



NQF Level: 3

US No: 116269

Facilitator Guide

Primary Agriculture

Supervise the Collection of Agricultural Data

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: Supervise the Collection of Agricultural Data
US No: 116269 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 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 Plant Production	49048	3	120	<input type="checkbox"/>
National Certificate in Animal 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 four guides, namely the Learner Guide, 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, • 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...

When you have achieved this unit standard, you will be able to:

- ◆ Supervise the collection and collation of data in a range of contexts in the agricultural sector.
- ◆ Recognise, interpret and report on a range of deviations in data collection processes.
- ◆ Be well positioned to extend their learning and practice into other areas of information management and dissemination in the agricultural sector.
- ◆ Understand the purpose behind data collection and contribute to the general standards applied in the sector by contributing to best practices in information gathering.
- ◆ Understand the importance of the application of business principles in agricultural production, with specific reference to information systems and technology.

Learners will specifically be able to:

- ◆ Ensure that data collected correctly.
- ◆ Ensure that the equipment and tools required for data collection are on hand.
- ◆ Ensure that collated data and reports are submitted as required.
- ◆ Ensure that the required health and safety regulations are followed.

Learners will also gain basic knowledge of:

- ◆ A range of data collection methods and their application.
- ◆ A range of data collation tools, including basic computer literacy.
- ◆ The National Occupation, Health and Safety Act.
- ◆ The need for collecting agricultural data.
- ◆ The purpose of the data within the enterprise.
- ◆ The purpose of learning about Information technology.
- ◆ Different methods of data collection.
- ◆ Different methods of recording data.
- ◆ Different methods of presenting data.
- ◆ The names and functions of data collection tools and equipment.
- ◆ The descriptions and properties of the source of the data being collected.

- ◆ The description and properties of the data collection equipment.
- ◆ Sensory cues related to the measurement of the data, the data collection equipment and the source of the data.
- ◆ The purpose of the data being collected.
- ◆ All relevant rules, laws and regulations related to the source of the data and the data itself.
- ◆ The relationship between the data and information generated by it.

Learning Assumed to be in Place:

It is assumed that a learner attempting this unit standard will show competence against the following unit standards or equivalent:

- ◆ NQF 2: Monitor, Collect and Collate Agricultural Data.
- ◆ NQF 2: Recognise and identify the basic functions of the ecological environment.



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

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 this level should develop learners who demonstrate an ability to:-

- Work and learn in a disciplined manner in a well-structured and supervised environment.
- Manage their time effectively.
- Develop sound working relationships and an ability to work effectively as part of a group.
- Express an opinion on given information clearly in spoken and written form.
- Collect, organise and report information clearly and accurately.
- Use their knowledge to select and apply known solutions to well-defined routine problems.
- Use a variety of common tools and instruments; apply literacy and numeracy skills to a range of different but familiar contexts.
- Understand the environment within which he/she operates in a wider context.
- Gain knowledge of one or more areas or fields of study, in addition to the fundamental areas of study.

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	11 hours	39 hours	4
Learner Orientation and "Ice Breaker"	1 hour	30 minutes	30 minutes	N/A
Purpose, Introduction and Learner Directions	2 hours, 30 minutes	1 hour	1 hour, 30 minutes	N/A
Session 1	11 hours 30 minutes	2 hours	30 minutes 1 hour 8 hours practical experience	1 – 2
Session 2	9 hours	2 hours	1 hour 6 hours practical experience	3
Session 3	14 hours, 30 minutes	3 hours, 30 minutes	1 hour, 30 minutes 1 hour 30 minutes 8 hours practical experience	4 – 6
Session 4	10 hours	2 hours	1 hour 7 hours practical experience	7
Preparation for Assessment & revision	1 hours, 30 minutes	N/A	1 hours, 30 minutes	N/A

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 & 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? 	

Agricultural Data Collection – an Introduction

■ What kinds of data do we collect?

- ◆ Occurrence of pest and disease infestations.
- ◆ Weather and climatic information – year on year.
- ◆ Rainfall & Soil sample data.
- ◆ Costs of agricultural inputs.
- ◆ Prevailing economic conditions in the sector, country and internationally.
- ◆ Production costs per crop.
- ◆ Soil and fertilisation costs and applications.
- ◆ Pest and Weed Control application programs and statistics.
- ◆ Profit margins per cultivar / per crop / per block / per orchard / per Hectare.

■ The reasons why we would collect Agricultural Data

Patterns of the environment include rainfall, climate, dry cycles, original vegetation, seasons, movement patterns of animals, etc. Processes of the biophysical environment include the interaction and the relationship between food webs, human activities, soil, climate, water, plants, animals and solar energy.

It is always useful to have detailed records and data in order to ensure that we make optimum decisions in order to maximise profits, production and quality, whilst keeping risks and problems to a minimum.

My Notes ...

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Session

1 Ensure the correct collection of data

**Learner Guide:
Page 9**

After completing this session, the learner should be able to:
SO 1: Ensure that data is collected correctly.

Concept (SO 1)	Time frame	Activities related to the concept
A range of methods for routine data collection is identified.	30 minutes 1 hour 8 hours practical experience	Activity 1 and 2
The correct use of data collection methods in a specific context is demonstrated.		
The collection of data is closely monitored and anomalies are identified.		
Collated data is recorded and reported appropriately.		
Problems related to accuracy and faulty equipment is recognised, and minor repairs or adjustments are made.		



Please allow learners to complete Activity 1 in their Learner Guides

Type of activity	Resources
1. Complete the table	Learner Guide
Instructions to give to the learners	
Complete the table on the different elementary methods of data collection in Agriculture.	

Session

2 Required equipment and tools for data collection are on hand

Learner Guide:
Page 24

After completing this session, the learner should be able to:
SO 2: Ensure that the equipment and tools required for data collection are on hand.

Concept (SO 2)	Time frame	Activities related to the concept
The equipment and tools required for different data collection processes are identified.	1 hour 6 hours practical experience	Activity 3
The required tools and equipment are on hand.		
Tools and equipment are handed out to task teams.		
Tools and equipment are tested on return and, if necessary, minor repairs are described.		
Faulty equipment that requires specialist repairs are reported and dispatched according to policy.		



Please allow learners to complete Activity 3 in their Learner Guides

Type of activity	Resources
3. Example and describe	Learner Guide, examples of faulty equipment
Instructions to give to the learners	
<p>The learner should be updated with all collection methods appropriate for specific data sets and be able to identify the collecting tools for a specific task. The learner should also be able to report on faulty equipment and organize to repair equipment if necessary.</p> <p>The learner should use an example and describe how he or she would select the appropriate tools to collect a specific data set. The learner should include the steps that he/she would take to repair faulty equipment.</p>	

3 Submit collated data and reports

Session

**Learner
Guide:
Page 28**

After completing this session, the learner should be able to:
SO 3: Ensure that collated data and reports are submitted as required.

Concept (SO 3)	Time frame	Activities related to the concept
Data is collected and assessed for accuracy.	1 hour, 30 minutes	Activity 4, 5 and 6
Collated data is transcribed into the required report format.	1 hour	
Elementary deviations in data are investigated and explained.	30 minutes	
Accurate data reports are submitted as required.	8 hours practical experience	



Please allow learners to complete Activity 4 in their Learner Guides

Type of activity	Resources
4. Individual task	Learner Guide
Instructions to give to the learners	
Revise the methods for reporting on data within your own context. Discuss examples how you would ensure the accuracy of the data collection plan, and how one could explain any deviations or irregularities in the data set.	



Please allow learners to complete Activity 5 in their Learner Guides

Type of activity	Resources
5. Work in a group	Learner Guide
Instructions to give to the learners	
The learner should complete the possible reasons for inaccurate data in his/her own context in a brainstorming session. The learner should use examples how he/she will present a report in his/her own context.	

4 Required health and safety regulations are followed

Session

Learner Guide:
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After completing this session, the learner should be able to:

SO 4: Ensure that the required health and safety regulations are followed.

Concept (SO 4)	Time frame	Activities related to the concept
Health and safety standards relevant to the method of data collection are identified and explained.	1 hour 7 hours practical experience	7
The required protective garments and equipment are on hand and in good working order.		
The required protective garments and equipment are used in the field.		
The appropriate hygiene and safety measures are applied throughout the process of collection.		



Please allow learners to complete Activity 7 in their Learner Guides

Type of activity	Resources
7. Answer the questions and complete the table	Learner Guide
Instructions to give to the learners	
<p>A learner doing this specific outcome should be able to identify and explain the health and safety issues of importance and be able to ensure the application of these issues within the workplace.</p> <p>Discuss with the learners their own context of workplace and ask them to briefly make short notes of safety in their own context in order to complete the questions asked in the table under Activity 7.</p>	

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.	