 31 students, together with the facilitator, Petrus Mahapa, at 06H00 at the Lakewood Lodge. All students had to take with an overnight bag with clean clothing, toiletries and bedding.
- d. All students were issued with the following PPE's:
  - a. Hair net (mop cap)
  - b. Boot nets
  - c. Plastic apron
- e. Students did the following practical over the period of **Wednesday, 21 June**, until 17H00 on **Thursday, 22 June 2017**:
  - The split of a beef and pig carcass
  - Different Beef and Pork cuts
  - Mincing of meat
  - Making of minced meat products
  - Filling of cases
  - Salting of meat for drying
  - Packing of meat according to client's specifications
- d. The female group returned to the Lakewood Lodge on the evening of Thursday, 22 June 2017.
- e. All classes continued as normal at PMI Office as from Friday, 23 June 2017.

## Photo Report







## 2.5 National Certificate: Agric Sales and Services, NQF 4

US Number	Title	Type	Credits
7630	Interpreting financial reports in Retail/Wholesale practices	F	10
8146	Purchase Merchandise	C	12
8140	Determine stock levels	C	5
8137	Receive merchandise	C	4
8138	Pricing of merchandise	C	3
8141	Control of stock	C	8
8144	Complete sales transactions	C	6
8145	Marketing of Merchandise	C	10
8284	Selling goods and services	C	16
8254	Providing customer service	C	16
13195	Lead workgroup activities relating to material preparation processes	C	8
8286	Co-ordinating promotional activities	E	16
8143	Implement and run promotions	E	7
10136	Plan, organise and support project meetings and workshops	E	4

### The purpose of the practical programme:

The purpose of the practical was to visit the commercial branch of SENWES / Hinterland, in order to get practical exposure and insight on the following outcomes:

- Planning to order merchandise
- Order merchandise
- Purchase merchandise
- Receive merchandise
- Take and control stock levels
- Display and marketing of merchandise
- Pricing of merchandise
- Selling of goods and service
- Customer service
- Promotional activities
- Administration services according to workplace policy

## Report on activities

On Tuesday, 6 June 2017, the students walked from Mayo Lodge, approximately 800 meters to the SENWES / Hinterland Trading store in Bloemfontein.

The management of SENWES / Hinterland went to the extreme to accommodate the students and to train and practically demonstrate the following outcomes:

- Who is SENWES Hinterland in the South African Industry?
- The trading processes of SENWES Hinterland
- Suppliers of SENWES Hinterland
- Diversity of the market and various enterprises and departments
- The order and purchase of merchandise
- Ordering and receiving of stock
- Payment of stock
- Shop and store layout
- Pricing and packing of stock
- Stock control process
- Floor and store management
- Point of sale and daily balancing
- Completing a sale transaction
- Sales of goods and services
- Customer services
- Marketing and sales promotions
- Client communication
- Administrative functions and support
- Theft and other internal problems
- HR processes and procedures
- General management of the retail outlet
- Commercial farmers and accounts / credit purchases
- Debtors and Creditors management

## Photo Report



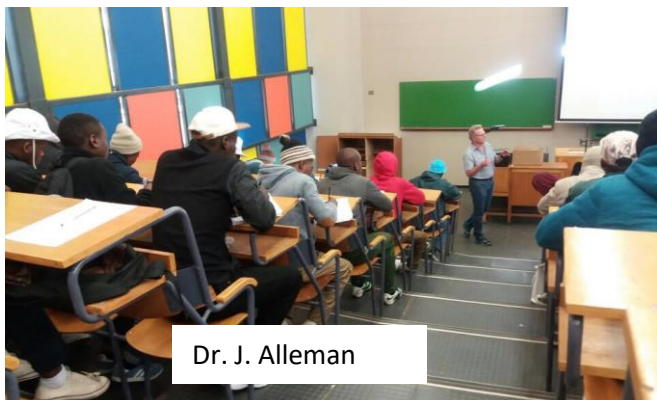


### 3. Professional lecturers presented by the University of the Free State

Lecturers from the University of the Free State, contributed to the training programme through the following lectures:

#### 3.1 Plant production

US Number	Title	Date	Lecturer
116286	Overview of the Crop Industry	21/06/2017	Dr. J. Alleman
116291	Develop a Crop Business Plan	21/06/2017	Mr. P.Z Mokhatla
116684	Develop a Crop Marketing Plan	21/06/2017	Me P. Medende
116319	Develop a Complete Crop Farm Budget	21/06/2017	Me P. Medende
116311	Soil fertility and plant nutrition	21/06/2017	Prof. C. van Huysteen



Dr. J. Alleman



Me P. Medende



Mr. P.Z Mokhatla



Prof. C. van Huysteen

### 3.2 Animal production

US Number	Title	Date	Lecturer (PMI en Thaba Nchu)
116286	Overview of the Livestock Industry	22/06/2017	Mr. F.A. Mare
116291	Develop a Livestock Business Plan	22/06/2017	Mr. P.Z Mokhatla
116684	Develop a Livestock Marketing Plan	22/06/2017	Me P. Medende
116319	Develop a Complete Livestock Farm Budget	22/06/2017	Mr. P.Z Mokhatla
116282	Ruminant nutrition	22/06/2017	Dr O. Einkamerer



### 3.3 Agric Sales and Services

US Number	Title	Date	Lecturer
7630	Interpreting financial reports in Retail/Wholesale practices	23/06/2017	Dr. P.C. Cloete



### 3.4 Fruit Packing and Grading

US Number	Title	Date	Lecturer
115190	An overview of the South African citrus and fruit industry and international markets and competition	23/06/2017	Dr. G. Coetzer



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End of Report