

ELECTIVE COMPETENCIES

UNIT OF COMPETENCY: FOLLOW SITE QUARANTINE PROCEDURES

UNIT CODE: AGR611325

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to follow enterprise site quarantine procedures that are designed to reduce the likelihood of pathogenic organisms entering the site. Site quarantine procedures are followed as a routine part of one's own work and are applied to visitors to the site. Work is performed under supervision and according to established procedures and policies.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold terms are elaborated in the Range of Variables</i>
1 Prepare to work in quarantine site	1.1 Ensure personal and/or work vehicles are decontaminated before entering the quarantine site. 1.2 Contact with potential contaminants is reported according to enterprise requirements 1.3 Hands are washed before livestock, feed, plant stock or other products are handled 1.4 Appropriate clothing and footwear is put on before commencing work and 'street clothing' is securely stored away from livestock, feed or other agricultural produce.
2 Work in quarantine site	2.1 Chemicals for disinfection and/or medications administered to livestock are handled and stored according to workplace requirements. 2.2 Different feed mixes, soils and/or growing media and/or other products are kept separately and appropriately marked according to quarantine procedures. 2.3 Any cases of pest and disease incidence are identified and reported to supervisor. 2.4 Any breaches of quarantine procedures are identified and reported to supervisor.

	<p>2.5 Any OHS hazards are identified and appropriate action is taken according to enterprise policy and OHS legislation and codes.</p> <p>2.6 All waste product is disposed of according to SOP.</p> <p>2.7 All deceased livestock, unwanted biological material or damaged/infected plant stock are disposed of according to SOP.</p> <p>2.8 Information relating to work in quarantine site is recorded as required in the SOP.</p>
3 Assist in maintaining site quarantine procedures	<p>3.1 All visitors are informed of the quarantine procedures and are provided with appropriate clothing and footwear, if required by SOP.</p> <p>3.2 Any observed breaches of quarantine procedures by visitors are noted and reported to supervisor</p> <p>3.3 Gates and doors are kept locked where required by SOP and supervisor instructions</p> <p>3.4 Where installed, security fencing is maintained according to supervisors instructions</p> <p>3.5 Deliveries to site are checked to ensure that established procedures for vehicle decontamination, unloading and receipt and holding or storage of stock and/or supplies are followed</p>
4 Respond to site quarantine breach or problem	<p>4.1 The specific problem and its location is identified and reported to supervisor</p> <p>4.2 Quarantine site and location of breach is cleaned and disinfected as required according to the specific nature of the problem and SOP</p> <p>4.4 Livestock, plant stock suspected of being exposed to contaminants are isolated and monitored for evidence of contamination according to SOP.</p> <p>4.5 Information about the breach or problem is recorded according to SOP</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. quarantine site	1.1. The quarantine site may be the whole farm or enterprise premises or part of the premises, such as an isolation area or sick bay. In some cases, the quarantine area may extend beyond the enterprise boundaries.
2. decontamination	2.1. Vehicle decontamination may require that all vehicles are driven through a dip of treated solution before entering the site.
3. potential contaminants	3.1. Potential contaminants may include pathogens entering on clothing/footwear, equipment, vehicles or items being delivered to the enterprise. Potential contaminants may also enter in foodstuffs, including food for animal or human consumption, vaccines, water or soil, or be brought on to the site by new livestock or pests.
4. standard operating procedures (SOP)	4.1. These may include, enterprise quality assurance manual, industry standards and quality assurance programs specific to biosecurity, production schedules, Material Safety Data Sheets, work notes, product labels, manufacturers specifications, operators manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), OHS procedures, supervisors oral or written instructions, work and routine maintenance plans.

5. pest	5.1. Pests can include vertebrate and invertebrate pests, wild birds in sheds or housing, dogs, and cats.
6. diseases	6.1. Diseases can be categorized as fungal, bacterial, viral and parasitical.
7. waste products	7.1. Waste products might include feed spills, unused/expired vaccine, and biological matter, such as semen, embryos, tissue samples, plant cuttings, infected plants, dead birds and manures.

EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p>Assessment requires evidences that the candidate :</p> <ol style="list-style-type: none"> 1.1. Applied specific quarantine procedures in place in an enterprise and to report any breaches of quarantine to supervisors. <p>The skills and knowledge required to follow site quarantine procedures must be transferable to a different work environment. For example, following site quarantine procedures in different types of enterprises or where quarantine is imposed in response to different circumstances on different occasions.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:</p> <ol style="list-style-type: none"> 2.1. Enterprise site quarantine policy and procedures 2.2. industry quality assurance requirements (where applicable) and documentation required to be kept 2.3. Reporting procedures for alleged breaches of site quarantine procedures 2.4. Consequences of breaching site quarantine procedures
<p>3. Underpinning Skills</p>	<p>To achieve the performance criteria, some complementary skills are required. These skills are:</p> <ol style="list-style-type: none"> 3.1. Read and/or interpret site quarantine procedures 3.2. Follow procedures 3.3. Communicate with visitors to the enterprise about site quarantine procedures.

4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace used for commercial livestock or cropping production, including egg production and milk harvesting, for food purposes 4.2. HACCP plan 4.3. SOP.
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. Through direct observation / demonstration 5.2. Portfolio assessment
6. Context of Assessment	<p>Assessment should be in a workplace and carried out in conjunction with assessment of other workplace competencies.</p> <ul style="list-style-type: none"> 6.1. The assessment condition requires following quality assurance procedures as part of workplace tasks. 6.2. Demonstration of competency over time and on a number of occasions.

UNIT OF COMPETENCY: COLLECT SAMPLES FOR A RURAL PRODUCTION OR HORTICULTURE MONITORING PROGRAM

UNIT CODE: AGR611326

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to collect samples as part of a rural production or horticulture monitoring program or while conducting post-mortem examination of livestock or other animals. It requires the ability to plan for collecting, prepare equipment and resources, carry out collecting, and complete collecting activities. Collecting samples requires knowledge of industry sampling and preserving guidelines and protocols, types of tissue that might be collected, environmental legislation, and sampling and preserving methods. Samples collected will usually be analyzed by laboratory staff, although collection staff may undertake some tests.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables
1 Plan for collection of samples	<p>1.1 Purpose and scope of sample collection activity is confirmed from discussion with supervisor or work instructions.</p> <p>1.2 Sample collection schedule is read/heard and confirmed with supervisor.</p> <p>1.3 Sampling site location is confirmed and, where required, approval obtained for site access following enterprise guidelines.</p> <p>1.4 Samples to be collected and preserved are identified in conjunction with supervisor or by reference to enterprise guidelines.</p> <p>1.5 Range of likely operating conditions, hazards and difficult/sensitive environments are assessed for impact on sampling and testing.</p>

<p>2 Prepare equipment and resources</p>	<p>2.1 Equipment required for sampling and preserving is sourced according to sampling procedures.</p> <p>2.2 Equipment is checked for availability and serviceability in accordance with enterprise procedures.</p> <p>2.3 Data or record sheets/books are collected for use.</p> <p>2.4 Equipment, data sheets and personnel are moved to sampling sites without injury or damage and readied for use.</p>
<p>3 Carry out sampling and preserving procedures</p>	<p>3.1 Samples are collected in accordance with sampling plan and enterprise procedures and industry protocols/guidelines.</p> <p>3.2 Samples are preserved and recorded in accordance with sampling standards and guidelines.</p> <p>3.3 Samples for external analysis are prepared, packaged and sent to laboratory in accordance with sampling schedule and laboratory standards.</p> <p>3.4 Hazardous materials are packaged and transported in accordance with legislative requirements.</p> <p>3.5 Observations including information on the surrounding area and environmental conditions are made in accordance with monitoring schedule.</p> <p>3.6 Equipment operation and work practices conform to OHS requirements.</p> <p>3.7 Collection outcomes including presentation of samples are reported and delivered in accordance to enterprise guidelines.</p>

<p>4 Complete sample collection activities</p>	<p>4.1 Equipment and clothing is cleaned, sanitised, repaired and stored in accordance with enterprise procedures.</p> <p>4.2 Damaged or malfunctioning equipment is repaired on site or sent to manufacturer or specialist.</p> <p>4.3 Sampling results and observations are accurately recorded on data sheets and forwarded in accordance with enterprise procedures.</p> <p>4.4 Changes in field conditions and equipment are conveyed to supervisor according to enterprise procedures.</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. locations	1.1. Rural production or horticultural sites, such as paddocks, farm buildings, worksites, nurseries, playing fields, dams, etc.
2. samples	2.1. A very wide variety of items may be sampled for testing, including animal tissue or fluids, plants, moulds, pests, water, soil, effluent, and emissions. Samples will generally be taken as part of an on-going monitoring program, such as an animal health program or as part of a post-mortem examination of livestock.
3. environmental legislation	3.1. Acts and regulations pertaining to environment, including threatened species.
4. equipment	4.1. Electronic machines, probes, grabs, nets, dredges, plankton nets, water sample bottles, bailer, still and video cameras, specialised machinery, identification keys and preserving equipment, kick seines, containers for holding and sorting samples, plastic buckets, blood/saliva sampling equipment, hand-held magnifying glasses, tweezers or forceps, small vegetable brushes, wading boots, rubber gloves, thermometer, yardstick, sample record and assessment form, pencils, and clipboard, and relevant field guides.
5. OHS requirements	5.1. Codes of practice, regulations and/or guidance notes, which may apply in a jurisdiction, and enterprise-specific OHS procedures, policies or standards.

EVIDENCE GUIDE

1. Critical Aspects of Competency	<p>Assessment requires evidences that the candidate :</p> <ul style="list-style-type: none"> 1.1. collected and preserved biological samples for a given site according to prescribed enterprise procedures, standards and principles, collecting schedules and industry best practice <p>The skills and knowledge required to collect and preserve samples must be transferable to a range of work environments and contexts. For example, this could include different locations, environments, samples and collecting techniques or sample collection for different purposes.</p>
2. Underpinning Knowledge and Attitudes	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this unit are listed below:</p> <ul style="list-style-type: none"> 2.1. hydrological cycle 2.2. field procedures for sampling and preservation 2.3. collecting equipment and methods 2.4. preservation equipment and processes 2.5. basic habitat assessment 2.6. water quality issues 2.7. fauna and flora recognition relevant to sampling activities 2.8. relevant legislation.
3. Underpinning Skills	<p>To achieve the performance criteria, some complementary skills are required. These skills include the ability to:</p> <ul style="list-style-type: none"> 3.1. understand and carry out instructions 3.2. use and operate relevant tools and equipment 3.3. prepare and package samples for transport to laboratory

4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace with livestock or cropping production 4.2. equipment and materials used collecting and storing samples 4.3. sampling plan 4.4. enterprise procedures relating to sampling procedures.
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. portfolio assessment
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace or in a simulated workplace. 6.2. Demonstration of competency over time

UNIT OF COMPETENCY: HANDLE BULK MATERIALS IN STORAGE AREA

UNIT CODE: AGR611327

UNIT DESCRIPTOR : This unit covers the skills and knowledge required
This competency standard covers the process of receiving, moving and sampling bulk materials in a storage area. It includes the use of safety equipment and procedures, and the repair of the facility and equipment used to store the bulk materials. Bulk materials are handled to industry standards in relation to segregation and storage conditions ensuring minimum loss or damage and optimum returns. The handling of bulk materials in storage areas is likely to be carried out under limited supervision. Overall progress may be checked periodically. The handling of bulk materials in storage areas will usually follow set routines, methods and procedures.

ELEMENT		PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables	
1	Prepare to work in bulk materials storage area	1.1	Work undertaken is interpreted from the work program where necessary, and confirmed with the management.
		1.2	OHS hazards are identified, risks assessed and suitable controls implemented.
		1.3	Suitable personal protective clothing and equipment is selected, used and maintained.
		1.4	Tools and equipment suitable for the work to be undertaken are selected, checked, and maintained if necessary.
		1.5	Environmental implications of undertaking work in the bulk materials storage area are identified, likely outcomes assessed and if necessary responsible action taken.
		1.6	Worker be informed what to do in case this type of emergency or things happen.

<p>2 Sample bulk materials for testing</p>	<p>2.1 Representative samples of bulk materials are taken for testing in line with the requirements of the bulk materials storage program.</p> <p>2.2 Sampling is undertaken safely, following the prescribed guidelines for the activity.</p> <p>2.3 Representative bulk materials samples are prepared for dispatch, accurately and clearly labelled, and packaged according to the guidelines of the organization and the analysing body.</p> <p>2.4 Samples are dispatched to the analysing body, according to the requirements of the bulk materials storage program.</p>
<p>3. Move bulk materials into and out of storage</p>	<p>3.1 Bulk materials for handling and storage are correctly identified from the written or verbal instructions.</p> <p>3.2 Bulk materials are segregated according to type, variety and quality characteristics according to the requirements of the organization as stated in the bulk materials storage program.</p> <p>3.3 Measures are taken to minimize insect and weed infestation and contamination during the movement of the bulk materials. Fumigation.</p> <p>3.4 Bulk materials are regularly checked for insect infestation and contamination during movement according to enterprise requirements.</p>

	<p>3.5 Any storage and handling equipment that is used is thoroughly cleaned after emptying, and dismantled if necessary, according to the procedures of the organization and the nature of the equipment.</p> <p>3.6 Bulk materials are moved into and out of storage according to the procedures of the organization, and following the prescribed OHS procedures.</p> <p>3.7 Silo types and handling equipment are selected for each bulk material type in relation to their storage characteristics and flow properties and according to the requirements of the bulk materials storage program.</p> <p>3.8 Suitable measures are implemented to minimize the affect of desiccant dusts on the flow properties of bulk materials. If have dust collector, the better.</p> <p>3.9 Records are clearly and accurately updated and stored as and when required by the bulk materials storage program.</p>
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<p>4 Repair and maintain storage facility</p>	<p>4.1 The need for repairs to the facility is identified through observation or instruction.</p> <p>4.2 Maintenance and repairs are conducted according to the requirements of the organization and following the prescribed OHS procedures and taking into account environmental considerations.</p> <p>4.3 Completed maintenance records and other appropriate information are documented in accordance with enterprise requirements.</p> <p>4.4 Workshop and work areas are cleaned and maintained to OHS and enterprise requirements.</p> <p>4.5 Maintenance and repairs, damage, malfunctions or irregular performance in machinery, tools and equipment are reported in line with organizational requirements.</p> <p>4.6 Tools and equipment are cleaned, secured and stored in line with OHS and organizational requirements</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. bulk materials	1.1. These might be any crop harvested in the organization (e.g., cereals, legumes, pulse crops, oilseeds and pasture seeds), animal feed or fertilizers.
2. OHS hazards	<p>2.1. Amongst the risks are operating and maintaining machinery and equipment, including hydraulics and exposed moving parts, noise, organic and other dusts, working with, transporting and storing hazardous substances (such as pesticides), using fumigants, working at heights, and working on the bulk materials mass.</p> <p>2.2. Potential emergency situations may include:</p> <p>2.3. inclement weather during operations, machinery breakdowns, storm damage to equipment and site.</p>
3. OHS risk	<p>The range of actions are both systemic and at an operational level. These are listed below.</p> <p>3.1. <i>Systems</i> should be in place to ensure the safe operation and maintenance of machinery and equipment. Precautions should also be in place to minimize exposure to noise and organic and other dusts. Systems and procedures for handling and storing bulk materials, as well as working with and around electricity should also be in place.</p> <p>3.2. <i>Fixtures</i> should be in place in all silos and storage sheds, including appropriate access ladders, handrails and ladder cages.</p> <p>3.3. <i>Personal protective equipment</i> should be selected, used and maintained.</p> <p>3.4. <i>Environmental</i> conditions should be controlled e.g., , keeping moisture</p>

	<p>levels as low as possible will reduce the likelihood of fire and silo collapse.</p> <p>3.5. <i>Procedures</i> should be in place and used for working on top of stored bulk materials, working with bulk materials mass movement and stability, working within confined working spaces, moving vehicles, working at height.</p> <p>3.6. <i>Record keeping practices</i> should ensure that requirements are met in relation to properly observing and using product labels and MSDS sheets, instruction manuals and written organizational procedures.</p>
4. personal protective clothing and equipment	4.1. Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, respirator or face mask, and sun protection (sun hat, sun screen).
5. Samples to be taken for testing	5.1. Bulk materials sampling occurs at receipt of bulk materials, regularly throughout the storage process, and immediately before dispatch.

6. bulk materials storage program	<p>6.1. The program will provide details of the bulk materials to be stored, the timeframes involved, the locations for storage, the recording and documentation requirements, the scheduling of the operation, the responsibility of the various operators to be involved, the method of pest control and the method of sampling and where samples should be sent. Details of the requirements to minimize or eliminate OHS risks, the legislative requirements in relation to all activities undertaken during bulk materials quality maintenance activities, and chemical handling procedures and guidelines would also be covered in the program.</p> <p>6.2. The bulk materials storage program would also ensure that equipment and personnel arranged for operations are appropriate to the requirements of various legislation and may include equipment for detection of fumigant in atmosphere, confined spaces equipment, pressure testing equipment, fumigant/inert atmosphere pressure bottles, fumigant generation equipment, personal protection.</p>
7. equipment to be required for sampling	<p>7.1. Equipment such as testing apparatus, sampling, measuring and sieving equipment, operational charts, calibration and identification samples, and enterprise/ client instructions.</p>
8. testing and analysis	<p>8.1. The bulk materials may be tested for purity, germination, vigour, seed weight, and/or disease identification, it may also be analyzed for moisture, insects (live and dead), weed and other commodity seeds, other foreign matter, cracked bulk materials, weather affected bulk materials, and bulk materials size.</p>

9. contamination	9.1. These may include moulds, moisture, mites, weeds, foreign seeds, insects, fungal diseases, soil and other foreign material.
10. storage and handling equipment	10.1. Handling equipment used includes silo conveyors, elevators, chutes, and augers. Other equipment used may include tractors, front-end loaders, computing equipment used by enterprise, two-way radio/ telephone, wall charts and other visual recording methods, warning devices, and ventilation/aeration equipment. Handling equipment may also be manual.
11. movement	11.1. Bulk materials movements may be for the purposes of receipt, dispatch, aeration, treatment and/or blending of bulk materials grades.
12. vehicles to be used to move the bulk materials	12.1. Vehicles may be trucks, articulated road vehicles, trailers and appropriate unloading methods applied to each type of vehicle. Vehicles may also be pulled by animal power.
13. records	13.1. Records kept may include those relating to quantities and grade(s) of materials stored, bulk materials movements and cartage documentation, weigh tally sheets, equipment and operations log sheets, and stock checks.
14. storage facility	14.1. The storage facility covers all types of temporary and permanent storage.
15. equipment that require checking and maintenance	15.1. Equipment which includes mechanical units integral to bulk materials handling equipment, e.g., gear boxes, bearings and oil levels.

16. environmental implications	16.1. Negative environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oils containers, chemical residues), dust, and hazardous substances (e.g., fuel). Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities.
17. appropriate information	17.1. Tools, spares and equipment usage, and maintenance and servicing details.
18. documented information	18.1. Record keeping systems used may be either paper-based or digital, and information will be recorded into logbooks or other records.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ul style="list-style-type: none"> 1.1. handled bulk materials in the storage area 1.2. minimized contaminants and pests 1.3. moved bulk materials efficiently <p>The skills and knowledge required to handle bulk materials in a storage area must be transferable to a different work environment. For example, across a range of pest and contaminant types that may occur in differing geographic locations or with different bulk materials.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:</p> <ul style="list-style-type: none"> 2.1. the client's sampling and classification requirements 2.2. bulk materials types and characteristics 2.3. common bulk materials pests sand problems 2.4. appropriate legislative requirements, manufacturers instructions and enterprise procedures/instructions 2.5. appropriate action in contingency situations 2.6. silo operations and configuration, machinery and operating practices 2.7. organization requirements for protective equipment and safe practices in relation to OHS 2.8. organization and industry guidelines for segregation of bulk materials quality assurance principles 2.9. pre-operational and safety checks, servicing and maintenance procedures for tools and equipment

	<p>2.10. potential hazards associated with the operation of basic tools and equipment</p> <p>2.11. general machine maintenance procedures</p> <p>2.12. machinery operating principles and operating methods</p> <p>2.13. machinery storage and protection methods</p> <p>2.14. relevant Provincial/municipal legislation, regulations and codes of practice with regard to workplace OHS, and the use and control of machinery and equipment</p> <p>2.15. environmental impacts associated with the operation of machinery and equipment</p> <p>2.16. personal protective clothing and equipment and when and how it should be used</p> <p>2.17. cleaning and storage of machinery, equipment and materials</p> <p>2.18. enterprise recording and reporting procedures.</p>
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3. Underpinning Skills	<p>To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:</p> <ul style="list-style-type: none"> 3.1. record bulk materials stocks and movements 3.2. conduct silo readings 3.3. identify bulk materials pests and damage 3.4. use communication systems 3.5. sample and conduct a simple analysis of bulk materials 3.6. check equipment and storage facilities and identify current or impending faults 3.7. handle and manoeuvre equipment 3.8. test bulk materials for moisture, contamination and quality 3.9. complete pre-operational checks on basic tools and equipment 3.10. perform routine safety, service and maintenance procedures on tools, equipment and machinery 3.11. operate hand and independently powered tools and cleaning equipment to industry standards 3.12. clean, secure and store machinery and equipment 3.13. handle hazardous substances (fuels) safely 3.14. read and interpret manufacturers specifications, work and maintenance plans, and Material Safety Data Sheets 3.15. interpret and apply task instructions, communicate with work team and supervisor, and record and report faults, workplace hazards and accidents
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4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace with bulk handling facilities for example for storing feeds, harvested crop or fertilizers 4.2. workplace information relating to quality assurance, bulk handling and storage. 4.3. enterprise procedures relating to load shifting, and storage.
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. checking supporting workplace records.
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace. 6.2. Demonstration of competency over time and on a number of occasions.

UNIT OF COMPETENCY: PREPARE GRAIN STORAGES

UNIT CODE: AGRA611328

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to safely maintain the site, the storage and equipment for handling, and storage of bulk materials. At the completion of the work described in this standard, storages, surrounding areas and equipment are prepared in readiness for receiving grain at an acceptable level of hygiene.

Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and co-ordination within a team may be required. Preparing bulk material storages is usually within established routines, methods and procedures. Competency at this level involves the application of knowledge and skills in the maintenance of facilities, tools and equipment.

ELEMENT		PERFORMANCE CRITERIA <i>Italicized Bold terms are elaborated in the Range of Variables</i>
1	Prepare to work in bulk material storage area	<p>1.1 Work to be undertaken is understood from work program where necessary, and confirmed with supervisor.</p> <p>1.2 OHS hazards are identified, risk assessed and suitable controls implemented.</p> <p>1.3 Suitable personal protective equipment is selected, used and maintained.</p> <p>1.4 Tools and equipment suitable for the work to be undertaken are selected, checked and maintained, if necessary.</p> <p>1.5 Environmental implications of undertaking work in the bulk material storage area are identified, likely outcomes assessed and, if necessary, responsible action taken.</p>

2	Prepare storage area	<p>2.1 Storage site is cleaned of weeds, dust and spillage to organization requirements.</p> <p>2.2 Refuse is disposed of according to regulatory requirements.</p> <p>2.3 Site is maintained in a clean and tidy condition according to organization requirements.</p> <p>2.4 Storage site is prepared according to OHS standards.</p>
3	Prepare storages	<p>3.1 Storages are prepared according to OHS standards.</p> <p>3.2 Bulk material storages are cleaned of all residues according to organization requirements.</p> <p>3.3 Bulk material storages are checked for structural safety, damage or deterioration, and repaired or reported as required according to organization requirements.</p> <p>3.4 Temporary storages are prepared and erected to meet the needs of the organization according to OHS standards.</p>
4	Prepare bulk material handling machinery	<p>4.1 Bulk material handling machinery is cleaned free of contamination and residues according to organization requirements.</p> <p>4.2 Bulk material handling equipment is adjusted and set according to organization requirements.</p> <p>4.3 Bulk material handling equipment is prepared ready for use according to manufacturers instructions and OHS standards.</p>
5	Complete maintenance operations	<p>5.1 Workplace information is recorded clearly and accurately in the format and at the time required by the organization.</p> <p>5.2 Waste is collected and disposed of or recycled to minimise damage to the external environment.</p> <p>5.3 Tools and equipment are cleaned and stored according to organization work procedures.</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. OHS hazards	<p>1.1. Among the risks are operating and maintaining machinery and equipment, including hydraulics and exposed moving parts, noise, organic and other dusts, working with, transporting and storing hazardous substances (such as pesticides), using fumigants, working at heights, and working on the bulk material mass.</p>
2. OHS risk	<p>The range of actions are both systemic and at an operational level. These are listed below.</p> <p>2.1. <i>Systems</i> should be in place to ensure the safe operation and maintenance of machinery and equipment. Precautions should also be in place to minimise exposure to noise and organic and other dusts. Systems and procedures for handling and storing bulk material, as well as working with and around electricity, should also be in place.</p> <p>2.2. <i>Fixtures</i> should be in place in all silos and storage sheds, including appropriate access ladders, hand rails and ladder cages and fine control equipment.</p> <p>2.3. <i>Environmental</i> conditions should be controlled. For example, keeping moisture levels as low as possible will reduce the likelihood of fire and silo collapse.</p> <p>2.4. <i>Procedures</i> should be in place and used for working on top of stored bulk material, working with bulk material mass movement and stability, working within confined working spaces, moving vehicles, and working at height.</p> <p>2.5. <i>Record keeping</i> should ensure that requirements in relation to properly observing and using product labels and MSDS sheets, instruction manuals and written organizational procedures.</p>

3. personal protective clothing and equipment	3.1. Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, respirator or face mask, and sun protection (sun hat, sun screen).
4. equipment	4.1. Cleaning equipment for hand use, air compressors, vacuum cleaners, mobile load handling plant, mowers/slathers, loading and unloading equipment, tractors, and portable augers, fire suits and hydrants should be in place.
5. Preparation for cleaning and mobile equipment?	5.1. Site cleaning and mobile equipment use includes pre-operational checks, start-up, shutdown, and minor servicing to organization requirements.
6. bulk materials	6.1. Bulk materials stored may include the entire range produced or used by the organization and may include grains (cereals, legumes, pulses, oilseeds, or pasture seeds), animal feed (e.g. meal), flour and fertilizers.
7. storage	7.1. They may be permanent and/or temporary storages, fixed and/or portable commodity handling equipment, the surrounding areas, entry, exit and site roads.
8. cleaning activities	8.1. They are the handling of equipment, storage facilities, buildings and surrounding grounds.
9. cleaning and maintenance	9.1. On the storage site, it will be aspects of site tidiness and cleanliness, weed control, and cleaning of spilled materials and rubbish.
10. Maintained	10.1. The presence of water or water damage, presence and activity of pests including insects, moulds, birds and rodents, dead vertebrate pest in storage, breakdown of storage security and integrity, e.g. holes, cracks, poor sealing or general physical deterioration, storm damage, and/or level of hygiene will need to be seen to.
11. workplace information	11.1. Records may include environmental parameters, date of maintenance work, and what has been checked/maintained.

12. waste	12.1. Waste may include left over treatments, unused containers, general debris, or discarded components.
13. external environment	13.1. Environmental implications may include the contamination of off-site ground water or soils from solids, debris, nutrients or chemicals, foul smell should be reduced, air pollution.
14. organizations and statutory instructions	14.1. They might be those relating to health and safety, quality control, administrative reporting, commodity storage and movement control, residual fumigants and confined space entry.
15. Potential emergency situations	15.1. Inclement weather during operations, machinery breakdowns, and storm damage to equipment and site & workers not in good condition to work.

EVIDENCE GUIDE

<p>1. Critical aspects of competency</p>	<p>Assessment requires evidences that the candidate</p> <ol style="list-style-type: none"> 1.1. prepared bulk material storage - that the storage facility, the surrounding area, and the bulk material handling equipment are cleaned, operable, and within the hygiene standards required by the organization. <p>The skills and knowledge required to prepare bulk material storage must be transferable to a different work environment. For example, across a range of storage facility types, materials and enterprise guidelines.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:</p> <ol style="list-style-type: none"> 2.1. range of construction methods, potential hazards, safety and structural requirements for storage 2.2. erection/dismantling for types of temporary storage used by organization 2.3. organization and commodity quality requirements 2.4. .organization hygiene requirements 2.5. typical signs of damage to be documented and reported 2.6. appropriate legislative requirements, manufacturers instructions and organization procedures/ instructions 2.7. appropriate action in contingency situations 2.8. organization requirements for protective equipment and safe practices in relation to OHS 2.9. pre-operational and safety checks, servicing and maintenance procedures for tools and equipment 2.10. potential hazards associated with the operation of basic tools and equipment 2.11. general machine maintenance procedures 2.12. machinery operating principles and

	<p>operating methods/manual of operational procedures.</p> <p>2.13. machinery storage and protection methods</p> <p>2.14. relevant Provincial/municipal legislation, regulations and codes of practice with regard to workplace OHS, and the use and control of machinery and equipment</p> <p>2.15. environmental impacts associated with the operation of machinery and equipment</p> <p>2.16. personal protective clothing and equipment and when and how it should be used</p> <p>2.17. cleaning and storage of machinery, equipment and materials</p> <p>2.18. organization recording and reporting procedures.</p>
3. Underpinning Skills	<p>To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These skills are:</p> <p>3.1. erect simple temporary bulk material storages</p> <p>3.2. use communication systems</p> <p>3.3. check equipment and storage facilities, and identify current or impending faults</p> <p>3.4. handle and manoeuvre equipment</p> <p>3.5. complete pre-operational checks on basic tools and equipment</p> <p>3.6. perform routine safety, service and maintenance procedures on tools, equipment and machinery</p> <p>3.7. operate hand and independently powered tools and cleaning equipment to industry standards</p> <p>3.8. clean, secure and store machinery and equipment</p> <p>3.9. perform basic trouble shooting</p> <p>3.10. recognize and rectify minor operational faults</p> <p>3.11. handle hazardous substances (fuels) safely</p> <p>3.12. read and interpret manufacturers specifications, work and maintenance plans, and Material Safety Data Sheets</p>

	3.13. interpret and apply task instructions, communicate with work team and supervisor, and record and report faults, workplace hazards and accidents.
4. Resource Implication	The following resources must be provided: 4.1. workplace with grain storage facilities 4.2. mechanical or manual aids for load shifting 4.3. enterprise procedures.
5. Methods of Assessment	Competency should be assessed: 5.1. Through direct observation / demonstration 5.2. Portfolio assessment
6. Context of assessment	6.1. Assessment should be in a workplace or in a simulated workplace. 6.2. Demonstration of competency over time and on a number of occasions.

UNIT OF COMPETENCY: COMPLY WITH INDUSTRY QUALITY ASSURANCE REQUIREMENTS

UNIT CODE: AGR611329

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to comply with industry quality assurance requirements in the production of meat, milk or eggs. It requires the ability to implement quality assurance practices on food safety, quality, and animal welfare, biosecurity, implement standard operating procedures, and report problems that affect quality. Complying with industry quality assurance requirements requires knowledge of industry quality assurance requirements, animal production processes, Hazard Analysis Critical Control Point (HACCP) approach to quality assurance, and enterprise policies, guidelines and standard operating procedures relating to food safety, quality and animal welfare.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables
1 Implement quality assurance practices on food safety and quality, biosecurity and animal welfare	1.1 <i>Elements</i> of the industry quality assurance requirements are determined. 1.2 <i>Hazards</i> to <i>food</i> safety and quality are identified for work area according to enterprise guidelines and standard operating procedures. 1.3 Critical control points for work area are determined according to workplace procedures. 1.4 Record keeping is completed according to industry QA requirements.

<p>2 Implement standard operating procedures</p>	<p>2.1 Standard operating procedures are implemented in accordance with enterprise requirements.</p> <p>2.2 Non-conforming or defective product reported to supervisor according to enterprise/industry requirements.</p> <p>2.3 Corrective action taken in accordance with enterprise policy and procedures.</p>
<p>3 Report problems that affect quality</p>	<p>3.1 Recognize potential or existing quality problems.</p> <p>3.2 Identify instances of variation in quality from specifications or work instructions.</p> <p>3.3 Report variation and potential problems to supervisor/manager according to enterprise guidelines.</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. food	1.1. Meat, milk and eggs.
2. elements of the QA system	2.1. These include Hazard Analysis Critical Control Point (HACCP) charts, mission statement, work instructions, corrective action and monitoring procedures, standard operating procedures, enterprise and industry policies and codes of practice.
3. hazards	<p>These may include:</p> <ul style="list-style-type: none">3.1. Physical hazards where foreign objects such as retained, broken needles, welding rods, nails or wire are present in animals.3.2. Chemical hazards resulting from residues such as antibiotics, pesticides, alkaloids and other substances used in animal production.3.3. Biological hazards where contamination from other animals (e.g. mice, rats, cats), poor housing/transport conditions, and dirty water affects animal health and food quality.3.4. Food quality hazards resulting from poor handling of animals, unhealthy or diseased animals, inappropriate use of dogs, extreme weather conditions, poor loading and transport conditions, and time off feed.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ul style="list-style-type: none"> 1.1. complied with industry quality assurance requirements in an animal production enterprise. <p>The skills and knowledge required to comply with industry quality assurance requirements must be transferable to a range of work environments and contexts. For example, this could include different animals, production systems, and industry QA requirements.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this unit are listed below:</p> <ul style="list-style-type: none"> 2.1. industry QA requirements, such as the Philippine Pig Industry Quality Program (APIQ) 2.2. animal production processes 2.3. HACCP (Hazard Analysis Critical Control Point) approach to quality assurance 2.4. enterprise policies, guidelines and standard operating procedures (SOP's) relating to food safety quality, biosecurity, and animal welfare. 2.5. enterprise OHS requirements 2.6. animal health and welfare.

3. Underpinning Skills	<p>To achieve the performance criteria, some complementary skills are required. These skills include the ability to:</p> <ul style="list-style-type: none"> 3.1. implement quality assurance practices on food safety and quality, biosecurity and animal welfare 3.2. implement standard operating procedures 3.3. report problems that affect quality.
4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace that produces meat, eggs or milk (requiring a HACCP food safety plan) 4.2. HACCP plan 4.3. enterprise procedures HACCP and food safety
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. portfolio assessment
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace or in a simulated workplace. 6.2. Demonstration of competency over time

UNIT OF COMPETENCY: MAINTAIN AND MONITOR ENVIRONMENTAL WORK PRACTICES

UNIT CODE: AGR611330

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to maintain and monitor positive environmental work practices. It requires the ability to recognize basic environmental hazards and threats. It includes the ability to follow and give workplace directions and instructions by communicating accurately with supervisors and workplace colleagues, and to keep records. Maintaining and monitoring environmental work practices requires awareness of, and an ability to implement relevant environmental legislation, policies and workplace/industry practices.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables
1 Maintain workplace environmental procedures	1.1 <i>Workplace procedures and work instructions</i> for integrated environmental work practices for own work area are <i>recognized, followed</i> and conveyed to team members. 1.2 Relevant <i>legislation, codes and national standards</i> that impact on workplace environmental practices are recognized, conveyed to team members and followed.
2 Recognize and report on potential environmental threats	2.1 Existing and <i>potential environmental risks and hazards</i> are identified, reported to <i>designated personnel</i> and dealt with. 2.2 Location and extent of the potential environmental threat are accurately recorded. 2.3 Reports on the potential environmental threat are completed according to enterprise guidelines.

<p>3 Support continuous improvement of environmental work practices</p>	<p>3.1 Information is gathered and improvements are suggested to support the development of improved environmental workplace practices.</p> <p>3.2 Environmental issues and their relationship to workplace practices are discussed in the workplace.</p> <p>3.3 Changes to workplace approaches to environmental practices are responded to positively and promptly in accordance with enterprise requirements.</p> <p>3.4 Individuals/teams are informed of the results of environmental improvements in the workplace.</p> <p>3.5 Environmental training needs of the work team are identified, and training is sought where required.</p>
<p>4 Maintain environmental records</p>	<p>4.1 Environmental records are accurately and legibly maintained and stored securely in a form accessible for reporting purposes.</p> <p>4.2 Internal and external reporting procedures are identified and maintained.</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. workplace procedures	1.1. These could include written procedures or work instructions for environmental hazard and risk identification, avoiding or minimising environmental risks, improving environmental performance, waste minimisation and segregation, environmental monitoring, signs and labels (e.g. chemical labels), emergency procedures, hazard and incident recording and reporting procedures, and environmental data recording and reporting procedures where applicable. Verbal instructions from persons with responsibility related to environmental work practices are also included in this definition.
2. environmental policies	2.1. Waste minimisation and management, sustainability, local, regional, State and National strategies on weed and pest management, protection of land and habitat and the conservation of resources, energy use, greenhouse gas emissions, use of chemicals, and plant and equipment.
3. recognize and follow mean	3.1. That a person will acknowledge that environmental impacts, hazards and risks exist, and that they have a responsibility to work in a manner which will minimize the impact on the environment within the guidelines established by the workplace.
4. legislation, codes and national standards	4.1. Award and enterprise agreements, relevant environmental legislation from all levels of government, Philippine standards, international agreements and relevant industry codes of practice.
5. report	5.1. Verbally (face-to-face or through communication equipment) and in writing (notes, faxes, email or electronic messages).

6. environmental risks and hazards	6.1. These could include spills, leaks, pollution, planned and unplanned emissions, soil compaction, disturbance and erosion, accidents and disposal of waste, and damage or disruption to ecosystems resulting from work practices. Also includes plants, animals or diseases that are classified as an environmental threat or problem in an area, unauthorised changes in land use, fire risks and threats, and inappropriate human interaction on the environment. This may include damage to habitat resources, disruption of animal behaviour and territorial use, illegal vegetation clearance, seed collection, firewood gathering, nest disturbance and egg collecting.
7. designated personnel in a workplace?	7.1. Manager, supervisor, and people who are responsible for work area or who may be assigned to act as a mentor/trainer to a person under instruction.
8. suggestions	8.1. Ideas to minimize hazards and risks, reduce waste, make more efficient use of resources and improve environmental performance, reduce soil disturbance and improve habitat resources.
9. environmental issues	9.1. Sustainability, reduction and disposal of waste, water quality, energy efficiency, biodiversity and habitat protection, conservation of natural resources, air quality, land contamination, noise, soil and salinity management, and fire management.

10. workplace approaches to environmental practices	10.1. Preventing and minimising the production of pollution (e.g. discharges to air, land and water, hazardous waste, reducing 'burning off', composting, recycling materials, conservation practices), and improving workplace maintenance practices (e.g. using a broom instead of a hose, using environment-friendly cleaning agents).
11. environmental records	11.1. Environmental data, maintenance and inspection reports, incident or accident reports, and complaints from the public.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ol style="list-style-type: none"> 1.1. monitored and maintained environmental work practices - that skills and knowledge have been successfully and appropriately applied and demonstrated in a work place or equivalent situation <p>The skills and knowledge required to monitor and maintain environmental work practices must be transferable to a range of work environments and contexts. For example, this could include different workplaces, environmental hazards and risks, and workplace practices and procedures.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this unit are listed below:</p> <ol style="list-style-type: none"> 2.1. relevant legislation from all levels of government on environmental issues 2.2. relevant environmental policies and workplace/industry practices and procedures 2.3. good practice approaches relevant to work area particularly in regard to minimising environment hazards and risks, and improving environmental performance 2.4. environmental issues, especially in regard to water catchments, air, noise, ecosystems, habitat, efficient use of resources, sustainability and waste minimisation 2.5. potential environmental threats and problems relevant to a given region and occupation 2.6. general work place practices and their potential impact on the environment.

3. Underpinning Skills	<p>To achieve the performance criteria, some complementary skills are required. These skills include the ability to:</p> <ul style="list-style-type: none"> 3.1. communicate with supervisors and workplace colleagues 3.2. recognize environmental hazards and threats 3.3. act upon environmental hazards and threats by following enterprise procedures legislative requirements 3.4. instruct/advise others to follow enterprise procedures and legislative requirements 3.5. follow workplace directions and instructions 3.6. keep environmental records.
4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace 4.2. enterprise policies and environment related procedures
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. checking workplace records and production plans
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace. 6.2. Demonstration of competency over time

UNIT OF COMPETENCY: KEEP RECORDS FOR A FARM BUSINESS

UNIT CODE: AGR611331

UNIT DESCRIPTOR : This unit covers the skills and knowledge required. This competency standard covers the process of creating and maintaining physical records, preparing and processing basic financial transactions, establishing and maintaining a cashbook, and reconciling and preparing invoices within primary production businesses. Both the physical and financial records of the business are vital for use by management for planning purposes, meeting legislative requirements, and the efficient operation of the business on a daily basis.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables
1 Prepare and store physical records	<p>1.1 <i>Physical records</i> and inventories required for the organization are determined in consultation with the <i>management team</i>.</p> <p>1.2 <i>Methods for collecting information</i> are reliable, and time and resources are used efficiently.</p> <p>1.3 Appropriate <i>interpersonal skills</i> are used to access relevant information from individuals and teams.</p> <p>1.4 Information is organized into a <i>format</i> suitable for analysis, interpretation and dissemination in accordance with organizational requirements.</p> <p>1.5 <i>Business equipment/technology</i> is used to maintain information in accordance with organizational and OHS requirements.</p> <p>1.6 Records are updated and stored in accordance with organizational requirements.</p>

2	Process petty cash transactions	<p>2.1 Petty cash claims and vouchers are checked for accuracy and authenticity prior to processing.</p> <p>2.2 Petty cash transactions are processed and recorded in accordance with organizational requirements.</p> <p>2.2 Petty cash book balanced in accordance with organizational requirements.</p>
3	Establish and maintain a cash book in accordance with organizational requirements	<p>3.1 Cash receipts and payments book created, and documentation relating to financial transactions checked for validity prior to processing.</p> <p>3.2 Cashbook balances reconciled with bank and creditor statements.</p> <p>3.3 Cashbook balances are used to complete legislative reporting requirements.</p> <p>3.4 Cash flow statements are prepared on the basis of summarised cashbook entries.</p>
4	Reconcile invoices for payment to creditors	<p>4.1 Adjustments and errors are identified, reported and rectified in accordance with organizational requirements.</p> <p>4.2 Invoices processed and payment made in accordance with organizational requirements.</p>
5	Prepare invoices for debtors	<p>5.1 Invoices are prepared accurately and, if required, distributed to nominated person for verification prior to despatch.</p> <p>5.2 Adjustments are made as required in accordance with organizational requirements.</p> <p>5.3 Invoices and other related documents copied and filed in accordance with organizational requirements for taxation and auditing purposes.</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. physical records	1.1. Records may include a property plan, livestock, paddock treatments including spraying, paddocks, rainfall, production, sales data, supplies, machinery and equipment, and stock.
2. management team	2.1. They may be oneself, family members, fellow managers, employees, professional advisors, partners, and mentors.
3. methods for collecting information	3.1. Methods for collecting information may include observation and listening, previous file records, individual research, statistics and reports from other organizations, producing reports from data collected on the farm, translating data from diaries and notebooks, or professional data collection agency.
4. interpersonal skills	4.1. Interpersonal skills may include effective listening, open questioning techniques, verbal and non verbal communication skills, appropriate body language, and the ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities.
5. format	5.1. Format for records and inventories could include maps, graphs, charts, cards, electronic, databases, diaries, or notebooks.
6. business equipment/ technology	6.1. Business equipment and technology that might be used include computer, software, Internet, email, calculator, fax or phone.
7. checking for accuracy and authenticity	7.1. Checking may include correct information on voucher, receipt of purchase, and ensuring items are business related.

8. cashbook	8.1. A cashbook documents the daily receipts and payments of the business. It may be created and maintained manually and/or electronically.
9. documentation requires checking for validity	<p>9.1. Documentation may include cheques, taxation invoices, accounts, and credit card vouchers.</p> <p>9.2. Validity may include checking date, signature, details on cheque are correct, expiry date of credit cards, information on taxation invoice, and accounts are accurate.</p>
10. legislative reporting requirements	10.1. Legislative reporting requirements may include recording Philippine Business Number (ABN), business activity statements (BAS), instalment activity statements (AIS), PAYG withholding, superannuation, taxation, or work cover.
11. cash flow statements	11.1. Cash flow statements summarise the organizations actual and expected cash flow over designated periods of time. Budgets allocate income against expenses. Both types of statements can be created manually or electronically.
12. creditors and debtors	12.1. Creditors and debtors may include financial institutions, goods and service suppliers, rural merchants, contractors, professional advisors, and co-operatives.
13. taxation and auditing requirements	13.1. Taxation and auditing requirements would include accurate records of all business assets, liabilities, income, expenses and entitlements to be analyzed by an accountant for compliance purposes.

14.transactions	14.1. Financial transactions may include purchasing and selling products, machinery and equipment, vehicles and supplies, banking cheques, paying invoices and bills, or transferring funds electronically.
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EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ul style="list-style-type: none"> 1.1. created, maintained and stored financial records in accordance with legislative and organizational requirements. 1.2. processed and recorded financial transactions involving cash, electronic funds transfer, cheques and invoices accurately in accordance with legislative and organizational requirements <p>The skills and knowledge required to keep records in a rural business must be transferable to a different work environment. For example, across a wide range of small, medium and large agricultural and horticultural businesses.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:</p> <ul style="list-style-type: none"> 2.1. nature of the business and its legal and organizational structure 2.2. relevant national, provincial and municipal government legislative requirements, especially in regard to OHS and environmental requirements 2.3. organizational policies and procedures relating to the distribution of workplace information, legal and ethical obligations 2.4. methods to identify sources of information 2.5. procedures to analyze information to identify patterns and trends 2.6. the organizations record keeping/filing systems, security of information and safe record keeping procedures

	<p>2.7. principles of effective interpersonal communication</p> <p>2.8. principles and procedures for cash and non cash handling</p> <p>2.9. principles of single entry accounting, and cash flow statements.</p>
3. Underpinning Skills	<p>To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:</p> <p>3.1. relate to people from a range of social, cultural and ethnic backgrounds, and of varying physical and mental abilities</p> <p>3.2. collect and record accurate and reliable information</p> <p>3.3. present data in a format suitable for the organizations requirements</p> <p>3.4. use business equipment and technology correctly and safely</p> <p>3.5. file records accurately in accordance with organizational requirements</p> <p>3.6. perform calculations and balance accounts</p> <p>3.7. prepare cash flow statements and budgets</p> <p>3.8. reconcile creditors invoices and prepare debtors invoices</p> <p>3.9. process forms and other documentation.</p>

4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace 4.2. source records for farm 4.3. farm procedures processing income and expenses, and reporting
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. portfolio assessment
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace or in a simulated workplace. 6.2. Demonstration of competency over time

UNIT OF COMPETENCY: PERFORM SPECIALISED MACHINERY AND EQUIPMENT MAINTENANCE

UNIT CODE: AGR611332

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to maintain specialized machinery and equipment. Specialized machinery and equipment refers to machinery and equipment used principally in agriculture and horticulture, work where there is high wear and tear on components. It requires the ability to carry out engine and equipment checks, undertake transmission checks, maintain high wear components and attachments, and record maintenance work. Performing specialized machinery maintenance requires knowledge of general machine function principles and maintenance, and operational replacement wear component requirements and procedures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold terms are elaborated in the Range of Variables</i>
1 Carry out prime mover checks	<p>1.1 Regular <i>prime mover</i> checks are carried out on <i>specialised machinery and equipment</i> as specified in operator's manual. After use check-up.</p> <p>1.2 All relevant grease or lubricant points are lubricated according to manufacturers' specifications. Regular periodic check-up.</p> <p>1.3 Oils and filters are changed at intervals prescribed in operator's manual.</p> <p>1.4 Systems (i.e. cooling, electrical, lubrication, etc.) checked for deterioration and took action to defects in line with supervisor's instructions.</p> <p>1.5 <i>OHS hazards</i> in the workplace are identified, risk assessed and reported according to enterprise requirements.</p>

<p>2 Carry out transmission checks</p>	<p>2.1 Drive and steering clutches are checked for operation and adjustment in line with operator's manual.</p> <p>2.2 Transmission oil levels are checked in line with operator manual.</p> <p>2.3 Tracks/wheels and undercarriage are checked for oil leaks, wear and alignment.</p> <p>2.4 Faulty seals or leaks are identified and corrective actions taken according to operator's instructions.</p> <p>2.5 Transmission is regularly checked for: alignment in case of belt transmission oil levels in case of enclosed transmission.</p>
<p>3 Maintain components and attachments</p>	<p>3.1 Suitable personal protective equipment is selected, used, maintained and stored according to OHS requirements.</p> <p>3.2 Machine operational replacement wear components are checked for wear and condition.</p> <p>3.3 Worn or unserviceable replacement components are replaced as part of daily routines.</p> <p>3.4 Component inspection and replacement activities are completed safely following enterprise and industry guidelines.</p> <p>3.5 Moving operational components are checked for wear and condition and adjusted to the tolerances specified in the operator's manual where applicable.</p> <p>3.6 Work areas are cleaned, returned to operating condition and maintained according to enterprise and OHS requirements.</p>

<p>4 Record maintenance</p>	<p>4.1 Identified faults and defects are recorded in machine record.</p> <p>4.2 Maintenance procedures including duplicates usage are recorded in workshop record.</p> <p>4.3 Service or repair requirements are reported and took action according to prescribed procedures.</p>
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RANGE OF VARIABLES

VARIABLE	RANGE
1. specialised machinery and equipment	1.1. Self-propelled machinery and equipment for crop production (i.e. land levellers, front end loaders); harvesting (i.e. cane harvester, rice combine, corn harvester, etc.) and post-harvest machinery (i.e. rice mill plant, drying plant, etc.)
2. prime movers	2.1. This may include the internal combustion engines or electric motors.
3. hazards	3.1. Workplace hazards may include exposure to loud noise and fumes, solar radiation, dust, and hazardous substances. It may also include oil and grease spills, electricity, mechanical malfunctions and entanglement with machinery and equipment from exposed moving parts including hydraulics.
4. personal protective equipment	4.1. This may include boots, hat/hard hat, overalls, gloves, protective eyewear, safety harness, hearing protection, respirator or dust mask, and sun protection (sun hat, sunscreen).

5. OHS	<p>Safe systems and procedures for:</p> <ul style="list-style-type: none"> 5.1. operating and maintaining machinery and equipment including hydraulics and guarding of exposed moving parts. 5.2. hazard and risk control. 5.3. manual handling including lifting and carrying. 5.4. the provision of safety decals and signage. 5.5. handling, application and storage of hazardous substances. 5.6. outdoor work including protection from solar radiation, dust and noise. 5.7. lock out or danger tag procedures. 5.8. protection of people in the workplace. 5.9. the appropriate use, maintenance and storage of personal protective clothing and equipment.
6. regular maintenance checks	<ul style="list-style-type: none"> 6.1. Gauges, fan, engine oil, air cleaners (wet and dry), visible gaskets, exhaust colour, tyres, tracks, track rollers and carriers, fuel and oil filters, crankcase ventilation, cooling systems, belts and chains, transmission, gearbox, hydraulic hoses, hydraulic systems, final drives, oilers, batteries and electrical systems, level linkage wear, oil and fuel leaks, brakes, Rollover Protection Systems/safety guards, guards over exposed parts, sources of hazardous noise.
7. machinery and equipment maintenance	<ul style="list-style-type: none"> 7.1. Operating checks, daily checks, programmed maintenance, breakdown maintenance, prescribed lubrication.
8. transmission	<ul style="list-style-type: none"> 8.1. Clutches, gearbox, direct drive and power shaft transmission, torque converter, final drives, includes universal Joints, drive links.

9. tracks/wheels and undercarriage	9.1. Sprockets, idler wheels, track roller frames, track rollers, carrier rollers, track chains, track shoes and grousers, tyre pressure, power transfer links and abnormal wear patterns.
10. engine equipment	10.1. Oil/coolant levels, filters, oil, air, fuel, and air conditioner.
11. machine operational replacement wear components	11.1. Ground engaging components, buckets, blades, cutter teeth and forks and other components specified in the operator's manual.
12. moving operational components	12.1. Elevator and loading chains, cutters/knives, belts and other components specified in the operator's manual.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ol style="list-style-type: none"> 1.1. Maintained specialised machinery and equipment according to enterprise guidelines and industry best practice <p>The skills and knowledge required to maintain specialised machinery and equipment must be transferable (normal and adverse work conditions) to a range of work environments and contexts. For example, this could include different machinery and equipment, operational systems, maintenance procedures and working environments</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below.</p> <ol style="list-style-type: none"> 2.1. Engine function principles. 2.2. Turbo charging and after cooling. 2.3. Assessing engine specifications in line with power requirements. 2.4. All engine electric and hydraulic indicators and gauges. 2.5. Transmission and drive systems. 2.6. Safety including relevant OHS issues, OHS legislative requirements and Codes of Practice. 2.7. Machinery and equipment operation principles. 2.8. OHS responsibilities of employees and employers. 2.9. Hazard identification and control.

3. Underpinning Skills	<p>To achieve the performance criteria, some complementary skills are required. These skills include the ability to:</p> <ul style="list-style-type: none"> 3.1. read and comprehend operator's manuals 3.2. carry out engine/equipment checks 3.3. carry out transmission checks. 3.4. maintain machinery and equipment components. 3.5. record maintenance.
4. Resource Implication	<ul style="list-style-type: none"> 4.1. Specialised equipment 4.2. Manufacturer specifications 4.3. Operator guidelines/manuals 4.4. Tools and equipment used for maintenance 4.5. Spare parts and materials used in maintaining specialised machinery 4.6. Maintenance procedures 4.7. Workplace documentation
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. Through portfolio evidence
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace. 6.2. Demonstration of competency over time and on a number of occasions. It should address a range of equipment that is reflective of the workplace.

UNIT OF COMPETENCY: INSTALL IRRIGATION SYSTEMS

UNIT CODE: AGR611333

UNIT DESCRIPTOR : This unit covers the skills and knowledge required to install pressurised irrigation systems. It requires the ability to organize resources for installation work, set out and prepare site, install irrigation components, complete installation work, commission irrigation systems and communicate with work team members, supervisors, contractors and consultants. Installing irrigation systems requires knowledge of methods and techniques of irrigation, components of an irrigation system, behaviour of water on varying terrain and soil types, soil water retention testing techniques and soil characteristics, and enterprise OHS procedures.

ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables
1 Organize resources for installation work	<p>1.1 <i>Materials, tools, equipment and machinery</i> are selected according to the irrigation system design requirements and enterprise work procedures.</p> <p>1.2 The construction site for <i>the irrigation system</i> and construction method is identified according to the site and irrigation system plans and <i>enterprise work procedures</i>.</p> <p>1.3 Parts and <i>equipment</i> delivered to site are checked according to system drawings and specifications.</p> <p>1.4 Pre-operational and safety checks are carried out on tools, equipment and machinery according to manufacturers specifications and enterprise work procedures.</p> <p>1.5 <i>OHS hazards</i> are identified, risks assessed, controls implemented and reported to the supervisor.</p>

	<p>1.6 Suitable safety and personal protective equipment (PPE) are selected, used and maintained.</p> <p>1.7 Water supply is checked to ensure that it is compatible with system specifications.</p>
2 Set out and prepare site	<p>2.1 Measurement and marking out of irrigation lines are consistent with the plan.</p> <p>2.2 Trenches where constructed are at the specified depth without damage to services, facilities, features and established plants.</p> <p>2.3 Equipment operation and work practices conform to enterprise and legislative OHS requirements.</p> <p>2.4 Regulations and legislation relevant to the situation are observed.</p> <p>2.5 Work practices reflect sustainable horticulture principles and respond to local community requirements.</p>
3 Install irrigation components	<p>3.1 Plan is interpreted and where applicable, contractors are supervised and work is monitored to conform to the plan.</p> <p>3.2 Components are assembled and connected according to the plan, joints are completed and tested according to manufacturers specifications.</p> <p>3.3 Fittings and valves are fitted and adjusted to the requirements of the installation plan, and all joints are secured according to enterprise guidelines.</p> <p>3.4 A clean and safe work area is maintained while installation work is carried out.</p> <p>3.5 Tools appropriate to the task being undertaken are chosen and used according to guidelines and safe working practices are employed.</p>

<p>4 Complete installation work</p>	<p>4.1 Earthworks are finished off to plan specifications and enterprise work procedures.</p> <p>4.2 The system configuration and capacity matches the installation plan.</p> <p>4.3 The site is restored and waste material is removed from the site and disposed of in an environmentally aware and safe manner according to enterprise work procedures.</p> <p>4.4 Tools, equipment and machinery are cleaned, maintained and stored according to enterprise work procedures</p>
<p>5 Commission irrigation system</p>	<p>5.1 Start-up sequence is in accordance with operations manual.</p> <p>5.2 System is flushed as required.</p> <p>5.3 Operating faults are identified and corrective actions taken according to the operations manual.</p> <p>5.4 Testing and monitoring equipment are calibrated to manufacturers specifications.</p> <p>5.5 Work outcomes are recorded or reported to the supervisor according to enterprise work procedures.</p>

RANGE OF VARIABLES

VARIABLE	RANGE
1. materials	1.1. Materials may include irrigation system components, glues, welds, and construction and backfill materials.
2. tools, equipment and machinery	2.1. Tools, equipment and machinery may include surveying and levelling equipment such as automatic level, laser level, dumpy level, Cowley level, staff, boning rods, pegs, notebook, pencil and calculator; hand tools such as rakes, shovels, spades, rollers, wheelbarrows, hoses and hose fittings; machinery such as bobcats, ditch witches, backhoes, front-end loaders, graders, mechanical rollers, trucks, hydraulic trailers, and tractors and 3-point linkage equipment, pumps and pump fittings, and fitting and welding tools appropriate to the irrigation system.
3. irrigation systems	3.1. Irrigation systems may include mains pressure, low pressure, below ground, above ground, spray systems, dripper, and capillary systems.
4. enterprise work procedures	4.1. Work procedures may include supervisors oral or written instructions, installation program, enterprise standard operating procedures (SOPs), specifications, routine maintenance schedules, work notes, product labels and Material Safety Data Sheets (MSDS), manufacturers service specifications and operators manuals, waste disposal, recycling and re-use guidelines, and OHS procedures.

5. irrigation equipment	5.1. Irrigation equipment may include pumps, motors, delivery equipment, sprays, system controllers, injectors, tensiometers, probe tubes, flow meter, pressure gauge, computer and/or other scheduling devices, recycling equipment, and spray equipment.
6. OHS hazards	6.1. Hazards may include disturbance or interruption of services, solar radiation, dust, noise, soil and waterborne micro-organisms, chemicals and hazardous substances, manual handling, moving vehicles, machinery and machinery parts, uneven surfaces and flying and falling objects.
7. safety equipment	7.1. Safety equipment may include signage and barriers.
8. PPE	8.1. PPE may include hat, boots, overalls, gloves, goggles, respirator or face mask, face guard, hearing protection, sunscreen lotion and hard hat.
9. water supplies	9.1. Water supplies may be underground, mains or surface storage including fixtures such as dams, bores, windmills, tanks, and channels.
10. OHS requirements	10.1. OHS requirements may include identifying hazards, assessing risks and implementing controls, cleaning, maintaining and storing tools, equipment and machinery; appropriate use of PPE including sun protection, safe operation of tools, equipment and machinery, safe handling, use and storage of chemicals and hazardous substances, correct manual handling, basic first aid, personal hygiene and reporting problems to supervisors.

11. clean and safe work area	11.1. Tasks may include disabling unused tools, equipment and machinery and storing neatly out of the way of installation activities, safely storing materials on site, using signage and safety barriers during and removing after construction activities are completed, and swiftly and efficiently removing and processing debris and waste from the work area.
12. waste material	<p>12.1. Waste material may include unused construction and excavated materials, and plant debris, litter and broken components.</p> <p>12.2. Plant-based material may be mulched or composted, plastic, metal, paper-based materials may be recycled, re-used, returned to the manufacturer or disposed of according to enterprise work procedures.</p> <p>12.3. Waste may be removed to designated areas for recycling, reuse, return to the manufacturer or disposal.</p>
13. testing equipment	13.1. Testing equipment may include pressure gauges and flow meters.

EVIDENCE GUIDE

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidences that the candidate :</p> <ol style="list-style-type: none"> 1.1. Prepared for installation, set out the installation works, installed and tested the irrigation system and cleaned- up the site <p>The skills and knowledge required to install an irrigation system must be transferable to a different work environment. For example, this could include different types of irrigation systems and components, water supplies, soil types and enterprises.</p>
<p>2. Underpinning Knowledge and Attitudes</p>	<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:</p> <ol style="list-style-type: none"> 2.1. methods and techniques of irrigation 2.2. components of an irrigation system 2.3. characteristics and operation of joints, valves and sprinkler components 2.4. operation of pumps and water flow rates 2.5. behaviour of water on varying terrain and soil types 2.6. soil water retention testing techniques 2.7. water quality and water filtration techniques 2.8. calculations for installing irrigation systems 2.9. soil characteristics 2.10. enterprise OHS procedures.

3. Underpinning Skills	<p>To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:</p> <ul style="list-style-type: none"> 3.1. organize resources for installation work 3.2. set-out and prepare site 3.3. install irrigation components 3.4. complete installation work 3.5. commission irrigation system 3.6. communicate with work team members, supervisors, contractors and consultants 3.7. implement and follow relevant enterprise OHS and environmental policies and procedures.
4. Resource Implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 4.1. workplace site onto which to install irrigation system 4.2. tools, equipment and materials used in installing irrigation 4.3. irrigation design plan 4.4. enterprise procedures relating to irrigation installations and site work.
5. Methods of Assessment	<p>Competency should be assessed:</p> <ul style="list-style-type: none"> 5.1. through direct observation / demonstration 5.2. checking workplace records and production plans (portfolio)
6. Context of Assessment	<ul style="list-style-type: none"> 6.1. Assessment should be in a workplace. 6.2. Demonstration of competency over time and on a number of occasions.