



Australian Government

Department of Education, Employment and Workplace Relations

AHCNSY307A Operate fertigation equipment

Release: 1

AHCNSY307A Operate fertigation equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of operating fertigation equipment to deliver fertilisers via the irrigation system and defines the standard required to: calculate and prepare fertigation materials; connect and calibrate equipment; operate, monitor and adjust delivery; shut down and clean equipment; dispose of waste in an environmentally responsible way.
------------------------	---

Application of the Unit

Application of the unit	This unit is likely to be carried out under routine supervision within enterprise guidelines.
--------------------------------	---

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Prepare materials and equipment for operation	1.1. Materials and services are confirmed as available and ready for operation. 1.2. Materials are prepared to meet fertigation requirements. 1.3. Injection or fertigation equipment is connected, as directed, and calibrated according to manufacturer's specifications. 1.4. Fertiliser concentration is calculated and the solution thoroughly mixed according to enterprise, Occupational Health and Safety (OHS) and environmental requirements. 1.5. Equipment is set to meet fertigation requirements.
2. Operate the fertigation process	2.1. Start up sequence is implemented according to operations manual and enterprise procedures. 2.2. Fertigation process is operated and monitored to ensure delivery is maintained according to enterprise specifications and procedures. 2.3. Fertigation equipment is monitored to ensure no adverse environmental impact is caused by faulty operation. 2.4. Corrections to the process and equipment adjustments are implemented as necessary.
3. Shut down fertigation equipment	3.1. Injection equipment is flushed out according to enterprise standards prior to shut down. 3.2. Equipment is cleaned according to enterprise procedures. 3.3. Waste generated by both the fertigation process and cleaning procedures is managed according to environmental protection requirements and enterprise OHS procedures. 3.4. Fertigation activities are reported and recorded according to regulatory requirements and enterprise procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE**Required skills**

- identify hazards and implement safe work procedures
- calculate and prepare fertigation materials
- connect, calibrate and operate the equipment, and monitor and adjust the delivery of fertilisers
- shut down, clean equipment and dispose of waste
- use personal protective equipment
- identify adverse environmental impacts of fertigation activities and appropriate remedial action
- implement enterprise, OHS and environmental policies and procedures
- use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- fertigation injection equipment
- chemical handling procedures for fertiliser, chlorine, acid and cleaning agents
- cleaning procedures for fertigation equipment
- Material Safety Data Sheets (MSDSs)
- environmental impacts of delivering fertilisers via the irrigation system
- OHS issues
- enterprise policies and procedures.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:

- calculate and prepare fertigation materials
- connect and calibrate equipment
- operate, monitor and adjust delivery
- shut down and clean equipment
- dispose of waste in an environmentally responsible way.

Context of and specific resources for assessment

Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole.

Fertigation equipment may include:

- injection and fertigation equipment such as:
 - injection pumps
 - injection points
 - chemical holding tanks.

Unit Sector(s)

Unit sector

Nursery

Co-requisite units

Co-requisite units		

Competency field

Competency field	
-------------------------	--