



NQF Level: 4

US No: 116303

Assessment Guide

Primary Agriculture

Resource Management

Assessor:

Workplace / Company:

Commodity: Date:

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agriculture
Department:
Agriculture
REPUBLIC OF SOUTH AFRICA



Before we start...

This assessment guide contains all necessary activities and instructions that will enable the assessor and learner to gather evidence of the learner's competence as required by the unit standard. This guide was designed to be used by a trained and accredited assessor whom is registered to assess this specific unit standard as per the requirements of the AgriSETA ETQA.

Prior to the delivery of the program the facilitator and assessor must familiarise themselves with content of this guide, as well as the content of the relevant Learner Workbook.

The assessor, facilitator and learner must plan the assessment process together, in order to offer the learner the maximum support, and the opportunity to reflect competence.

The policies and procedures that are required during the application of this assessment are available on the website of the AgriSETA and should be strictly adhered to. The assessor must familiarise him/herself with this document before proceeding.

This guide provides step-by-step instructions for the assessment process of:

Title:	Implement a natural resource management plan		
US No:	116303	NQF Level:	4
		Credits:	3

This unit standard is one of the building blocks in the qualification listed below. Please mark the qualification you are currently assessing, because that will be determined by the context of application:

Title	ID Number	NQF Level	Credits	Mark
National Certificate in Animal Production	48979	4	120	ρ
National Certificate in Plant Production	49009	4	120	ρ

Please mark the learning program you are enrolled in:

Are you enrolled in a:	Y	N
Learnership?	ρ	ρ
Skills Program?	ρ	ρ
Short Course?	ρ	ρ

Note to Assessor:

If you are assessing this module as part of a full qualification or learnership, please ensure that you have familiarized yourself with the content of the qualification.

Instructions to learner:

Answer the questions

Learner Guide: Page 15 Facilitator Guide: Page 13

- Which three veld types are found in South Africa?

Model Answer(s):

Natural veld in South Africa can be divided into sweet, sour and mixed veld. These veld types differ mainly in the nutrient value and the palatability of the common grasses during the dormant season when the plants are not growing.

- Which veld type is found predominately in your farming area?

Model Answer(s):

No answer - it will vary from area to area.

- What is the main difference between the different veld types?

Model Answer(s):

These veld types differ mainly because of:

- (1) Nutrient value – the quantity of nutrients that a plant contains at a specific stage.*
- (2) Palatability – the tastiness of food as experienced by animals.*
- (3) Translocation of nutrients – the movement of nutrients from the plant's roots to the leaf base to survive during its growth period.*

Characteristics of sweet, sour and mixed veld:

Sweet veld

Occurs mainly in the lower laying frost free areas

Rainfall usually range from 250 – 500 mm per annum

Most grasses remains palatable through out the year, provided that the veld is in a good condition.

Is sensitive to overgrazing during the growth season

Recovers quickly after been grazed, provided that growing conditions is optimum.

Sour veld

Is found at higher altitudes with lower temperatures

Rainfall 625 mm per annum and more

Produce palatable grazing with a fairly high nutritive value during the growth season

Can withstand overgrazing but resulting to lower production

Recovers slower from utilisation than sweet veld

Mixed veld

Intermediary form between sweet and sour veld

Characteristics similar to that of sweet veld - known as sweet mixed veld

Characteristics similar to that of sour veld - known as sour mixed veld.

1.3

SO 1

Instructions to learner:

Answer the questions

Learner Guide: Page 18 Facilitator Guide: Page 13

1. Complete the map of South Africa by adding the different biomes on the map

Model Answer(s):

A map is provided to a learner whom must add the different biomes clearly and must contain the characteristics of these biomes which are:

	Biome	Characteristics
1	Forests	800- 1000mm rain through out the year. Large forest area. Summers are warm with mild winters. Knysna in Western Cape, the Eastern Cape and KZN. In certain areas trees are planted in plantations for wood production, KZN, Eastern Cape, Western Cape, Mpumalanga and Limpopo
2	Thicket	Evergreen scrubs and small trees - not tall enough for forestry - with little grass. Falls between a forest and a savannah biome. Rainfall in summer up to 1000mm per annum
3	Savannah	Mixture of grassland and trees, 650 – 1000 mm rainfall annually , mainly during the summer Bush veld area of the country and parts of North West province, Northern Cape, KZN and Eastern Cape
4	Grassland	Large areas with grassland, rainfall from 400-800mm during the summer. Summer temperature hot with cold winters and frost. Free State , Mpumalanga –high veld, North West and KZN
5	Nama Karoo	Mixture of grass and scrubs with annual rainfall of 400 mm per year. Very hot summers and cold winters with frost. (Semi desert area)
6	Succulent Karoo	Large areas of succulent plants, scarce grass cover; rainfall 20 – 250 mm per year during the winter. In spring time large areas with beautiful veld flowers. Summers very hot and winters mild with no frost
7	Fynbos	Scrubs, grass and plants with narrow leaves; in the mountainous area for the Western Cape. Rainfall during the winter 400 –1200 mm per annum. Summers hot and winters cold and wet with frost in the higher areas.

Instructions to learner:

Draw up a schedule

Learner Guide: Page 30 Facilitator Guide: Page 13

Use the farming area known to the learners and allow them to:

1. Compile a schedule for agricultural practices as it is at present.

Model Answer(s):

The answers will vary from farm to farm but must include the following valid actions:

- a Stocking rate*
- b Animal ratio*
- c Rotational grazing*
- d Rotational resting and*
- e Burning of veld*

2. Compare the present day's practices with the management practices of natural resources.

Model Answer(s):

The answers will vary from farm to farm but must include:

- land and water management*
- biodiversity*
- agricultural practices*

3. Make proposals on how to make the practices more sustainable and

Model Answer(s):

The answers will differ from farm to farm and will fit in with comparisons made in 2.

4. Draw up a schedule of the sustainable management practices. (The schedule should include the monitored and reviewed practices when appropriate)

Model Answer(s):

This schedule enhances when should what happen where and should include the monitored and reviewed practices (when appropriate) as it is a recapitulation of answers 1, 2 and 3.

My Notes ...

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SO 2

Instructions to learner:

Practical exercise

Learner Guide: Page 38 Facilitator Guide: Page 15

Learners must go to a veld;

- (a) Record observations - from different assessment methods.

Model Answer(s):

No definite answer as it may differ from area to area.

- (b) Compile assessment log.

Model Answer(s):

The site is analysed in the following manner

- *Select an area of 30 m x 30m - approximately 0.1 ha*
- *Record within this area - at 200 randomly allocated positions - the specie's occurrence and basal covering by means of a wheel point apparatus. (You can also make use of your shoe – e.g. mark your left shoe with chalk and every time your left shoe touches down, identify the species next to the mark.*
- *Record the strikes as follow*

Strike	Living basal covering	Species of plant closest to the point
1		
2		
3		
4		
5		

% basal cover = number of strikes from the 200 points / 2

% contribution of each species = number of recorded positions for each species from 200 positions / 2

The species in the benchmark site must then be classified in four classes

<i>Veld condition score sheet</i>				
	Class	% of the species	Benchmark	Sample site
	<i>Composition score</i>		100	
1	<i>Decreasing species</i>			
2	<i>Increasing I species</i>			
3	<i>Increasing II species</i>			
4	<i>Increasing III species</i>			
	<i>Cover</i>			
	<i>Abundance of poisonous plants</i>	<i>Scale of 1 – 5</i>		
	<i>Vigour of Decreasing species</i>	<i>Scale of 1 – 5</i>		
	<i>Age distribution of grass plants</i>	<i>Scale of 1 – 5</i>		
	<i>Soil erosion</i>	<i>Scale of 1 – 5</i>		

3

SO 3

Instructions to learner:

Strategic plan

Learner Guide: Page 41 Facilitator Guide: Page 17

Use the farming enterprise (where you are working) as an example.

Compile a strategic plan for the production of one of the commodities produced at your farming enterprise:

1. Collect the necessary data to do the planning.

Model Answer(s):

No definite answer but must include:

- Climatic data – the rainfall, temperature, first day of frost, heat units.
- Soil data – soil type, soil formation, topography, soil fertility.
- Veld condition - vegetation /basal covering.

2. Analyse the data.

Model Answer(s):

No definite answer as the analyses depend on collected data.

3. Set a benchmark.

Model Answer(s):

No definite answer as the analyses depend on collected data.

4. Plan for 1 year, 5 years and 10 years.

Model Answer(s):

No definite answer as the analyses depend on collected data and should look like this.

One year plan of activities:

<i>Year plan for maintenance of Natural resources - Summer rainfall area</i>		
	<i>January - Summer</i>	<i>February Summer</i>
	<i>Camp rotation. Make hay of excess roughage. Store the hay away. Maintain roads and runoff water structures.</i>	<i>Make hay of the excess roughage. Store the hay away. Maintain roads and runoff water structures.</i>
<i>March - Autumn</i>	<i>April - Autumn</i>	<i>May - Winter</i>
<i>Make fire breaks. Maintain roads and runoff water structures.</i>	<i>Make fire breaks. Service fire equipment and keep ready for use. Start with the eradication of alien plants and weeds in vlei areas and water ways.</i>	<i>Use rested camps. Provide ruminants with winter lick. Put fire control action plan in action for the next four months. Start with the maintenance and repair of</i>

4

SO 4

Instructions to learner:

Answer

Learner Guide: Page 45 Facilitator Guide: Page 19

- Give a definition of delegation.

Model Answer(s):

Delegate - to assign a component of your power or a section of your work to subordinates (someone in a lower position) to assist you with the work that need to be done, but the responsibility will still remain with you. When you delegate work it is your responsibility to ensure that the work is done.

- Give examples of delegations in your work place.

Model Answer(s):

No definite answer as it may differ from workplace to workplace.

- What are the important elements a subordinate must understand when a task is delegated

Model Answer(s):

When a task is delegated, the subordinates must understand:

- *The necessity of the task*
- *What is expected from them*
- *Dates for report back and completion - deadlines*
- *The authority that is given for decision making*
- *How to deal with problems they may encounter*
- *How they will be guided and monitored*
- *The resources and facilities to be used for the completion of the work.*

My Notes ...

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Summative Test and Attitude & Attribute Evaluation

Before the knowledge test is undertaken, the learner must be reminded of what is expected from him / her in terms of summative and reflexive competence. Read and explain to the learner, the **Preparation for Your Final Assessment** section in the learner workbook. Learners and assessor should sign off this section to acknowledge that this step was completed.

Please set up a knowledge test from the questions given as a guideline to learners and supply each learner with a test sheet.

Supply each report with the following heading:

Unit Standard:	116303	NQF Level:	4
Learner Name:			

Questions	Model Answers
1. Taking into account your specific environment, compile a one year plan of how you will maintain the natural resources. The plan must co-incide with the production activities on the farm. The plan must indicate a: <ol style="list-style-type: none"> 1. Timeframe, 2. Activities, 3. Delegation of tasks. 	No definite answer, as it will differ from area to area.

Assessment Feedback Form

Comments / Remarks	
Feedback to learner on assessment and / or overall recommendations and action plan for competence:	
Feedback from learner to assessor:	
Assessment Judgement You have been found: <input type="radio"/> Competent <input type="radio"/> Not yet competent in this unit standard	Actions to follow: <input type="radio"/> Assessor report to ETQA <input type="radio"/> Learner results and attendance certification issued
Learner's Signature:	Date:
Assessor's Signature:	Date:
Moderator's Signature:	Date: