

		Unit ID: 1379
Domain	OPERATE MACHINERY TOOLS AND EQUIPMENT	
Title:	Operate simple farm machinery	
Level: 2		Credits: 2

Purpose

This unit standard specifies the competencies required to operate simple farm implements. It specifies competencies required to:

- Demonstrate knowledge of the parts and uses of simple farm machinery
- Prepare simple farm machinery and tools for use
- Operate simple farm machinery
- Complete operating simple farm machinery.

This unit standard is intended for people who work in agriculture as well as people in other occupations who drive tractors and farm vehicles.

Special Notes

1. Entry information:

Prerequisites:

- None

2. This unit standard is to be delivered and assessed in the context of agricultural operations and can be assessed in conjunction with other relevant technical unit standards.

3. The evidence required to demonstrate competency in this unit must be relevant to workplace operations.

4. Assessment evidence may be collected from a real workplace or an appropriate simulated environment in which agricultural operations are carried out.

5. Assessment of competence in this unit standard is based on a minimum of two hand operated and two tractor mounted equipment or three point hitch linkage equipment as relevant to this unit standard.

6. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.

7. It is expected that the participants of this course will not go out of the farm roads to drive vehicles and tractors on public roads unless they are in possession of a Namibian drivers licence B class or equivalent.

8. Glossary of terms

- '*Simple farm machinery*' may include but is not limited to motorised equipment and implements, trailing or three point linkage equipment i.e.

primary tillage, secondary tillage and weeding implements, rotary hoes, chainsaws, firefighting units.

- '*Workplace procedures*' may include but are not limited to work notes, plans, product labels, manufacturer's specifications, operator's manuals, safety plans, fire control, waste disposal, recycling, re-use guidelines and supervisors oral or written instructions.
- '*Safety requirements*' may include but are not limited to safe systems and procedures for the safe operation of vehicles, engines, tractors and attached equipment including the fitting of guards and shields, hazard and risk control, safe mounting and dismounting, manual handling, checks to ensure loads are secure and within working specifications, roll overprotection secured if required, the application of emergency/defensive driving techniques, handling, application and storage of hazardous substances, outdoor work and the use of personal protective equipment.
- '*Hazards*' may include but are not limited to exposure to noise, fumes, hazardous substances (fuels, oils), solar radiation, dusts, ergonomic hazards associated with posture and mechanical vibration, bystanders, livestock and wildlife, difficult terrain and varying gradients, ditches, gullies, embankments, obstacles, adverse weather conditions, electricity, power lines, loose clothing, load shifts, mechanical malfunctions, exposed moving parts, loads being carried, overloading and other machinery.
- '*Personal Protective Equipment (PPE)*' may include but is not limited to boots, overalls, gloves, protective eyewear, hearing protection, respirator or face mask, high visibility clothing and sun protection.

9. Regulations and legislation relevant to this unit standard include the following:

- Labour Act, No. 11, 2007
- Regulations relating to the Health and Safety of employees at work, 1997
- Road Traffic and Transport Regulations No. 266, 2000
- National Agricultural Policy , 1995
- National Drought Policy , 1997
- Environmental Management Act -No: 7 of 2007
- Standards Act, 2005, Standards Regulations: Standards Act, 2005 and relevant Namibian Standards as established

and all subsequent amendments to any of the above.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority on www.namqa.org.na and the Namibia Training Authority on www.nta.com.na.

Elements and Performance Criteria

Element 1. Demonstrate knowledge of the parts and uses of simple farm machinery

Range

“Simple farm machinery covered may include but is not limited to hand operated, motorised equipment and implements, trailing or three point linkage equipment i.e. primary tillage, secondary tillage and weeding implements, trailers, rotary hoes, chainsaws, firefighting units.

Types of simple farm machinery and equipment may include but is not limited to at least two hand operated and two tractor mounted or three point hitch linkage equipment.

Performance Criteria

- 1.1 The types of simple farm machinery and equipment are described.
- 1.2 The types of simple farm machinery and equipment are identified.
- 1.3 The parts of types of simple farm machinery and equipment are named and identified.

Element 2. Prepare simple farm machinery and tools for use

Range

Routine checks and maintenance may include but is not limited to pre-start and safety checks and daily maintenance requirements.

Performance Criteria

- 2.1 Safety requirements are followed in accordance with safety plans and policies.
- 2.2 Hazards for working with tractors and machinery are identified, risks assessed and risk controls are implemented in accordance with safety plans.
- 2.3 Appropriate personnel protective equipment (PPE) is selected, used and maintained according to workplace procedures.
- 2.4 Routine pre-operational checks are conducted according to workplace procedures.
- 2.5 Damaged or worn components are replaced and/or reported according to workplace procedures.
- 2.6 Equipment is attached and checked for correct operation in accordance with workplace procedures.
- 2.7 Select the appropriate tools, implements and/or equipment, from a limited range, to use in a specified combination of activities within a single agricultural process.

Element 3. Operate simple farm machinery

Range

Environmental risks may include but are not limited to excessive noise and exhaust emissions, erosion and dust problems, soil compaction, the unsafe use and disposal of maintenance debris, oil containers, chemical residues and hazardous substances.

Machinery and equipment may include but is not limited to at least two hand operated and two tractor mounted or three point hitch linkage equipment.

Performance Criteria

- 3.1 Machinery and equipment is set to suit selected crop and the field conditions.
- 3.2 Machinery and equipment is operated in a safe, efficient and controlled manner.
- 3.3 Machinery is operated in accordance with task requirements, conditions and manufacturer's operating guidelines.
- 3.4 Machinery performance and efficiency is monitored and adjustments made as required.
- 3.5 Potential environmental risks of operating equipment are assessed and minimised.

Element 4. Complete operating simple farm machinery

Range

Shut down procedures for tractors and farm machinery may include but are not limited to turning the engine off, safe dismounting and securing the vehicle. It may also include parking away from hazards, maintaining a clear thoroughfare, refuelling and cleaning the equipment of soil and plant material.

Operational records may include but are not limited to fuel used, hours worked; depths of operation, variety planted and soil conditions.

Performance Criteria

- 4.1 Shut down procedures are conducted according to manufacturer's specifications and workplace procedures.
- 4.2 Malfunctions, faults, irregular performance or damage to engine, tractor or farm vehicle and attached equipment is detailed and reported according to workplace procedures.
- 4.3 Machinery and equipment are cleaned and decontaminated where necessary, secured and stored according to workplace and safety requirements.
- 4.4 Machinery, tools and equipment are maintained and stored according to specifications and workplace procedures.
- 4.5 Machinery and equipment operational records are completed, recorded and reported according to workplace procedures.

Registration Data

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