



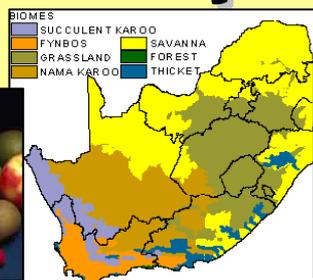
NQF Level: 1

US No: 116158

Learner Workbook

Primary Agriculture

Apply Basic Agricultural Enterprise Selection Principles



My Name:

My Workplace:

Commodity: Date:

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agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA



Before we start...

Dear Learner - on completion of the Learner Guide, you will have acquired all the knowledge and skills to be assessed against the following unit standard:

Title: Apply basic agricultural enterprise selection principles		
US No: 116158	NQF Level: 1	Credits: 2

Please read the unit standard at your own time (see **Learner Guide**).

What is assessment all about?

Assessment takes place at different intervals of the learning process and includes various activities. Some activities will be done before the commencement of the program whilst others will be done during programme delivery and other after completion of the program.

The assessment experience should be user friendly, transparent and fair. Should you feel that you have been treated unfairly, you have the right to appeal. Please ask your facilitator about the appeals process and make your own notes.

How to use this workbook ...

Your activity workbook will be handed in from time to time on request of the facilitator for the following purposes:

- ◆ The activities that follow are designed to help you gain the skills, knowledge and attitudes that you need in order to become competent in this learning module.
- ◆ It is important that you complete all the activities and worksheets, as directed in the learner guide and at the time indicated by the facilitator.
- ◆ It is important that you ask questions and participate as much as possible in order to play an active roll in reaching competence.
- ◆ When you have completed all the activities and worksheets, hand this workbook in to the assessor who will mark it and guide you in areas where additional learning might be required.
- ◆ You should not move on to the next step in the assessment process until this step is completed, marked and you have received feedback from the assessor.
- ◆ Your facilitator should identify sources of information to complete these activities.
- ◆ **Please note** that all completed activities, tasks and other items on which you were assessed must be kept in good order as it becomes part of your **Portfolio of Evidence** for final assessment.



1.1
SO 1 AC 1 - 5

Working in groups, answer the questions below:

My Name:
My Workplace:
My ID Number:

1. Discuss the ideal soil types for the crop you produce. Explain why this soil type is ideal. (Make keynotes for yourself.)

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2. Discuss why the soil potential in areas such as the Western Cape is higher than the soil potential in the Kalahari Desert. (Make key notes for yourself.)

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Facilitator comments:

Assessment:



1.2
SO 1 AC 1 - 5

Working in pairs, make notes about the following:

My Name:

My Workplace:

My ID Number:

1. Work in pairs and make notes about the following:

<p>Water sources for my farm:</p>	
<p>Type of farming system we operate and its relation to water sources</p>	

Facilitator comments:

Assessment:



1.3
SO 1 AC 1 - 5

Read the following article to supplement your knowledge, make notes on what you discovered:

My Name:

My Workplace:

My ID Number:

1. Read the following article to supplement your knowledge, make notes of what you discovered:

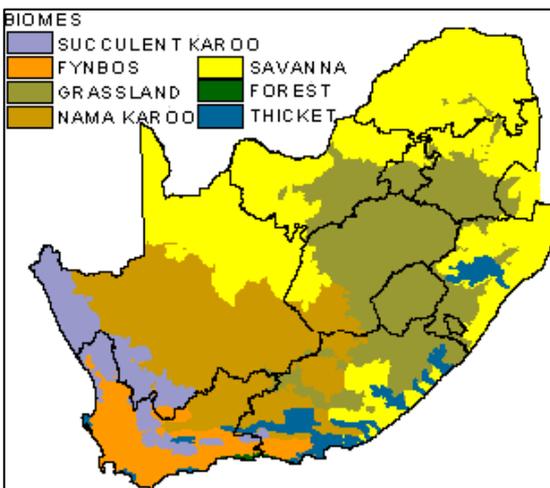
South Africa occupies the southern tip of Africa, its long coastline stretching more than 2 500km from the desert border with Namibia on the Atlantic coast southwards around the tip of Africa and then north to the border with subtropical Mozambique on the Indian Ocean.

The low-lying coastal zone is narrow for much of that distance, soon giving way to a mountainous escarpment that separates it from the high inland plateau. In some places, notably the province of KwaZulu-Natal in the east, a greater distance separates the coast from the escarpment.

Although the country is classified as semi-arid, it has considerable variation in climate as well as topography.

The great inland Karoo plateau, where rocky hills and mountains rise from sparsely populated scrubland, is very dry, and gets more so as it shades in the north-west towards the Kalahari desert. Extremely hot in summer, it can be icy in winter.

In contrast, the eastern coastline is lush and well watered, a stranger to frost. The southern coast, part of which is known as the Garden Route, is rather less tropical but also green, as is the Cape of Good Hope - the latter especially in winter. This south-western corner of the country has a Mediterranean climate, with wet winters and hot, dry summers. Its most famous climatic characteristic is its wind, which blows intermittently virtually all year round, either from the south-east or the north-west.



The eastern section of the Karoo does not extend as far north as the western part, giving way to the flat landscape of the Free State, which though still semi-arid receives somewhat more rain. North of the Vaal River the Highveld is better watered and saved by its altitude (Johannesburg lies at 1 740m; its annual rainfall is 760mm) from subtropical extremes of heat. Winters are cold, though snow is rare.

Further north and to the east, especially where a drop in altitude beyond the

escarpment gives the Lowveld its name, temperatures rise: the Tropic of Capricorn slices through the extreme north. This is also where one finds the typical South African Bushveld of wildlife fame.

Those looking for an opportunity to ski in winter head for the high Drakensberg mountains that form the eastern escarpment, but the coldest place in the country is Sutherland in the western Roggeveld Mountains, with midwinter temperatures as low as -15°C. The deep interior provides the hottest temperatures: in 1948 the mercury hit 51.7°C in the Northern Cape Kalahari near Upington.

Average temperatures in °C		
	Summer	Winter
Cape Town	20	12.6
Durban	23.6	17
Johannesburg	19.4	11.1
Pretoria	22.4	12.9

Source: Lew Leppan: The South African Book of Records. Cape Town, Don Nelson, 1999.

By far South Africa's biggest neighbour is the ocean - or two oceans, which meet at the southwestern corner. Its territory includes Marion and Prince Edward Islands, nearly 2 000km from Cape Town in the Atlantic Ocean.

The cold Benguela current sweeps up from the Antarctic along the Atlantic coast, laden with plankton and providing rich fishing grounds. The east coast has the north-to-south Mozambique/Agulhas current to

thank for its warm waters. These two currents have a major effect on the country's climate, the ready evaporation of the eastern seas providing generous rainfall while the Benguela current retains its moisture to cause desert conditions in the west.

Several small rivers run into the sea along the coastline, but none are navigable and none provide useful natural harbours. The coastline itself, being fairly smooth, provides only one good natural harbour, at Saldanha Bay north of Cape Town. A lack of fresh water prevented major development here. Nevertheless, busy harbours now exist at Cape Town, Port Elizabeth, East London, Durban and Richard's Bay.

On dry land, going from west to east, the country shares long borders with Namibia and Botswana, touches Zimbabwe, has a longitudinal strip of border with Mozambique to the east, and lastly curves in around Swaziland before rejoining Mozambique's southern border. In the interior, nestled in the curve of the bean-shaped Free State, is the small mountainous country of Lesotho, completely surrounded by South African territory.

There are only two major rivers: the Limpopo, a stretch of which is shared with Zimbabwe, and the Orange (with its tributary, the Vaal) which runs with a variable flow across the central landscape from east to west, emptying into the Atlantic Ocean at the Namibian border. In so dry a country, dams and irrigation are extremely important: the largest dam is the Gariep on the Orange River.

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1.4

SO 1 AC 1 - 5

Walk around on your farm and make notes regarding the following:

My Name:

My Workplace:

My ID Number:

1. Walk around on your farm and make notes regarding the following:

General description of the topography of my area:	
General description of the climate of my area:	
Average Annual rainfall on my farm:	
Elevation and slope direction of my farm:	
Prevailing wind direction on my farm:	
The crop that we produce on my farm:	
Why the climate, geographical influences, topography, etc. is particularly suited for the type of crop we produce?	
What other types of crops this area would be suitable for?	

Facilitator comments:

Assessment:



2.1

SO 2 AC 1 - 4

Discuss with a partner...

My Name:

My Workplace:

My ID Number:

- If you had to decide on an area where you would like to start a commercial farm, tick (✓) off the things that you would consider necessary in order to run it as an agri-business:

Connected water through pipes to the nearest water storage dam to the farm	<input type="checkbox"/>
Tarred roads to the farm	<input type="checkbox"/>
Tarred roads on the farm	<input type="checkbox"/>
A nice house to live in	<input type="checkbox"/>
Irrigation canals from the river to the farm	<input type="checkbox"/>
Access roads for delivery of stock and distribution of my crops	<input type="checkbox"/>
Telephone access to my farm (landlines or cellular)	<input type="checkbox"/>
A nice view to see whilst my workers are working on the farm	<input type="checkbox"/>

- Once you have selected a specific farm for purchase, make a list of the structures that you think you will have to erect in order to make your business efficient.
Motivate the use of each structure:

Structures I would erect...	Why...

Facilitator comments:

Assessment:



3.1

SO 3 AC 1 - 4

Discuss as a group and record your findings

My Name:

My Workplace:

My ID Number:

Answer the following questions for your area:

- Match the commodity with the type of farming you think best suitable for high volume, low cost production, by linking them with a line.

Cattle Corn Chickens Grapes Peaches Tomatoes Strawberries Sheep Grain Turkey	Battery Poultry Farming Feedlot farming Dry land farming Hydroponic farming Irrigated farming
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- Match the commodity with the level of farming you think best suitable for high volume, low cost production, by linking them with a line.

Cattle Corn Chickens Grapes Peaches Tomatoes Strawberries Sheep Grain Turkey	Extensive Farming Intensive Farming
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3. You have decided to farm with grapes for the purpose of **winemaking**. Choose the most appropriate description of the farming systems that you think are suitable.

Methods & Descriptions to select from:

Extensive farming	
Intensive farming	
Dry land farming	
Irrigated farming	
Hydroponics	
Feedlot farming	
Battery poultry farming	
Commercial farming	
Subsistence farming	

4. What is extensive farming?

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5. What is intensive farming?

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6. What does one farm on an Arable farm?

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7. What does one farm on a Pastoral farm?

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8. What does a “mixed farmer” farm with?

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9. What is the difference between subsistence & commercial farming?

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10. When is dry land farming considered?

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11. What is irrigated farming?

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12. What is hydroponic farming?

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13. What is feedlot farming?

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14. What is battery poultry farming?

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Facilitator comments:

Assessment:



3.2

SO 3 AC 1 - 4

Discuss as a group and record your findings

My Name:

My Workplace:

My ID Number:

1. Make a list of all the crop and livestock types on the farm where you work.

Crops	Livestock

2. From the list above, select your favorite crop and live stock type, and describe the characteristics that allow them to flourish in the area where you farm.

Crop	
Live stock type	

Facilitator comments:

Assessment:



4.1

SO 4 AC 1 - 4

Research and find out

My Name:

My Workplace:

My ID Number:

Compare the production cycles for two of your favourite agricultural products: Take down notes after discussing inputs from various members of the group:

Info	Product 1 (fresh produce e.g. fruit)	Crop 2 (meat product)
What type of crop is it?		
In what month does one plant?		
What kinds of manipulations / chemical actions are done during the growth cycle?		
How long does it normally take before fruit / the crop forms?		
At what strategic points will workers have to perform actions on the crop?		
What types of actions and what will the consequences of those actions?		
How will we know when the crop is ready for harvest?		
Which month/s of the year do we normally harvest this type of crop?		
What needs to happen to the crop after it has been harvested, but before it can be sold to the market?		
What is the time duration from planting until harvesting?		
What other factors do you know of that should be considered during this cycle?		

Facilitator comments:

Assessment:

Assessment Feedback Form

Comments / Remarks	
Feedback to learner on assessment:	
Feedback from learner to assessor:	
Learner's Signature:	Date:
Assessor's Signature:	Date:

Checklist for practical assessment ...

Use the **checklist** below to help you prepare for the part of the practical assessment when you are observed on the **attitudes** and **attributes** that you need to have to be found competent for this learning module.

When observed ...	Answer Yes or No	Motivate your answer (Give examples, reasons, etc.)
1. Can you identify problems and deficiencies correctly?		
2. Are you able to work well in a team?		
3. Do you work in an organised and systematic way while performing all tasks and tests?		
4. Are you able to collect the correct and appropriate information and / or samples as per the instructions and procedures that you were taught?		
5. Are you able to communicate your knowledge orally and in writing, in such a way that you show what knowledge you have gained?		
6. Can you base your tasks and answers on scientific knowledge that you have learnt?		
7. Are you able to show and perform the tasks required correctly?		
8. Are you able to link the knowledge, skills and attitudes that you have learnt in this module of learning to specific duties in your job or in the community where you live?		

- ◆ The assessor will complete a checklist that gives details of the points that are checked and assessed by the assessor.
- ◆ The assessor will write commentary and feedback on that checklist. They will discuss all commentary and feedback with you.
- ◆ You will be asked to give your own feedback and to sign this document.
- ◆ **It will be placed together with this completed guide in a file as part of your Portfolio of Evidence.**
- ◆ The assessor will give you feedback on the test and guide you if there are areas in which you still need further development.

Paperwork to be done ...

Please assist the assessor by filling in this form and then sign as instructed.

Learner Information Form				
Unit Standard	116158			
Program Date(s)				
Assessment Date(s)				
Surname				
First Name				
Learner ID / SETA Registration Number				
Job / Role Title				
Home Language				
Gender:	Male:		Female:	
Race:	African:	Coloured:	Indian/Asian:	White:
Employment:	Permanent:		Non-permanent:	
Disabled	Yes:		No:	
Date of Birth				
ID Number				
Contact Telephone Numbers				
Email Address				
Postal Address				Signature: