



# LEARNER WORKBOOK

## Irrigation



<b>Title:</b>	<b>Operate and Maintain Specific Irrigation Systems</b>				
<b>Applied Title:</b>	<b>Operate and Maintain Irrigation Systems Specific to Subtropical fruit Orchards</b>				
<b>Field:</b>	Agriculture and Nature Conservation				
<b>Sub-Field:</b>	Primary Agriculture				
<b>SETA (SGB):</b>	AgriSETA				
<b>Skills Area:</b>	Irrigation				
<b>Context:</b>	Subtropical fruit Production				
<b>US No:</b>	116066	<b>Level:</b>	2	<b>Credits:</b>	3
				<b>Notional Hours:</b>	30
<b>Author:</b>	F. Kruger				
<b>Adaptation:</b>	T. Bekker				

**This material is adapted from production learning material developed by and under license from:**



P.O. Box 461, Hillcrest, 3650  
(031) 313-3364

### **Disclaimer**

By accepting this document and reading its contents you agree to be bound by the terms of this disclaimer.

The use of the contents of this document is at your own risk. The Citrus Academy does not warrant that the content of this document is suitable for your intended use or that it is free of inaccuracies or omissions. The opinions and advice expressed in this document are not necessarily those of the Citrus Academy. The Citrus Academy, its directors, officers, employees, agents and contractors shall not be liable for any loss or damage of any nature suffered by any person as a direct or indirect result of the use of, or inability to use any advice, opinion or information contained in this document, or any misrepresentation, misstatement or omission, whether negligent or otherwise, contained in this document.

You indemnify the Citrus Academy against any claim by any third party against the Citrus Academy, its directors, officers, employees, agents or contractors arising from, or in connection with, the use of, or reliance on, the contents of this document. It is your responsibility to determine suitability of the contents of this document for your intended use.

## Table of Contents

Directions .....	4
Step 1 .....	5
Step 2 .....	7
Step 3 .....	8
Step 4 .....	9
Step 5 .....	11
Step 6 .....	18
Step 7 .....	20
Step 8 .....	23
Step 9 .....	24
Step 10.....	31

## **Directions**

This material is aimed at learners wishing to complete this unit standard. The 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 is designed to be used by the learner with guidance from a facilitator and a trained assessor to develop competence in all knowledge, skills and attitudes required by this unit standard.

This guide contains step-by-step instructions for the assessment process. These steps are as follows:

<b><i>Step</i></b>	<b><i>Description</i></b>	<b><i>Timeframe</i></b>
1	Learner Assessment Contract	Before delivery of program
2	Learner Declaration of Authenticity	Before delivery of program
3	Learning Assumed to Be in Place	Before delivery of program
4	Learner Assessment Plan for Gathering of Evidence	Before delivery of program
5	Assessment Activity Workbook	During delivery of program, assessment after delivery of program
6	Knowledge Questionnaire	After delivery of program
7	Attitudes and Attributes Assessment	After delivery of program
8	Re-assessment Procedures	After completion of assessment
9	Documentation	After completion of assessment
10	Administration and Completion of Portfolio of Evidence	After completion of assessment

# Step 1

## Learner Assessment Contract

The assessor and / or the facilitator holds a pre-assessment briefing with you before the learning program starts in order to guide you and assist you to make sure that you understand exactly what is expected from you in order to become competent in this learning module.

As part of the pre-assessment briefing, the learner assessment contract must be signed. The assessor will assist you and explain the agreement to you in detail.

<b>Learner Assessment Contract</b>	
<b>Learner's Name:</b>	
<b>Assessor's Name:</b>	
<b>Unit Standard:</b>	116066
<p>Your rights as a learner are:</p> <ol style="list-style-type: none"> <li><b>1. You have a right to appeal</b> against any judgment given as a result of any assessment. You must have valid reasons for doing this.</li> <li><b>2. You have the right to an interpreter</b> if you need one. However, if one of the learning assumptions for the unit standard is that you are competent within the language of assessment, you may not have an interpreter.</li> <li><b>3. You can ask that an impartial observer attend any assessment.</b> This observer may not take any part in the assessment.</li> <li><b>4. If you do not agree with the assessment, you have the right to have your assessment internally moderated.</b> If you still do not agree with the result of the assessment you can ask that the ETQA to perform an <b>external moderation</b> on the assessment. If any verification upholds the assessment findings, you will be held liable for all the costs of the verification. If any verification rules that you have been aggrieved as a result of the assessment, your assessor will be held liable for all cost of verification.</li> <li><b>5. If during the assessment you are found not yet competent, your assessor will encourage you to master the areas where you have not reached competency.</b> This will be recorded on a <b>development plan</b>. You are required to arrange with the assessor for a new assessment schedule. The assessor can only permit three such re-assessments. If a learner has not reached mastery after three additional attempts, the assessor reserves the right to remove you from the program.</li> </ol>	
<p><b><u>Qualification</u></b></p> <p>This standard leads to the award of credits for unit standard 116066. Once the assessment is complete application will be made to register and certify you for that standard with the AgriSETA. You may contact the assessor or facilitator at any time for information to assist you with further studies.</p>	
<p><b><u>Confidentiality</u></b></p> <p>Each assessment application, the outcomes, results and reviews will be treated as a confidential matter by you, the learner, the facilitator(s), assessor(s), and moderator(s). No references will be made to anyone or any organisation outside the SETA about the status of an application during the assessment process.</p>	

**Assessment Guide – Learner**

**Skills Area:** Irrigation

**Level:** 2

**Unit Standard:** 116066

**Consent**

I, the learner, hereby state that I have read the above and understood the contents thereof. I was given the opportunity to clarify any issues relating to the assessment process and my assessment plan. I have requested this assessment of my own free will and without duress.

<b>Learner's Signature</b>		<b>Date:</b>	
<b>Assessor's Signature</b>		<b>Date:</b>	

## Step 2

### Learner Declaration of Authenticity

It is important that we make sure that each learner supplies original evidence completed by himself / herself and according to the level of knowledge and skill that he / she has acquired from the learning process.

Please sign the following declaration:

I hereby declare that the following documentary evidence is my own. I certify that the process followed was ethical and did not infringe on the copyright of any individual or organisation.			
<b>Learner's Signature</b>		<b>Date:</b>	
<b>Assessor's Signature</b>		<b>Date:</b>	

## Step 3

### Learning Assumed to Be in Place

Do you have all the knowledge and skills necessary to begin this learning process?

This is a level 2 module of learning, and we have to make sure that you have already learnt all the skills, knowledge and attitudes that you will need to use in this module. It will help you to understand and learn more easily in this module, and it is important that we know whether you are ready to move on.

Please look at the list of unit standards below of modules that you should have completed before undertaking this one. Tell us whether you have completed each of the unit standards or modules, and if you did, tell us when you learnt this.

If you need help in understanding this list, please ask the facilitator or assessor.

<i><b>NQF Level</b></i>	<i><b>Unit Standard Number</b></i>	<i><b>Learning Module Name</b></i>	<i><b>No, I Have Not Completed It</b></i>	<i><b>Yes, I Have Completed It</b></i>	<i><b>If Yes, When Did You Complete It?</b></i>
1 (ABET 4)		Literacy and Numeracy			
1	116202	Operate and maintain irrigation systems			
2	116060	Utilise and perform minor repair and maintenance tasks on implements, equipment and infrastructure			
<b>Learner's Signature</b>			<b>Date:</b>		
<b>Assessor's Signature</b>			<b>Date:</b>		

## Step 4

### Learner Assessment Plan for Gathering of Evidence

As the assessor has explained to you, the aim of an assessment is not to catch you out, but rather to help you develop all the skills, knowledge and attitudes that you need to move forward. It is important that you know what is expected from you and that you play an active role every step of the way.

Let us plan for the assessment together. Below are the steps that you have to work through in order to show that you are competent in this module. Check them carefully and discuss each step with the assessor. Agree with the assessor on the dates on which each step has to be completed or documents handed in. Write the dates in the right-hand column as a reminder.

<b>Learner Assessment Plan</b>		
<b>Module / Unit Standard Name:</b>	Operate and Maintain Specific Irrigation Systems	
<b>Module / Unit Standard Registration Number:</b>	116066	
<i>Step Number</i>	<i>Step Description and Learner's Tasks</i>	<i>Completion / Submission Date</i>
<b>5</b>	<p><b>Assessment Activity Workbook</b></p> <ul style="list-style-type: none"> <li>• In this step, you complete certain tasks in class or as homework.</li> <li>• It is important that you complete every task and understand why it is necessary, because it will help you to gain the knowledge, skills and attitudes that you need to be found competent in this learning module.</li> <li>• If there are things that you are unsure about, please ask the facilitator or the assessor to explain it to you again.</li> <li>• You hand in the completed workbook to the facilitator or assessor who will help you to check your progress.</li> <li>• The assessor or facilitator mark it and discuss areas that need more work with you.</li> </ul>	
<b>6</b>	<p><b>Knowledge Questionnaire</b></p> <ul style="list-style-type: none"> <li>• There are many important things that you need to remember about irrigation in order to be found competent in this learning module, and so that you can do your job well and move on to level three.</li> <li>• You have to complete a questionnaire to check if you have gained all this knowledge.</li> <li>• There is a detailed list of things that you need to know in this guide and examples of the types of questions that you could be asked.</li> <li>• Please prepare yourself well and remember to ask the facilitator or assessor to explain anything that you don't understand.</li> </ul>	
<b>7</b>	<p><b>Attitudes and Attributes Assessment</b></p> <ul style="list-style-type: none"> <li>• You have to develop very specific character traits and attitudes and have to be able to do very specific tasks to be competent in this learning module, be good in this job, and to be able to move on to level three.</li> <li>• Going out into the field, and showing and explaining certain skills and attitudes, is the most appropriate way for you to show that you are competent in the skills and attitudes that are needed.</li> <li>• You will have an opportunity to practice these tasks and develop these</li> </ul>	

	<p>attitudes during your practical learning module.</p> <ul style="list-style-type: none"> <li>• There is a list of all the things that you would have to be able to show and explain in this guide.</li> <li>• Please prepare yourself well and remember to ask the facilitator or assessor to explain anything that you don't understand.</li> </ul>	
<b>8</b>	<p><b>Re-Assessment Procedure</b></p> <ul style="list-style-type: none"> <li>• What if the assessor tells you that you have not met the right standard or that you still need more evidence to prove your competence?</li> <li>• The assessor explains to you exactly what you need to do or learn to become competent.</li> <li>• You and the assessor and / or facilitator, develop an action plan together, and you may be granted a second or even a third opportunity to prove your competence.</li> <li>• Remember you have the right to appeal against the assessor's decision, if you feel it is unfair. There is a copy of the form in the back of this guide if you need it.</li> </ul>	
<b>9</b>	<p><b>Paperwork</b></p> <ul style="list-style-type: none"> <li>• If you have met the standard that is explained for each step of the process you will be found competent in this unit standard.</li> <li>• The assessor will discuss everything with you in detail and will ask you to fill in and sign forms throughout the process.</li> <li>• You will also be given an opportunity to write down any comments you might have on the assessment process.</li> <li>• Once the assessor has given you the final declaration of competence, you will be asked to give some feedback in order to help everyone to improve the learning and assessment process.</li> <li>• Please think carefully. It might really help other learners in the future.</li> </ul>	
<b>10</b>	<p><b>Administration and Completion of Portfolio of Evidence</b></p> <ul style="list-style-type: none"> <li>• All the documents, or copies of them, must be kept on file as part of your portfolio of evidence.</li> </ul>	
<p><b>Into the Future</b></p> <ul style="list-style-type: none"> <li>• The assessor will discuss what happens next and when you will get a certificate of competence.</li> <li>• It is also important to remember that you learnt this module for a specific reason. Discuss with the assessor, facilitator, mentor, and / or coach how you can move forward in your career with this level of competence.</li> <li>• Also remember that the learning process never stops. Plan together with the assessor, facilitator, coach, and / or mentor what you need to learn next.</li> </ul>		
<b>Learner's Signature</b>		<b>Date:</b>
<b>Assessor's Signature</b>		<b>Date:</b>

## Step 5

### Assessment Activity Workbook

- The activities that follow are designed to help you gain the skills, knowledge and attitudes that you need in order to become competent in this learning module.
- It is important that you complete all the activities and worksheets, as directed in the learner guide and at the time indicated by the facilitator.
- It is important that you ask questions and participate as much as possible in order to play an active roll in reaching competence.
- When you have completed all the activities and worksheets, hand this workbook in to the assessor who will mark it and guide you in areas where additional learning might be required.
- You should not move on to the next step in the assessment process until this step is completed, marked, and you have received feedback from the assessor.

#### Activity 1 – Checklist

Draw up a detailed checklist for yourself and / or the farm on which you will be performing your practical learning of everything that has to be checked prior to starting-up the pump system on a subtropical fruit farm. Ensure that you make provision for dates and signatures of the person who will be completing the checklist.

--