



NQF Level: 1

US No: 116167

Facilitator Guide

Primary Agriculture

Select, Use and Care for Hand Tools and Basic Equipment 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.



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:	Select, use and care for hand tools and basic equipment and infrastructure		
US No:	116167	NQF Level:	1
		Credits:	4

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	48970	1	120	<input type="checkbox"/>
National Certificate in Mixed Farming Systems	48971	1	120	<input type="checkbox"/>
National Certificate in Plant Production	48972	1	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 specificities 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:

Animal Production	
<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 learners have achieved this unit standard, they will –

- ◆ Be able to select hand tools and basic equipment that are appropriate to a specific agricultural task. The learner will be able to operate, care for and store basic tools and equipment in a safe and responsible manner.
- ◆ Be well positioned to extend their learning and practice into the use of more complex tools and equipment in other areas of agriculture.
- ◆ Be fully conversant with basic safety procedures and practices as well as good practices regarding the use and storage of basic tools and equipment.
- ◆ Gain an understanding of sustainable agricultural practices as applied in the animal-, plant and mixed farming sub fields. This unit standard focuses on the application of agricultural equipment, technology, implements and infrastructure in primary agriculture.
- ◆ Be able to participate in, undertake and plan farming practices with knowledge of their environment. This unit standard will instill a culture of maintenance and care for both the environment as well as towards farming infrastructure and operations.

Learners will specifically be able to:

- ◆ Select and use appropriate equipment and implements for a specific agricultural task.
- ◆ Recognise and act on problems related to the use of hand tools and basic equipment in an agricultural environment.
- ◆ Perform routine maintenance tasks to agricultural equipment.
- ◆ Store equipment correctly and safely.
- ◆ Identify and apply the correct safety measures when using hand tools and basic agricultural equipment and implements.

Learners will also gain basic knowledge of:

- ◆ Basic safety procedures related to hand tools and basic equipment.
- ◆ Basic identification of wear and tear on tools and equipment.
- ◆ Understand the purpose and need for the study of tools.
- ◆ The implications of the misuse, abuse and failure to maintain tools on the efficiency, effectiveness of the tool.
- ◆ The procedure to be followed regarding the reporting of problems related to tools and their status.
- ◆ How hand tools and basic equipment work (in order to recognise malfunctions and to perform elementary repairs and maintenance).
- ◆ The workings of the Occupational Health and Safety Act as it apply to the specific usage of tools.
- ◆ The implications of the misuse, abuse and failure to maintain tools on the safety of the operator and/or users.
- ◆ The application and use of the specific tools.

Learning Assumed to be in Place

No learning is assumed to be in place.

Introduction

Hand tools are the most common and frequently neglected items we come into contact with while on the farm. If used improperly or when damaged productivity and progress will be hampered and injury is likely to occur.

This workbook covers the range of tools available, the specific types most useful while carrying out farm work, what to purchase, use of and maintenance/storage of hand tools.

My Notes ...

Dotted lines for writing notes.

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)	40	20.58 hours (1235 minutes)	11.17 hours (670 minutes)	7
Learner Orientation and "Ice Breaker"	0.66 (40 minutes)	0.33 (20 minutes)	0.33 (20 minutes)	N/A
Purpose, Introduction and Learner Directions	0.48 (25 minutes)	0.25 (15 minutes)	0.33 (20 minutes)	
Session 1	8 hours	5 hours	180 minutes (3 hours)	1, 2
Session 2	5 hours	4 hours	60 minutes (1 hour)	3
Session 3	5.5 hours	3 hours	150 minutes (2.5 hours)	4, 5
Session 4	6 hours	4 hours	120 minutes (2 hours)	6
Session 5	6 hours	4 hours	120 minutes (2 hours)	7
Preparation for Assessment & revision	8.25 hours			

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.
- ◆ 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.
- ◆ There should always be good communication between facilitators and mentors to ensure effective learning experience.
- ◆ During practical activities facilitators should be present at all times. Should that not be possible, the mentor should be available for attendance.

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.		
Documentation checklist:		
Attendance Register		
Course Evaluation		
Learner Course Evaluation		
Portfolios of evidence		

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		

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 Select and use appropriate hand tools and equipment

Learner Guide:
Page 7

After completing this session, the learner should be able to:
SO 1: Select and use appropriate equipment and implements for a specific agricultural task.

Concept	Time frame	Activities related to the concept
Select and use appropriate equipment and implements for a specific agricultural task.	60 + 120 minutes	Activity 1 & 2
Let's talk about the types of tasks on a farm that might require you to use hand tools and equipment: <ul style="list-style-type: none"> • Soil preparation and planting. • Weeding. • Fertilizing and applying agro-chemical pesticides and herbicides. • Fences and trellis systems. • Plant manipulation and pruning. • Harvesting. • Maintaining structures and irrigation systems. 		
Let's take a closer look at each tool, it what it is used for; how to use and maintain it safely and correctly: <ul style="list-style-type: none"> • Picks. • Shovels and spades. • Forks. • Hoes. • Hand operated sprayers. • Small hand tools. • Simple power tools. • Harvest tools. 		

Session

2 Problems related to the use of hand tools

Learner Guide:
Page 23

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

SO 2: Recognise and act on problems related to the use of hand tools and basic equipment in an agricultural environment.

Concept	Time frame	Activities related to the concept
Recognise and act on problems related to the use of hand tools and basic equipment in an agricultural environment.	60 minutes	Activity 3
Let's briefly discuss possible problems and malfunctions that you might experience with a hand tool or with hand equipment, and how to remedy it: <ul style="list-style-type: none"> • Tools becoming blunt. • Sprayers becoming blocked. • Screws and bolts becoming loose. 		
Why it is important to report problems that you might experience with tools and equipment.		
Let's discuss the correct procedure to follow to report a problem or malfunction on tools and equipment to your supervisor or team leader.		

Concept	Time frame	Activities related to the concept
Tool maintenance and repairs.	60 minutes	Activity 3
Recognizing incorrect actions.		
Correct reaction to maintenance required.		



Please allow learners to complete Activity 3 in their workbooks

Type of activity	Resources	Instructions to give to the learners	Conclusions
3. Group discussion	Assessment Workbook Stationary	Allow time for groups to break away and discuss how they would react in the scenario. Encourage learners to participate in group discussions and share personal experience. Have a general report back session where different groups state their reaction in the scenario.	Tool maintenance and repairs. Recognising incorrect actions. Correct reaction to maintenance required.

My Notes ...

Session

3 Perform routine maintenance tasks to agricultural equipment

Learner Guide:
Page 26

After completing this session, the learner should be able to:
SO 3: Perform routine maintenance tasks to agricultural equipment.

Concept	Time frame	Activities related to the concept
Let's define the concept of "routine maintenance" and its importance.	60 + 90 minutes	Activity 4 & 5
Let's discuss some routine maintenance tasks: <ul style="list-style-type: none"> • Unblocking pipes and nozzles. • Sharpening blunt tools. • Cleaning nozzles on sprayers. • Checking water and oil levels in machinery. • Checking and maintaining cables and plugs. 		
Let's discuss a routine maintenance schedule.		
Reporting faults and problems as part of the routine maintenance schedule.		

Concept	Time frame	Activities related to the concept
Tool maintenance for specific equipment.	90 minutes	Activity 4
Reporting faults.		

4 Store equipment correctly and safely

Session

Learner Guide:
Page 30

After completing this session, the learner should be able to:
SO 4: Store equipment correctly and safely.

Concept	Time frame	Activities related to the concept
Store equipment correctly and safely.	120 minutes	Activity 6
Let's talk about cleaning prior to storage.		
Let's discuss how to store hand tools and equipment correctly, safely and securely.		
The purpose of special storage requirements.		

Concept	Time frame	Activities related to the concept
Tool storage.	60 minutes	Activity 5
Tool store design & layout.		

Please allow learners to complete Activity 5 in their workbooks



Type of activity	Resources	Instructions to give to the learners	Conclusions
5. Draw a picture	Assessment Tool Stationary	<p>Guide learners through various tool store rooms and discuss the layout and design.</p> <p>Explain to learner's instructions that are given in learner workbook.</p> <p>Allow an opportunity for learner to complete the questions in their workbook and swap books. Mark and give each other feedback.</p>	<p>Correct tool storage.</p> <p>Storing tools according to safety.</p> <p>Storing tools together or separately.</p>

Session

5 Safety measures for the use of hand tools

Learner Guide:
Page 33

After completing this session, the learner should be able to:
SO 5: Identify and apply the correct safety measures when using hand tools and basic agricultural equipment and implements.

Concept	Time frame	Activities related to the concept
<p>What does "health and safety" mean in context to the use of hand tools:</p> <ul style="list-style-type: none"> Preventing injury to oneself and others. <p>Preventing damage to the equipment.</p>	120 minutes	Activity 7
Let's define and understand safety measures during the use of hand tools and equipment.		
Let's identify safety measures as per manufacturer's instruction.		
The appropriate protective clothing to use and wear.		
What possible injuries could one sustain if you did not handle tools and equipment correctly and properly?		
Let's also talk about what kinds of damage one could cause to the infrastructure and crop if one did not use tools and equipment correctly.		

Concept	Time frame	Activities related to the concept
Recognition of incorrect or dangerous tool use and the consequences thereof in terms of tool breakages and losses.	120 minutes	Activity 7



Please allow learners to complete Activity 6 & 7 in their workbooks

Type of activity	Resources	Instructions to give to the learners	Conclusions
6. Brainstorm	Assessment Tool Stationary	Encourage learners to share personal experience of injuries sustained from incorrect tool use and not maintaining tools. Encourage learners to find reasons for the injuries that occurred and how it could have been prevented.	Correct choice of tool. Correct maintenance of tool. Correct use of tool. Safe handling of tool. Preventing incidents & accidents.
7. Group discussion	Assessment Tool Stationary	Allow time for groups to break away and discuss how the incorrect use of tools cause it to break or be damaged. Allow time for groups to share their ideas and experiences with other groups. Encourage learner participation in group discussions. Emphasise that groups have to explore tool break down and damage here rather than personal injury.	Correct choice of tool. Correct maintenance of tool. Correct use of tool. Safe handling of tool. Preventing tool damage. Limiting tool maintenance.

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.	