



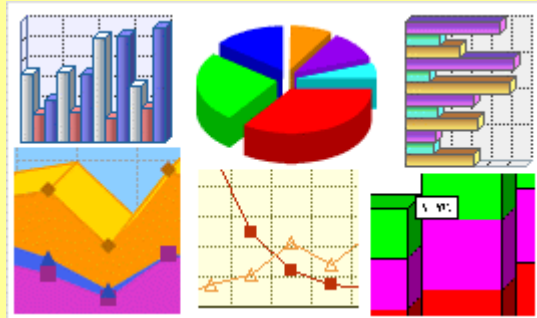
NQF Level: 2

US No: 9009

# Facilitator Guide

## Primary Agriculture

### The use of statistics & probability to investigate life related problems



Facilitator: .....

Company: .....

Commodity: ..... Date: .....

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



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:

<b>Title:</b>	Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems		
<b>US No:</b>	<b>9009</b>	<b>NQF Level:</b>	<b>2</b>
		<b>Credits:</b>	<b>3</b>

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	48976	2	120	<input type="checkbox"/>
National Certificate in Mixed Farming Systems	48977	2	120	<input type="checkbox"/>
National Certificate in Plant Production	48975	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 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"> <li>• Organic production,</li> <li>• Hydroponic production,</li> <li>• Perma-culture production,</li> <li>• Agronomy,</li> <li>• Horticulture,</li> <li>• Natural resources harvesting.</li> </ul>	<ul style="list-style-type: none"> <li>• Small stock production,</li> <li>• Large stock production,</li> <li>• Dairy production,</li> <li>• Pig production,</li> <li>• Poultry production,</li> <li>• Game,</li> <li>• Aqua / mari culture,</li> <li>• Commercial insects</li> <li>• Animal fibres harvesting,</li> <li>• Bee keeping,</li> </ul>	<ul style="list-style-type: none"> <li>• Natural resources harvesting,</li> <li>• Organic production,</li> <li>• Perma-culture production,</li> <li>• Eco/Agri Tourism,</li> <li>• Agro Chemicals,</li> <li>• Horse Breeding,</li> <li>• Etc.</li> </ul>

## 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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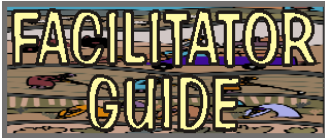
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Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems

5

Primary Agriculture

NQF Level 2

Unit Standard No: 9009

# 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 various techniques to organise and represent data in order to model situations for specific purposes.
- ◆ Give opinions on the implications of the modeled data for the required purpose.

Learners will specifically be able to:

- ◆ Identify issues suited to resolution by basic statistical methods.
- ◆ Work with existing data.
- ◆ Generate statistics through the use calculators and other available technology.
- ◆ Represent data in the form of tables, charts and graphs.
- ◆ Use statistics and representations of data to
- ◆ Summarise real-life and or work related issues within the experience of the learner.
- ◆ Give opinions on statistics and representations of data.
- ◆ More detailed range statements are provided for specific outcomes and assessment criteria as needed.

Learners will also gain basic knowledge of:

- ◆ Methods for selecting, organizing data and calculating statistics
- ◆ The meaning of concepts such as centre and spread
- ◆ Techniques for representing and drawing conclusions from statistics.

### 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 1: Mathematics and Communications



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)	30 hours	14 hours	15 hours	1 – 3
Learner Orientation and "Ice Breaker"	30 minutes			N/A
Purpose, Introduction and Learner Directions	30 minutes			N/A
Session 1	16 hours	8 hours	8 hours	1 – 2
Session 2	10 hours	5 hours	5 hours	3
Preparation for Assessment & revision	3 hours	1 hour	2 hours	N/A

## 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 2 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.

# Facilitator's Checklist & Training Aids

<b>Learner support strategies:</b>
<p><b>Learners are supplied with all resources and aids as required by the programme – including:</b></p> <ul style="list-style-type: none"> <li>▪ Objects &amp; devices such as equipment, protective clothing, safety gear, etc.</li> <li>▪ Learner Guides and Learner Workbook</li> <li>▪ Visual aids, etc.</li> </ul>

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

<b>Preparation:</b>	<b>Yes</b>	<b>No</b>
<b>Qualification Knowledge</b> – I have familiarised myself with the content of the applicable qualification		
<b>Unit Standard Knowledge</b> – I have familiarised myself with the content of all aspects of the applicable unit standard		
<b>Content Knowledge</b> – I have sufficient knowledge of the content to enable me to facilitate with ease		
<b>Application knowledge</b> – I understand the programme matrix & have prepared for programme delivery accordingly		
<b>Contextualisation</b> – I have included information which is specific to the commodity and practices related to the commodity		
<b>Ability to respond to learners background &amp; experience</b> – I have studied the learner demographics, age group, experience & circumstances & prepared for programme delivery accordingly		
<b>Enthusiasm &amp; Commitment</b> – I am passionate about my subject & have prepared my programme delivery to create a motivating environment with real commitment to success		
<b>Enterprise knowledge</b> – I know & understand the values, ethics, vision & mission of the workplace & have prepared my programme delivery, reporting & administrative tasks accordingly.		
<b>Equipment check:</b>		
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		
<b>Documentation checklist:</b>		
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"> <li>Commodity specific?</li> </ul>	
<ul style="list-style-type: none"> <li>Operating procedures of the farm?</li> </ul>	
<ul style="list-style-type: none"> <li>Agricultural practices?</li> </ul>	
<ul style="list-style-type: none"> <li>Agricultural markets?</li> </ul>	

Session

# 1 Techniques to organize and represent data

Learner Guide:  
Page 7

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

**SO 1: Apply various techniques to organise and represent data in order to model situations.**

Concept (SO 1)	Time frame	Activities related to the concept
Questions about sets of data that can be dealt with through statistical methods are identified correctly.	<b>16 Hours</b>	<b>Activity 1-2</b>
Existing tables are understood correctly through a proper application of row and column headings.		
Raw data or statistics in the body of tables are used correctly.		
Effective methods to record and organise data are used to solve problems.		
Calculations of statistics are correct.		
Appropriate statistics are used to answer questions.		
Scales used in graphical representations and tables are consistent with the data, are correct, clear and appropriate to the situation and target audience.		



Session

# 2 Implications resulting from modeled data

Learner Guide:  
Page 30

After completing this session, the learner should be able to:  
**SO 2: Give opinions on the implications of the modeled data for the required purpose.**

Concept (SO 2)	Time frame	Activities related to the concept
Verbal (written or oral) explanation of findings is based on the representation of the data.	hours	Activity 3
Trends, group profiles and attitudes are justified.		
Appropriate information is extracted from representations in order to answer questions.		



Please allow learners to complete Activity 3 in their Learner Guides

Type of activity	Resources
3. Individual Activity	Learner Guide, oral instruction
Instructions to give to the learners	
Complete the activity in your learner guide.	

# 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.	