



NQF Level: 3

US No: 116225

Facilitator Guide

Primary Agriculture

Explain elementary animal nutrition



Facilitator:

Company:

Commodity: Date:

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agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA



Before you get started...

Dear Facilitator,

This Facilitator Guide (together with the relevant Learner Guide) is aimed at facilitators who will be assisting learners wishing to complete the following unit standard:

Title: Explain elementary animal nutrition
US No: 116225 NQF Level: 3 Credits: 5

This guide contains all necessary facilitation instructions to ensure that learners will attain the expected competencies required by the above-mentioned unit standard. This guide is designed to be used during the presentation of a learning session based on this unit standard. The full unit standard is attached at the end of the relevant Learner Guide. Learners are advised to read the unit standard at their time. Please discuss the unit standard with the learners to ensure that they understand what is expected from them to achieve the outcomes of the unit standard.

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

Title	ID Number	NQF Level	Credits	Mark
National Certificate in Animal Production	49048	3	120	<input type="checkbox"/>
National Certificate in Plant Production	49052	3	120	<input type="checkbox"/>

Please mark the learning program the learners are enrolled in:

Are you enrolled in a:	Y	N
Learnership?	<input type="checkbox"/>	<input type="checkbox"/>
Skills Program?	<input type="checkbox"/>	<input type="checkbox"/>
Short Course?	<input type="checkbox"/>	<input type="checkbox"/>

Note to Facilitator:

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

Please explain the above concepts to the learner.

There are three guides, namely the Learner Guide (with activities), Assessor Guide and the Facilitator Guide.

These guides have been developed to address specific aspects of the learning experience. You therefore need to use these guides complementally to one another.

Make this an enjoyable learning experience!

Context of Application ...

Primary Agriculture is a diverse sector and a wide range of commodities is being produced for both national and international market. Each commodity has its own production requirements and practices. You will be facilitating the learning process within a specific context where a specific agricultural commodity is being produced. The learning material has been written in a **generic** manner, as it is aimed to be available on national level and should be relevant to be applied within a variety of commodities. It is therefore inclusive of all agricultural commodities and crop in this field. Therefore, the examples that are being used in the materials may not always be applicable to your specific community, commodity, environment or region.

This presents you, the facilitator, with the challenge to **contextualise** the learning material. It is imperative that you, the Facilitator and Assessor interpret and present activities, case studies and projects related to the material in such a way that learners can easily identify and apply their knowledge within their own context. This will require from you to add examples of crop, which are applicable to the community or farm. Learners must be guided with examples from their own communities, commodities, environment or regions. This should be done by complementing the learning material with:

- Examples relevant to the commodity,
- Including commodity specific requirements,
- Including operating procedures of the farm,
- Including agricultural practice specific requirements,
- Agricultural markets,
- Guiding learners to write these specifics down in the learning guide, etc.

The contextualisation of the learning material is a very important step in preparing for and facilitating the learning experience and enough time and effort should be put into this exercise.

According to the qualifications mentioned on page 2, this module could be contextualised to fit the following groups of commodities:

Plant Production	Animal Production	
<ul style="list-style-type: none"> • Organic production, • Hydroponic production, • Perma-culture production, • Agronomy, • Horticulture, • Natural resources harvesting. 	<ul style="list-style-type: none"> • Small stock production, • Large stock production, • Dairy production, • Pig production, • Poultry production, • Game, • Aqua / mari culture, • Commercial insects • Animal fibres harvesting, • Bee keeping, 	<ul style="list-style-type: none"> • Natural resources harvesting, • Organic production, • Perma-culture production, • Eco/Agri Tourism, • Agro Chemicals, • Horse Breeding, • Etc.

How to use this guide ...

Throughout the guide information is given specifically aimed at you, the facilitator, to **assist** in the actual presentation of the learning material and/or facilitation of the learning process. Although this guide contains all the information required for attaining competency in this unit standard, references to additional resources, both printed and electronic, are provided for additional reference by the facilitator and further study by the learner.

Please note that the purpose of this information is merely to **guide** you, the facilitator, and is provided as a suggestion of possibilities. It remains the responsibility of every facilitator to re-assess the learner/s in each learning situation throughout the learning process in order to stay in touch with their specific learning needs. This should be the determining factor in the choice of the learning approach to follow.

Use the different boxes listed below for identification purposes:



Instructions regarding **activities**, whether group or individual activities will be described in this box.



Facilitators' Tip ...

My Notes ...
You can use this box for your own notes/comments.

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What & How will you be Facilitating?

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The Learning Experience...

On completion of this module, the learners will be able to:

- ◆ Demonstrate an understanding of the nutritional role of nutrient components.
- ◆ Identify specific feed ingredients.
- ◆ Demonstrate an understanding of the basic concepts of animal stimulation, maintenance and production in farm animals and how to apply feed to achieve this.
- ◆ Demonstrate the ability to prepare, produce and mix feed ingredients.
- ◆ Demonstrate an understanding of feed security.
- ◆ Identify and apply sensory indicators of quality in feed.
- ◆ Demonstrate the ability to interpret and apply correct measures for abnormal feeding behaviour.

Learners will also gain basic knowledge of:

- ◆ Basic comprehension and understanding of identification of groups of nutrients, ingredients and feeds in animal maintenance and production
- ◆ Identify feed ingredients
- ◆ Be able to maintain and operate feed processing machines
- ◆ Be competent in feed making and utilisation
- ◆ Be familiar with feed storage practices for maintaining security and quality
- ◆ Be aware of sensory indicators of good feed quality and spoiled feed
- ◆ Ability to interpret abnormal feeding behaviour and apply corrective measures

Learning Assumed to be in Place:

NQF 2: Understand animal nutrition.

- ◆ NQF 2: Operate and support a food safety agricultural supply chain.
- ◆ NQF 1: Maintain basic water quality.
- ◆ NQF 2: Explain external animal anatomy and morphology



Remember to do a diagnostic assessment of the learner's prior learning and ensure that they are starting at the correct level.

My Notes ...

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Learning Program Time Frames

	Total time allocated (hours)	Theoretical learning time allocated (hours)	Practical learning time allocated (hours)	Activities to be completed
Complete Program (including summative assessment)	50 hours	20 hours	30 hours	NA
Learner Orientation and "Ice Breaker"	2 hours	1 hour	1 hour	NA
Purpose, Introduction and Learner Directions	30 minutes	0	30 minutes	NA
Session 1	9 hours	4 hours	5 hours	1
Session 2	7 hours 30 minutes	3 hours	4 hours 30minutes	2
Session 3	9 hours	3 hours	6 hours	3
Session 4	9 hours	4 hours	5 hours	4
Session 5	9 hours	3 hours	6 hours	5
Preparation for Assessment & revision	4 hours	2 hours	2 hours	NA

Tips for level of learning



Remember the following before you get started:

Typically, a learning programme leading to the award of a qualification or unit standards at level 3 should develop learners who demonstrate an ability to:-

- Operate within clearly defined contexts.
- Work and learn within a managed environment.
- Actively contribute to team effectiveness.
- Take position on available information, discuss the issues and reach a resolution; produce a coherent presentation and report, providing explanations for positions taken.
- Summarise and interpret information relevant to the context from a range of sources.
- Use their knowledge to select appropriate procedures to solve problems within given parameters.
- Apply skills in measuring the environment using key instruments and equipment operational literacy and numeracy skills; use basic procedures and operations to complete complex tasks.
- Understand the organisational and operating environment as a system.
- Understand one or more fields or discipline's key concepts and knowledge, in addition to the fundamental areas of study.

Facilitator's Checklist & Training Aids

Learner support strategies:

Learners are supplied with all resources and aids as required by the programme – including:

- Objects & devices such as equipment, protective clothing, and safety gear, etc.
- Learner Guides and Learner Workbook
- Visual aids, etc.

Use this checklist below during your preparation to ensure that you have all the equipment, documents and training aids for a successful session.

Preparation:	Yes	No
Qualification Knowledge – I have familiarised myself with the content of the applicable qualification		
Unit Standard Knowledge – I have familiarised myself with the content of all aspects of the applicable unit standard		
Content Knowledge – I have sufficient knowledge of the content to enable me to facilitate with ease		
Application knowledge – I understand the programme matrix & have prepared for programme delivery accordingly		
Contextualisation – I have included information which is specific to the commodity and practices related to the commodity		
Ability to respond to learners background & experience –		

I have studied the learner demographics, age group, experience & circumstances & prepared for programme delivery accordingly		
Enthusiasm & Commitment – I am passionate about my subject & have prepared my programme delivery to create a motivating environment with real commitment to success		
Enterprise knowledge – I know & understand the values, ethics, vision & mission of the workplace & have prepared my programme delivery, reporting & administrative tasks accordingly.		
Equipment check:		
Learner guides x 1 per learner		
Assessment guides x 1 per learner		
Writing materials & stationary (facilitator & learner)		
White board & pens		
Flip chart paper		
Proxima projector & screen		
Laptop & programme disk		
Sample Hand-outs and examples of laws and other relevant documents		
Safety gear as prescribed by unit standard and applicable legislation		
Documentation checklist:		
Attendance Register		
Course Evaluation		
Learner Course Evaluation		
Portfolios of evidence		

Contextualisation of Content!

Go through this module and indicate what specific **information / activities / examples** should be included in this module?

Contextualisation	
<ul style="list-style-type: none"> Commodity specific? 	
<ul style="list-style-type: none"> Operating procedures of the farm? 	
<ul style="list-style-type: none"> Agricultural practices? 	
<ul style="list-style-type: none"> Agricultural markets? 	

Session

1

Nutrients and their role in body maintenance and production

**Learner Guide:
Page 7**

After completing this session, the learner should be able to:
SO 1: Demonstrate an understanding of the nutritional role of nutrient components
SO 3: Demonstrate an understanding of the basic concepts of animal stimulation, maintenance and production in farm animals and how to apply feed to achieve this

Concept SO 1 & SO 3	Time frame	Activities related to the concept
The various classes of nutrient components are described.	9 hours	Activity 1a & 1b
The origin of various classes of nutrient components is described.		
Nutrients required for different forms of animal production, stimulation and maintenance are explained.		
Components of basal metabolism (maintenance) are described.		
The ability to identify production output of animal species and how feed influences production is demonstrated.		
The utilization of feed to stimulate animals to improve is explained.		

My Notes ...

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Please allow learners to complete Activity 1a & 1b in their workbooks

Type of activity	Resources
1a. Individual exercise.	Learner guide and worksheets.
Instructions to give to the learners	
Activity 1a: Discuss the functions of the following nutrient compounds: <ul style="list-style-type: none"> ◆ Carbohydrates ◆ Lipids ◆ Proteins 	
Type of activity	Resources
1b. Individual exercise.	Learner guide and additional research materials.
Instructions to give to the learners	
Activity 1b: Draw up a list of sources that will give a feedlot manager balanced diet that incorporates all the above compounds.	

My Notes ...

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Session

2 Identify specific feed ingredients

**Learner Guide:
Page 18**

After completing this session, the learner should be able to:
SO 2: Identify specific feed ingredients

Concept (SO 2)	Time frame	Activities related to the concept
The ability to categorise and classify different ingredients is demonstrated.	7 hours 30 minutes	Activity 2
The sources of common ingredients are described.		
The ability to identify various common ingredients and their origins is demonstrated.		



Please allow learners to complete Activity 2 in their workbooks

Type of activity	Resources
2. Field trip and research.	Information on nutrients, co-operative and supervisor.
Instructions to give to the learners	
Go to the feed store of your local co operative and identify the different concentrates found. Obtain nutritional information on each concentrate and discuss it with the rest of the group.	

My Notes ...

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Session

3 Prepare, produce and mix feed ingredients

**Learner
Guide:
Page 22**

After completing this session, the learner should be able to:
SO 4: Demonstrate an understanding of feed security
SO 5: Demonstrate the ability to prepare, produce and mix feed ingredients.

Concept SO 4 & SO 5	Time frame	Activities related to the concept
Identification, maintenance and operation of machines and equipment required to process feed are demonstrated	9 hours	Activity 3
The setting up of machines and equipment and supply of components for the production of specific feed		
The importance of the correct preparation of feed ingredients according to instructions and recipes		
The optimal stages of feed ingredients		
Various recipes and processes required		
The various feeds and variations of feed ingredients used to manufacture feeds		
The ability to identify possible causes of		
Measures to counter each possible source of losses are described		

Systems, procedures and controls to prevent the loss of feed are described		
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Please allow learners to complete Activity 3 in their workbooks

Type of activity	Resources
3. Report writing	Learner guide, stationary, worksheets and research materials on animal feed.
Instructions to give to the learners	
Pellets are a very popular way to feed most farm animals today. Please write a report on its suitability for this purpose and incorporate the following in your answer. <ul style="list-style-type: none"> • Storage • Spoilage • Waste • Contamination • Stock control • Preservation 	

My Notes ...

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4 Feed quality assessment

Session

**Learner
Guide:
Page 28**

After completing this session, the learner should be able to:
SO 6: Identify and apply sensory indicators of quality in feed.

Concept SO 6	Time frame	Activities related to the concept
Sensory evaluations of positive quality and optimal composition of feeds are demonstrated.	9 hours	Activity 4
Sensory signs of spoilage in feed are		
Various methods of evaluating quality in feeds are demonstrated.		



Please allow learners to complete Activity 4 in their workbooks

Type of activity	Resources
4. Practical assessment and report writing.	Learner guide, worksheets and facilities.
Instructions to give to the learners	
Go to the storage facility on your farm and demonstrate the quality assessment of the various feedstuffs. Write a report on your findings.	

My Notes ...

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5 Abnormal feeding behaviour

Session

**Learner
Guide:
Page 30**

After completing this session, the learner should be able to:
SO 7: Demonstrate the ability to interpret and apply corrective measures for abnormal feeding behaviour.

Concept SO 7	Time frame	Activities related to the concept
Symptoms of normal feeding behaviour are described.	9 hours	Activity 5
Symptoms of abnormal feeding behaviour are described.		
The possible causes are described.		
The corrective measures to be applied to various forms of abnormal feeding behaviour are demonstrated.		



Please allow learners to complete Activity 5 in their workbooks

Type of activity	Resources
5. Field trip, observation and report writing.	Feed lot, learner guide and worksheets.
Instructions to give to the learners	
Visit a feedlot and during feeding time and observe the animal behaviour. Incorporate the following concepts. <ul style="list-style-type: none"> • Competition • Feeding space • Drinking of water • Feeding duration Find the correlation between these concepts and write a report to describe in detail what happened at feeding time. Why do some animals feed more than others?	

What will I do differently next time?

Take some time to **reflect** on your own activities as facilitator of this Unit Standard. Then write down five of the most important lessons you have learnt and include a motivation:

What will I do differently next time?	Motivate how or why (Give examples, reasons, etc.)
1.	
2.	
3.	
4.	
5.	

As facilitator, you have hands on experience in the application of the unit standard. And you might experience difficulties with the unit standard that the developers did not anticipate. Also, the unit standard will be revised at the end of the registration period. Your comments below can be an important contribution in the revision process and should be brought to the attention of either the AgriSETA ETQA manager or the SGB chairperson.

Please take some time to reflect on your experience and list a few of the difficulties you had to address.

Difficulties I had with the Unit Standard	Recommended Changes to Address the Difficulty
6.	
7.	
8.	
9.	
10.	

