

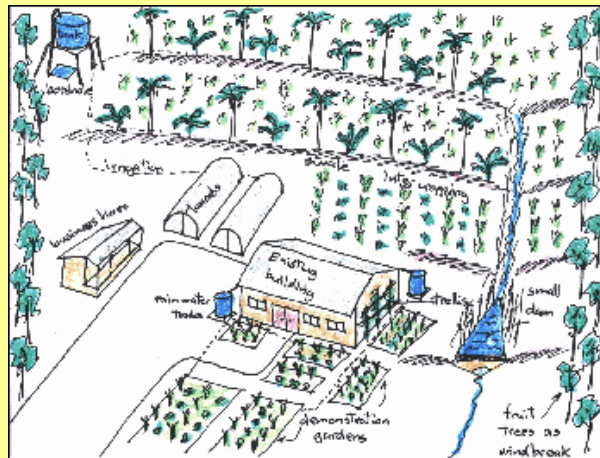


NQF Level: 1 US No: 116172

Facilitator Guide

Primary Agriculture

Elementary farm layout and infrastructure



Facilitator:

Company:

Commodity: Date:

The availability of this product is due to the financial support of the National Department of Agriculture and the AgriSETA. Terms and conditions apply.



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: Apply elementary farm layout and infrastructure.
US No: 116172 NQF Level: 1 Credits: 2

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 this guide as well as 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	48976	2	120	<input type="checkbox"/>
National Certificate in Mixed Farming Systems	48971	2	120	<input type="checkbox"/>
National Certificate in Plant Production	48972	2	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 four guides, namely the Learner Guide, the Learner Workbook, the 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, • Permaculture 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:

- ◆ Apply basic physical farm layout tasks, including the construction of infrastructure for the specific farm system, environment and enterprise.

Learners will specifically be able to:

- ◆ Recognise veld, planted pasture and arable land, and understand the need to fence vegetation types separately.
- ◆ The animal life, the impact of farm animals and humans are recognised and the need for the conservation of related natural resources in the layout of the farm is understood.
- ◆ The need to plan the farm and infrastructure to limit the impact on natural resources and ensure sustainable resources use are recognized.
- ◆ Construct prevention structures and elementary infrastructure as planned for farm layout.

Learners will also gain basic knowledge of:

- ◆ Sustainable land-use practices and soil erosion prevention measures
- ◆ Infrastructure applications and soil erosion prevention measures that are fully functional and those that have minor faults, and
- ◆ Reporting procedures.
- ◆ Minor repairs to infrastructure applications.
- ◆ Soil erosion prevention measures.

Learning Assumed to be in Place:

- ◆ Understand how sustainable farming systems conserve natural resources (NQF Level 1) or equivalent.
- ◆ Demonstrate an understanding of the basic concepts of sustainable farming systems (NQF Level 1)



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)	20 hours	4 hours 30 min	15 hours 30 min	
Learner Orientation and "Ice Breaker"	30 min	15 min	15 min	
Purpose, Introduction and Learner Directions	45 min	15 min	30 min	
Session 1	3 hours	1 hour	2 hours	1-2
Session 2	4 hours	1 hour	3 hours	3
Session 3	4 hours	1 hour	3 hours	4
Session 4	6,5 hours	30 min	6 hours	5
Session 5	1 hour 15 min	30 min	45 min	
Preparation for Assessment & revision	1 hour			

Tips for level of learning



Remember the following before you get started:

This unit standard is aimed at level 1 learners.

- ◆ A typical level 1 learner might be exposed to the world of work through this learning program for the first time.
- ◆ Explain concepts and define words in a simple, clear and concise method throughout the learning program to help the learner where possible.
- ◆ Take special care to facilitate for ALL learners. Allow them opportunities to share experiences, prior knowledge, translate into their mother tongue for each other and enjoy the learning process.
- ◆ The examples given in this resource guide might be for a different geographical area or commodity to what the learner is exposed to – please adapt your examples accordingly.

Facilitator's Checklist & Training Aids

Learner support strategies:
<p>Learners are supplied with all resources and aids as required by the programme – including:</p> <ul style="list-style-type: none"> ▪ Objects & devices such as equipment, protective clothing, 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 and stationary (facilitator & learner)		
White board and pens		
Flip chart paper		
Proxima projector & screen		
Laptop & programme disk		
Sample Hand-outs and examples of laws and other relevant documents, specifically the following: <ul style="list-style-type: none"> • Alien and indigenous plant materials • Map of the farm 		

• Details of the farm as per learner activities		
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 Plant and other resources on a farm

Learner Guide:
Page 6

After completing this session, the learner should be able to:
SO 1: Recognise veld, planted pasture and arable land, and understand the need to fence vegetation types separately.

Concept (SO 1)	Time frame	Activities related to the concept
Identify the natural resources on the farm	3 hours 1 hour theory 2 hours practical activity	Activity 1 Activity 2
Identify the weeds and invasive plants on the farm		
Identify structures that can be built to conserve natural resources		



Provide the learners with a theoretical overview of plant and other resources on the farm. You will have to have background information about the local ecology and be familiar with the farm. It is important to use the context where learning takes place to provide the learners with a thorough understanding of WHY specific things are placed in a particular area. For example, the farmhouse is likely to be placed close to a water source but not in prime productive land. Cattle are kept away from rivers except in controlled conditions. Point out that their observations will both raise questions and provide answers to basic infrastructure issues.

If the farm is too large to do this exercise over the whole farm, select an appropriate section of the farm that would enable the learners to encounter the necessary exposure.



Please allow learners to complete Activity 1 in their workbooks

Type of activity	Resources
Written questionnaire	Learner Workbook
Instructions to give to the learners	
<p>We have already learnt some important things about how to choose a farming enterprise, what to farm with and how to make sure that our agri-business is a sustainable one. Answer the questions below to help you recall and/or reflect on some of the knowledge and skills that you already have.</p>	
Conclusions	
<p>This activity enables the facilitator to gain some idea of how much learners already know and therefore which areas need particular focus. If the facilitator is familiar with the group and knows that the learners have already had considerable exposure to these concepts in a previous skills course then this activity can be used for summative assessment instead.</p>	



Please allow learners to complete Activity 2 in their workbooks

Type of activity	Resources
Create a map or model of the farm Written questions	Learner Workbook, large piece of cardboard, glue, maché
Instructions to give to the learners	
<p>In your group decide if you wish to make a model or a map. You will be using the same map or model for other activities.</p> <ul style="list-style-type: none"> Take a large piece of cardboard (as given to you by your facilitator), and work as a group on this project. You will be working on this same piece of paper through out the project and adding information as you decide on it. Draw the outline of your farm on the piece of cardboard or paper provided by the facilitator. If possible, use an existing map to ensure as much accuracy as possible. Walk around your farm and collect the following information to add to the map or model: <ul style="list-style-type: none"> The slope elevation and directions (north, south, east, west) of the farm. Use any materials or symbols that you wish to represent the information you have gathered on your map or model. For example, you can use paper to create slopes, or you could use piles of stones to represent high ground. Place it on top of the original piece of paper. Use the information gathered to answer the questions. 	
Conclusions	
<p>The facilitator would have to source the appropriate materials for making a model. It may be simpler to make a map, and simpler yet to begin with an existing, simplified map. If the learners struggle with the concept of mapping, make a rough map on a piece of flip chart paper to show the learners how to do it.</p> <p>The important skills for the learners to gain are how to record their findings on a map.</p>	

Session

2 Exploring conservation within the layout of a farm

Learner Guide:
Page 8

After completing this session, the learner should be able to:
SO 2: The animal life, the impact of farm animals, and humans, are recognised and the need for conservation of related natural resources in the layout of a farm is understood.

Concept (SO 2)	Time frame	Activities related to the concept
The main animal and/or livestock species occurring on a farm	<p>4 hours</p> <p>1 hour theory</p> <p>3 hours practical</p>	<p>Activity 3</p> <p>Looking a the farm's natural resources, plants, animals and water</p>
The need to care for or control the animals that occur		
Structures that should be erected and maintained in order to conserve the natural resources of a farm		
The reciprocal effect of the natural environment, animals and humans in the use of structures and that this should not lead to degradation		



Provide the learners with a theoretical overview as per the Learner Guide.



Please allow learners to complete Activity 3 in their workbooks

Type of activity	Resources
Group excursion on the farm Written questions	Maps/models created in Activity 2
Instructions to give to the learners	
<p>This is a group activity that requires the collection of data that must be added to the learners' map or model. If the farm is large, this may be time-consuming and it would be advisable to plan for this.</p> <p>Look at the farm and divide it up into natural areas that are distinctly separate from each other, using the following list as a guideline:</p> <p>Highest ground, lowest ground, water courses, fields (if the farm has already been developed), pastures, woodlands, grasslands, wilderness area, access routes.</p> <p>For each of these areas collect samples, such as soil, plants, evidence showing the presence of animals (either domestic or wild, as appropriate) to add this information to the map or model. The facilitator must provide the learners with research resources to help them identify alien plants.</p> <p>Learners use the information collected to answer the questions in the Learner Workbook:</p>	
Conclusions	
<p>Once the learners have completed this activity they should have a very good idea of what resources are available on the farm. It is also quite possible that as a result of doing this they begin to recognise signs of degradation.</p>	

My Notes ...

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Session

3 Planning the infrastructure for sustainability

Learner Guide:
Page 23

After completing this session, the learner should be able to:
SO 3: The need to plan the farm and infrastructure to limit the impact of natural resources and ensure sustainable resource use is recognised.

Concept (SO 3)	Time frame	Activities related to the concept
The reciprocal effect of the natural environment, animals and humans, in terms of the impact on natural resources and sustainable resource use	4 hours 1 hour theory	Activity 4
The placement of structures so as not to lead to degradation of the environment over time	3 hours practical	



Provide the learners with a theoretical overview as per the Learner Guide. It would help to focus on the farm where learning takes place. From the field study done in the two previous activities the learners are likely to have gained considerable ideas and questions related to this session. It would enrich their learning experience considerably to build on this experience.

My Notes ...

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Please allow learners to complete Activity 4 in their workbooks

Type of activity	Resources
Group excursion on the farm to identify infrastructure Written questions	Maps/models created in Activity 3
Instructions to give to the learners	
<p>This is a group activity during which you will walk around the farm in your group and consider the following:</p> <ul style="list-style-type: none"> • The structures that exist on the farm, • The purpose for which these structures were erected, and • Why the structures were put in that specific place. <p>Once you are back in the classroom, add the structures you have found to your map or model and answer the questions in the workbook.</p>	
Conclusions	
<p>This is the final information-gathering exercise. From this point the learners should have a clear understanding of the natural resources, infrastructure and structures on the farm. Ideally the facilitator should be using every available teachable moment to enrich the learning process – this is determined by the context itself.</p>	

My Notes ...

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Session

4 Constructing preventative measures

Learner Guide:
Page 26

After completing this session, the learner should be able to:
SO 4: Construct prevention measures and elementary infrastructure as planned for farm layout

Concept (SO 4)	Time frame	Activities related to the concept
Measure and construct elementary structures	6.5 hours	Activity 5
Place elementary structures so that conservation of resources is achieved		
The purpose for stabilising elementary structures to achieve conservation of resources		



It is important for the facilitator to identify the most appropriate activities for this session. This could be any of those listed in the Learner Workbook.

It is not possible to draw up specific instructions for these activities, as they will vary from site to site. If the activities include repairs, speak to the person on the staff responsible for this to see how you can best use the learning opportunity.

One possibility in order to make the most of the time constraints is to use a co-operative learning process. Choose the three or four concepts that will be taught. Use a subject-matter-expert to teach the first group about the concept. That group is then responsible for teaching everyone else in the group their concept.

My Notes ...

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Please allow learners to complete Activity 5 in their workbooks

Type of activity	Resources
Group demonstrations	To be completed by the facilitator.

Instructions to give to the learners

(This area is intentionally left blank for the facilitator to provide instructions to learners.)

Conclusions

(This area is intentionally left blank for recording conclusions.)

Session

5 Maintain preventative structures and report major problems

**Learner
Guide:
Page 28**

After completing this session, the learner should be able to:
SO 5: Maintain prevention structures and report major problems to a supervisor

Concept (SO 5)	Time frame	Activities related to the concept
Identify and deal with minor degradation and/or erosion problems	1.5 hours	Integrated with Activity 5
Identify the appropriate reporting procedure for minor degradation and/or erosion problems		
Identify elementary maintenance tasks associated with structures		



It is important for the facilitator to identify the most appropriate activities for this session. This could be any of those listed in the Learner Workbook.

It is not possible to draw up specific instructions for these activities as they will vary from site to site. If the activities will include repairs, speak to the person on the staff responsible for this to see how you can best use the learning opportunity.

Find out what the fault reporting procedure is on the farm and use the documents on the farm to guide the activity.

My Notes ...

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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.	