

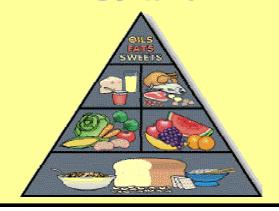
NQF Level: 2

Facilitator Guide

US No: 116070

Primary Agriculture

Operate and
Support a Food
Safety and Quality
Management
System in the
Agricultural Supply
Chain



Facilitator:	
Company:	
Commodity:	Date:

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Operate and support a food safety and quality management system in the agricultural supply chain

Primary Agriculture

NQF Level 2

Unit Standard No: 116070

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: Operate and support a food safety and quality management system in the

agricultural supply chain

US No: 116070 NQF Level: 2 **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 Plant Production	48975	2	120	
National Certificate in Animal Production	48976	2	120	
National Certificate in Mixed Farming Systems	48977	2	120	

Please mark the learning program the learners are enrolled in:

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

Please explain the above concepts to the learner.

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.

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!





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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,

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- 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	
 Organic production, Hydroponic production, Perma-culture production, Agronomy, Horticulture, Natural resources harvesting. 	 Small stock production, Large stock production, Dairy production, Pig production, Poultry production, Game, Aqua / mari culture, Commercial insects Animal fibres harvesting, Bee keeping, 	 Natural resources harvesting, Organic production, Perma-culture production, Eco/Agri Tourism, Agro Chemicals, Horse Breeding, Etc.

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





What & How will you be Facilitating?

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The Learning Experience...

On completion of this unit standard, learners will be able to:-

- Monitor and support the implementation of food safety and quality, production, environmental and social practices and awareness within the agricultural supply chain.
- Gain an understanding of sustainable agricultural practices as applied in the animal-, plant and mixed farming sub fields. The application of food safety in primary agriculture is focussed on in this unit standard.
- Participate in, undertake and plan farming practices with knowledge of their environment. A culture of maintenance and care will be instilled for both the environment as well as towards farming infrastructure and operations.

Learners will specifically be able to:

- Apply basic food safety practices.
- Illustrate basic knowledge to distinguish and report non-conformances and deviations in food safety, quality and the environment with reference to the agricultural enterprise.
- Understanding basic health and social issues in the agricultural environment.
- ♦ Demonstrate an understanding of risk factors in food safety and quality related to the agricultural supply chain.
- ♦ Demonstrate basic understanding of record keeping activities on the farm.

Learners will also gain a basic knowledge and understanding of:

- Basic principles of different regulations, requirements and regulatory aspects with reference to the agricultural enterprise are understood.
- Good agricultural / manufacturing / processing/health practices.
- Standard operation procedures on the farm.
- ♦ Food borne illnesses.
- Impact of food safety and quality in trade.
- Contamination risks.
- Contamination preventative measures.

- Risk factors related to food safety.
- Principles of food safety and quality.
- Basic principles of environmental and conservation management.
- Basic principles of waste and pollution management.
- Understanding basic health and social issues in the agricultural environment.
- Demonstrate an understanding of risk factors in food safety and quality related to the agricultural supply
- Demonstrate basic understanding of record keeping activities on the farm.





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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:



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

 NQF 1: Recognise pests and diseases and weeds on crops.

♦ NQF 1: Apply basic food safety practices.

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.

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- 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.

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- 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.



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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	7 hours 45 minutes	12 hours 15 minutes	0
Learner Orientation and "Ice Breaker"	30 minutes	15 minutes	15 minutes	Ice breaker
Purpose, Introduction and Learner Directions	1 hour	30 minutes	30 minutes	Learner Guide
Session 1	3 hours	1 hour	2 hours	1 – 4
Session 2	2 hours	1 hour	1 hour	5
Session 3	4 hours	1 hour 30 minutes	2 hours 30 minutes	6 – 8
Session 4	3 hours	1 hour	2 hours	9 – 10
Session 5	3 hours	45 minutes	2 hours 15 minutes	11
Preparation for Assessment & revision	3 hours	1 hour 30 minutes	1 hour 30 minutes	Practise
Assessment per learner	30 minutes	15 minutes	15 minutes	Summative and Practical Assessment





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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, safety gear, etc.
- Learner Guides.
- 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		

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Preparation:		No
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		
Commodity specific?		
Operating procedures of the farm?		
Agricultural practices?		
Agricultural markets?		





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Food safety and quality management – An Introduction

Background

Any farm that is going to be producing a crop that will be utilised in big food chains in South Africa or exported needs to have all of its staff trained and able help in the process of food safety. To control and monitor a food safety process is beyond the ability of management alone. In this process, management will need the assistances of the staff at every level of the operation.

This will entail the following:

- High standard of training for staff in the importance of traceability.
- Full training in all the technical aspects carried out by the person.
- Full understanding of the OHSA .
- Personnel hygiene.
- Social issues.

To get a product to an overseas market usually requires many steps. At each step there will be an assessment and sampling of quality and food safety. Before an export agent will accept your product, there will be an audit conducted to establish compliance to Good Agricultural Practices.

The overseas standards are important because if you want to export you will have to meet these standards. As the overseas standards raise so the South African standards have to change to meet these standards.

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Apply basic food safety practices

Session

Learner Guide: Page 8

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

SO 1: Apply basic food safety practices.

Concept (SO 1)	Time frame	Activities related to the concept
Good personal hygiene practices are applied.		
Preventative measures against food contamination are applied.	3 hours	Activity 1 – 4
Warning signs regarding product safety are adhered to.		



Please allow learners to complete Activity 1 in their Learner Guides.

	Type of activity	Resources	
1.	Group work: Brainstorm as a group	Writing paper, Pens/ marker pens, Oral	
		instruction, Learner guide	
Instructions to give to the learners			
Hold	Hold a brainstorming session and write down what you think the advantages for a farmer might be,		
in te	in terms of applying good food safety practices and principles on their farm and in their pack house.		



- Explain brainstorming techniques to the learners and guide them to adhere to those principles.
- ♦ Encourage the learner to use examples from the practical environment.





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Please allow learners to complete Activity 2 in their Learner Guides.



	Type of activity	Resources	
2.	2. Role-play and discover	Writing paper, Pens/ marker pens, Oral	
	,,	instruction, Learner guide	
Tueburghians to sive to the Jermans			

Instructions to give to the learners

Divide the group into smaller groups of four. Play the roles of 4 different types of farm workers and explain to each other how your "type" of personal hygiene personality, might compromise food safety. Write down keynotes for yourself.



- ♦ Explain role-play techniques to the learners and guide them to adhere to those principles.
- Encourage learners so understand the implications of the roles they are assuming.
- ♦ Encourage the learner to use examples from the practical environment.



Please allow learners to complete Activity 3 in their Learner Guides.

Type of activity		Resources	
3.	Explore and discover:	Writing paper, Pens/ marker pens, Oral instruction, Learner workbook	
Instructions to give to the learners			

Walk around on the farm where you are completing your practical learning and make a list of at least 10 different types of waste that might potentially cause food safety to become compromised. Explain why, for each item on the list.



Please allow learners to complete Activity 4 in their Learner Guides.

Type of activity	Resources	
4. Hold a class discussion:	Writing paper, Pens/ marker pens, Oral	
	instruction, Learner guide	
Instructions to give to the learners		
Create an atmosphere were all learners will feel comfortable to participate. Guide the group to select a spokesperson, note taker and facilitator to guide and give structure to the discussion. Encourage		

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all learners to participate.

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Session

Non-conformances and deviations in food safety

Learner Guide: Page 29 After completing this session, the learner should be able to:

SO 2: Illustrate basic knowledge to distinguish and report nonconformances and deviations in food safety, quality and the environment with reference to the agricultural enterprise.

Concept (SO 2)	Time frames	Activities related to the concept
The way non-conformances and deviations in the food safety and quality will be detected is described.		
The way this problem will be traced to a pre-harvest environment is explained.		
The types of problems the enterprise can have on the environment if plans to deal with deviations are not in place are explained.	2 hours	5
The need for worker training with regards to detecting problems in the system and being able to trace it to the source is discussed.		



Please allow learners to complete Activity 5 in their Learner Guides

Type of activity		Resources	
5.	Explore and discover:	Writing paper, Pens/ marker pens, Oral	
		instruction, Learner guide	
	Instructions to give to the learners		

Walk around on the farm and make a list of at least 10 possible points where the Occupational Health and Safety and / or Food Safety policy of the farm is being deviated from or is not complied with. For each one write next to it, why you think the deviation took place and what can be done to rectify the problem.





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Basic health and social issues

Session

Learner Guide: Page 35 After completing this session, the learner should be able to:

SO 3: Understanding basic health and social issues in the agricultural environment.

Concept (SO 3)	Time frame	Activities related to the concept
The importance of good health care practices is explained.		
Good health care practices include but are not limited to HIV/AIDS, communicable diseases, good nutrition, drug abuse and dependency.		
A brief description of the OHSA and how it relates to the specific agricultural enterprise is given.	4 hours	Activity 6 – 8
The rights of the workers are described with regard to the OHSA and the specific agricultural enterprise.		
Basic record keeping and training of the workers are discussed with regard to the OHSA and social issues.		



Discuss with the learners that compliance and application of the Occupational Health And Safety Act is one of the corner stones in both record keeping and Good Agricultural Practices. The interrelation of the OHSA and the GAP needs to be brought across to the learners.

Issue the learners with a copy of the OHSA and then discuss how the worker has certain rights in the workplace.

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The importance of seeing social issues, communicable disease and workplace safety/food safety as interrelated is vital.

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Please allow learners to complete Activity 6 in their Learner Guides

Type of activity		Resources	
6. Interview an expert and gain knowledge		Writing paper, Pens/ marker pens, Oral instruction, Learner guide	
Produced to the death of the learning			

Instructions to give to the learners

Explain to the learners how this technique can be used to gain information. Read the instruction to the learners and explain the questions. "Interview one of the members of the health and safety committee and record answers to the your questions."



- ♦ Explain interviewing techniques to the learners and guide them to adhere to those principles.
- ♦ Explain the purpose of this technique as a form of gathering information and knowledge.
- Ensure that the learner understand the questions he/she should ask the supervisor so that they can be clear in the interview.



Please allow learners to complete Activity 7 in their Learner Guides.

Type of activity	Resources		
7. Explain in your own words	Writing paper, Pens/ marker pens, Oral		
21 Explain in your own words	instruction, Learner guide		
Instructions to give to the learners			
Read the instruction out load and ensure that the learner understand the question as well as the sensitivity regarding this issue.			



Debrief the learners around the concept that all happenings on a farm are directly related to GAP and that every occurrence must be recorded and filed. If there is a problem that needs to be traced to the source of occurrence then it is possible if all the records have been correctly filled in and filed in a systematic way that allows for easy access.

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Brief the learners that there is a exercise that they will need to complete that covers record keeping and its relationship to OHSA, GAP and health care.

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Rabies

Primary Agriculture

♦ Avian Flu

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Please allow learners to complete Activity 8 in their Learner Guides.

	Type of activity	Resources
8.	Role-play In pairs, role-play and explain the reasons why	Writing paper, Pens/ marker pens, Oral instruction, Learner guide

Instructions to give to the learners

Divide the learners into groups of two each. Ask each pair to choose one of the listed communicable diseases. Allow the learners some time to prepare themselves, to take notes and allow time for each pair to present to the rest of the group.

pair to present to the rest of the group.

♦ Measles ♦ Chicken pox ♦ German measles ♦ Influenza ♦ TB

Diarrhoea

My Notes







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Risk factors in food safety and quality

Session

Learner Guide: Page 44 After completing this session, the learner should be able to:

SO 4: Demonstrate an understanding of risk factors in food safety and quality related to the agricultural supply chain.

Concept (SO 4)	Time frame	Activities related to the concept
What is understood by food safety and quality is explained with reference to the agricultural enterprise.		
The different elements that can affect food safety and quality are described.	3 hours	Activity 9 – 10
The role of worker health and welfare on food safety and quality is discussed.		
The different records required to assist the operation is described.		



Please allow learners to complete Activity 9 in their Learner Guides

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Type of activity	Resources	
9. Brainstorm as a group	Writing paper, Pens/ marker pens, Oral	
	instruction, Learner guide, presentation chart	
Instructions to give to the learners		
Instruct the group to select a facilitator, note taker and person to summarise the discussion. Encourage the learners to participate equally.		

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Please allow learners to complete Activity 10 in their Learner Guides.

Type of activity	Resources
10. Presentation	Writing paper, Pens/ marker pens, Oral
	instruction, Learner Guide, presentation chart
Year to a the second to the least to the lea	

Instructions to give to the learners

As a group make a 10-minute presentation to the rest of the class explaining the following. (Write keynotes for yourself below):

What HACCP stands for and what it means.

Why a HACCP system might be implemented.

What the 7 principles of HACCP are.

My Notes





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Record keeping activities on the farm

Learner Guide: Page 54 After completing this session, the learner should be able to:

SO 5: Demonstrate basic understanding of record keeping activities on the farm.

Concept (SO 5)	Time frame	Activities related to the concept	
Your understanding of record keeping is explained.	3 hours		
The importance of a systematic filing system for records in accordance with GAP (good agricultural practices) and GMP (good manufacturing practices) principles is discussed.		Activity 11	
How and where certain files will be found is demonstrated e.g. regarding chemical usage, training or environmental issues etc.		receivey 11	
The process that will be followed to find or identify where a problem in the operation occurred is explained.			



It would be a good idea to take the students to a farm that has a systematic filling system in place so that the learners can spend time going through a system. It would be logical to have the following sections in place in a filling system:

- Personal files containing information regarding training and service.
- ♦ Chemical use- pesticides, herbicides and fungicides.
- ♦ Procedures in place
- Health and safety training records
- ♦ Safety audits
- ♦ Maintain records and schedules etc







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Please allow learners to complete Activity 11 in their Learner Guides

Type of activity	Resources
11. Research and write a brief report	Writing paper, Pens/ marker pens, Oral
	instruction, Learner guide
Instructions to give to the learners	

Instructions to give to the learners

Go to the farm where you are completing your practical learning and find out "How and where certain files will be found". Now explain the process that will be followed to find or identify where a problem in the operation occurred.

Conclusions

The learner must draw a conclusion relevant to the context of the specific area and commodity.

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.	



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