



NQF Level: 4 US No: 116297

Assessment Guide

Primary Agriculture

The harvesting plan



Assessor:

Workplace / Company:

Commodity: Date:

Before we start...

This assessment guide contains all necessary activities and instructions that will enable the assessor and learner to gather evidence of the learner's competence as required by the unit standard. This guide was designed to be used by a trained and accredited assessor whom is registered to assess this specific unit standard as per the requirements of the AgriSETA ETQA.

Prior to the delivery of the program the facilitator and assessor must familiarise themselves with content of this guide, as well as the content of the relevant Learner Workbook.

The assessor, facilitator and learner must plan the assessment process together, in order to offer the learner the maximum support, and the opportunity to reflect competence.

The policies and procedures that are required during the application of this assessment are available on the website of the AgriSETA and should be strictly adhered to. The assessor must familiarise him/herself with this document before proceeding.

This guide provides step-by-step instructions for the assessment process of:

Title: Developing a harvesting plan for the specific agricultural crop
US No: 116297 NQF Level: 4 Credits: 3

This unit standard is one of the building blocks in the qualification listed below. Please mark the qualification you are currently assessing, because that will be determined by the context of application:

Title	ID Number	NQF Level	Credits	Mark
National Certificate in Animal Production	48979	4	120	<input type="checkbox"/>
National Certificate in Plant Production	49009	4	120	<input type="checkbox"/>

Please mark the learning program you 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 Assessor:

If you are assessing this module as part of a full qualification or learnership, please ensure that you have familiarized yourself with the content of the qualification.

1**SO 1****Instructions to learner:**

Group Work

Learner Guide: Page 12 Facilitator Guide: Page 12

Review the harvesting techniques and equipment.

In this section you will review the harvesting techniques used for the crop farmed at your place of work.

1. Using all sources of information available to you, determine all the techniques and equipment used in harvesting the crop produced at your place of work.
 - Learners are to search for all potential techniques that can be used for their specific crop, including those not used on the farm.
 - Need to determine the potential effects that the harvest technique may have on the quality of crop.
 - Compare aspects such as time of harvesting and its relation to harvest techniques in use. (Some techniques only allow harvest at a certain degree of ripeness.)
2. Now determine the specific techniques used on farm and motivate why these are used rather than other alternatives generally used for the specific crop.
 - Learners are to determine and motivate the techniques used at their place of work.
 - Look at aspects such as volume delivery, quality considerations and on farm logistics.
3. Determine the market requirements of the harvested crop
 - Learners are to determine the on farm market requirements.
 - Learners are to determine the main quality groups of their crop should there be more than one major client.
 - Identify at least 2 groups and identify their target clients. (Learners must include the export produce as one of the main clients.)
 - Learners must determine the clients that receive the harvested produce
 - Learners must determine the different product requirements and volumes of the crops that are delivered to the various clients.

4. Determine the specific procedures followed to facilitate the harvested produce to reach the client in the condition they required.
 - Learners are to determine the specific procedures for each of the main quality requirements
 - Learners are to trace the process from the point of picking/cutting/ etc, up to the point of delivery to the client
 - Learners are to identify the various locations that the harvested crop is transported to
 - Learners are to determine the harvest volumes as required for each of the main quality groups
 - Learners are to determine the optimal volumes that should be delivered to the pack-houses
5. Determine the volume a picker / harvester can harvest per time interval (this is usually a volume per day).
 - Learners are to approach this for both major quality groups (export and local market quality)
 - Identify whether there is a significant difference in harvested volumes between the two main quality groups. In some cases the higher quality crop will require more time, thus influencing the volume per harvester which will be lower for the higher quality crop.
6. Determine the number of labour units required to reach the target volumes.
 - Learners are to calculate the number of harvesters required to reach the target volumes for each of the harvest groups. This calculation is normally done on a per day basis.
 - It is also important to calculate the labour units over the harvest period as a whole as this will differ from crop to crop. For some crops this may be a short period; a few days or weeks. (e.g. Tomatoes with a determinately growing season; this will be a two week period at the end of the growth period and the entire crop will be harvested at once. Tomatoes with an indeterminately growing season; this will be a longer, almost indefinite period and will therefore be easier to work on the volumes per day.)
7. Determine the equipment quantity required for the harvest.
 - The quantity of each tool or pieces of equipment is identified and calculated, using data gained from step 6 to do this calculation.
8. Determine the ideal harvesting time to ensure that both quality and volume requirements are met.

Instructions to learner:

Group Activity

Learner Guide: Page 18

Facilitator Guide: Page 17

Groups not exceeding 3 learners

Using the information gathered during activity 1, develop a harvest equipment plan for the major crop grown at your place of work. The plan should be aimed at fulfilling the requirements of the major clients.

Ensure that you address the following when developing the plan:

- Market requirements relevant to the main target market.
- The equipment selection that will allow harvested crop to meet these requirements.
- Identification of all the equipment needed; the specific locations where it is required; the physical positioning of every site; and the ideal placement of equipment at each site.
- The quantity of equipment required, taking into account the volumes to be delivered and the numbers of labourers required.
- An implementation plan is designed that provides time lines on how and when the harvest plan is to be implemented.
- Details on when, how and from what sources equipment is procured.
- Which equipment checks are to be performed and the procedures in case equipment do not meet requirements.

Assessment:

Learners are to construct a harvest equipment plan, using the relevant information gathered for the major crop that is harvested at their place of work.

Model Answer(s):

None provided as the results will be site specific and specific to the crop grown.

However, learners must have taken the following into account:

- *Market requirements for the main target crop grown.*
- *The potential impact of equipment selection on produce quality.*
- *All equipment required is identified.*
- *The quantity of equipment required are determined taking into account the volumes to be delivered and the numbers of labourers required.*
- *The plan provides time lines on how and when the harvest plan is to be implemented.*
- *Details on sources of equipment and timing of procurement are provided.*
- *Details of equipment checks required are provided.*

Instructions to learner:

Group Activity

Learner Guide: Page 22

Facilitator Guide: Page 18

Groups not exceeding 3 learners

Develop a Health, safety and hygiene plan for the major crop produced at your place of work. Use the harvest specification and requirements for the crop and client used in Activity 3.

Ensure that you take into account:

- On farm health and safety procedures and plans
- Accident and emergency procedures
- Procedures that could be put in place to avoid accidents
- Hygiene logistics requirements – i.e. when, where and how many facilities and equipment required.
- Suitable safety wear and equipment is sourced and identified.
- The labour training schedule fits into existing training plans.

Model Answer(s):

None provided as the results will be site specific and specific to the crop grown.

However, learners must provide evidence of taking the following into account:

- *On farm health and safety procedures and plans.*
- *Accident and emergency procedures are in place.*
- *Accidents avoidance is considered.*
- *Hygiene logistics requirements are considered.*
- *Suitable safety wear and equipment is sourced, identified and listed.*
- *A labour training schedule is developed to fit into existing training plans.*

My Notes ...

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SO 1 - 6

Instructions to learner:

Group Activity

Learner Guide: Page 23

Facilitator Guide: Page 19

Groups not exceeding 3 learners

Develop a waste management plan for use on the crop identified in Activity 2.

Ensure that you take into account:

- The type of waste expected
- Waste segregation
- Site of waste build up
- Timing and volume of waste expected
- Responsibilities, procedures and logistics for personnel handling waste.
- Any training that may be required must also be planned.

Model Answer(s):

None provided as the results will be site specific and specific to the crop grown.

However, learners must provide evidence of:

- *Relevant waste types are identified*
- *Waste is segregated*
- *Where the waste is expected to develop*
- *The volume and timing within which waste is expected*
- *Responsibilities for personnel handling waste are identified*
- *Waste handling procedures for each waste stream is identified*
- *Waste handling logistics are developed*
- *Training requirements are identified.*
- *Hygiene logistics requirements are considered*
- *Safety wear and equipment is identified, listed and the sources are identified.*
- *Training schedules are developed*

My Notes ...

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Instructions to learner:

Group Activity

Learner Guide: Page 24**Facilitator Guide: Page 19**

Groups no larger than 3 learners

By using the information and plans developed in activity 1 – 6; compile a harvest plan that will enable the farm to meet the criteria set out below:

- Crop Quality to meet with that of the major markets
- Produce delivery within specified market requirement
- Overall harvest period available is known
- Labour training requirement can be met
- Risks are identified and a management plan is in place
- Record keeping in planned – relevant forms is designed and responsibilities are assigned.
- Harvest logistics are planned
- Harvest techniques are identified
- Storage identified and planned
- Equipment and labour plan is in place
- Labour training is in place.
- Health and Safety plan is in place
- Procedures are in place for handling minor and major accidents
- The required hygiene practices
- Maturity indexing plan in place
- Waste management plan in place
- Training requirement are in place.

Model Answer(s):

None provided as the results will be site specific and specific to the crop grown

Summative Test and Attitude & Attribute Evaluation

Before the knowledge test is undertaken, the learner must be reminded of what is expected from him / her in terms of summative and reflexive competence. Read and explain to the learner, the **Preparation for Your Final Assessment** section in the learner workbook. Learners and assessor should sign off this section to acknowledge that this step was completed.

Please set up a knowledge test from the questions given as a guideline to learners and supply each learner with a test sheet.

Supply each report with the following heading:

Unit Standard:	116297	NQF Level:	4
Learner Name:			

Questions	Model Answers
1. What are the market quality requirements for the main crop grown at your place of work?	<ul style="list-style-type: none"> ◆ None provided as the aspect is crop and site specific, however learners must describe: ◆ Harvest quality requirements according to the maturity indexing used ◆ Impacts of withholding period ◆ Post harvest requirements ◆ Potential presence of quarantine organisms that may lead to crop rejection at the end point.
2. What is major market for the crops grown at your place of work?	<ul style="list-style-type: none"> ◆ None provided as the aspect is crop and site specific, however learners must identify all markets they service.
3. Describe the harvest techniques required to fulfil market requirement?	<ul style="list-style-type: none"> ◆ None provided as the aspect is crop and site specific.
4. What volume or mass of crop can be harvested safely within a day?	<ul style="list-style-type: none"> ◆ None provided as the aspect is crop and site specific.

<p>5. What tools are typically used during harvest? Describe their use.</p>	<p>◆ None provided as the aspect is crop and site specific. Learners must however describe the use of equipment, the associated safety issues and the maintenance programmes.</p>
<p>6. Describe the harvest process followed at your place of work?</p>	<p>◆ None provided as the aspect is crop and site specific. Learners must however be able to describe the full process from picking through to the market ready product.</p>
<p>7. What are the major risks associated with the harvest?</p>	<p>◆ None provided as the aspect is crop and site specific. Learners must however be able to consider the safety issues, the affects of weather on the harvest, storage risks, the potential effects should the harvest be postponed or started earlier.</p>
<p>8. Describe the maturity indexing systems used on farm.</p>	<p>◆ None provided as the aspect is crop and site specific. Learners must however identify, describe and demonstrate the actual indexing as well as the timing of indexing as well as the record keeping.</p>
<p>9. What are the quality criteria measured by the maturity index and why should this be determined?</p>	<p>◆ None provided as the aspect is crop and site specific.</p>
<p>10. How is the maturity of the crop influenced by environmental effects?</p>	<p>◆ None provided as the aspect is crop and site specific.</p>
<p>11. Explain the different factors that need to be considered when developing a harvesting plan.</p>	<p>◆ None provided as the aspect is crop and site specific. The learners should discuss factors such as weather, withholding periods, colour and size, number of people needed, numbers of tools, safety etc.</p>
<p>12. Discuss the GAP for the crop produced at your place of work.</p>	<p>◆ None provided as the aspect is crop and site specific</p>
<p>13. Discuss the health, hygiene and safety plan for the farm in relation to harvest.</p>	<p>◆ None provided as the aspect is crop and site specific.</p>
<p>14. Discuss the waste handling plan for the farm in relation to harvest.</p>	<p>◆ None provided as the aspect is crop and site specific.</p>

Assessment Feedback Form

Comments / Remarks	
<p>Feedback to learner on assessment and / or overall recommendations and action plan for competence:</p>	
<p>Feedback from learner to assessor:</p>	
<p>Assessment Judgement You have been found:</p> <p><input type="radio"/> Competent</p> <p><input type="radio"/> Not yet competent in this unit standard</p>	<p>Actions to follow:</p> <p><input type="radio"/> Assessor report to ETQA</p> <p><input type="radio"/> Learner results and attendance certification issued</p>
<p>Learner's Signature:</p>	<p>Date:</p>
<p>Assessor's Signature:</p>	<p>Date:</p>
<p>Moderator's Signature:</p>	<p>Date:</p>