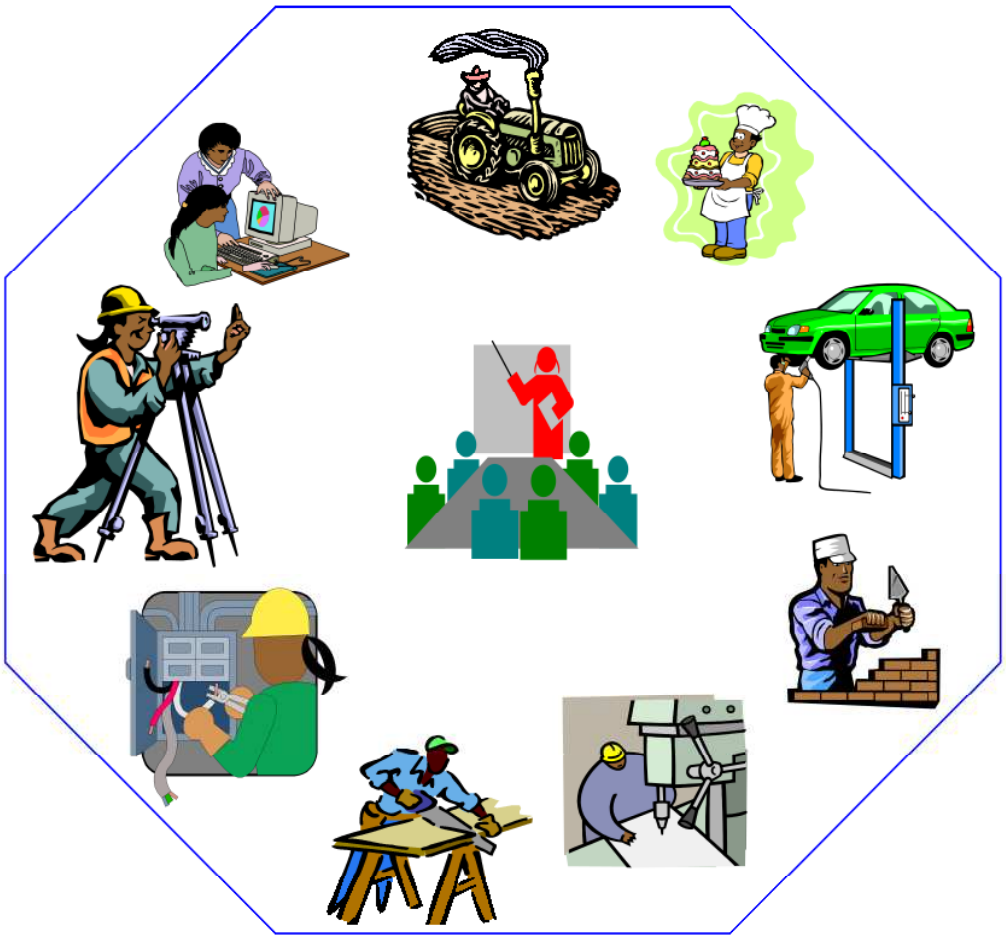
Federal Democratic Republic of Ethiopia

OCCUPATIONAL STANDARD

SPICE AND HERBS PROCESSING

NTQF Level II and III



Ministry of Education
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Introduction

Ethiopia has embarked on a process of reforming its TVET-System. Within the policies and strategies of the Ethiopian Government, technology transformation – by using international standards and international best practices as the basis, and, adopting, adapting and verifying them in the Ethiopian context – is a pivotal element. TVET is given an important role with regard to technology transfer. The new paradigm in the outcome-based TVET system is the orientation at the current and anticipated future demand of the economy and the labor market.

The Ethiopian Occupational Standards (EOS) are - a core element of the Ethiopian National TVET-Strategy and an important factor within the context of the National TVET-Qualification Framework (NTQF).They are national Ethiopia standards, which define the occupational requirements and expected outcome related to a specific occupation without taking TVET delivery into account.

This document details the mandatory format, sequencing, wording and layout for the Ethiopian Occupational Standard comprised of Units of Competence.

A Unit Title describes a distinct work activity. It is documented in a standard format that comprises:

- Reference to Industry Sector, Occupational title, NTQF level
- Unit code
- Unit title
- Unit descriptor
- Unit of Competence
- Elements and performance criteria
- Variables and Range statement
- Evidence guide

Together all the parts of a Unit Title guide the assessor in determining whether the candidate is competent.

The ensuing sections of this EOS document comprise a description of the respective occupation with all the key components of a Unit of Competence:

- chart with an overview of all Units of Competence for the respective level including the Unit Codes and Unit of Titles
- contents of each Unit Title(competence standard)
- occupational map providing the Technical and Vocational Education and Training (TVET) providers with information and important requirements to consider when designing training programs for this standards, and for the individual, a career path

UNIT OF COMPETENCE CHART

Occupational Standard: Spice and Herbs Processing		
Occupational Code: IND SHP		
NTQF Level II		
IND SHP2 01 0613 Raw Spice and Herbs storage preparation	**IND SHP2 02 0613** Receiving and Handle of Spice and Herbs in a Storage Area	**IND SHP2 03 0613** Operate a Spice and Herbs Cleaning Process
IND SHP2 04 0613 Operate a Slicing Process	**IND SHP2 05 0613** Perform Drying Process	**IND SHP2 06 0613** Perform Mill Operations and Technologies
IND SHP2 07 0613 Operate a Scalping and Grading Process	**IND SHP2 08 0613** Operating Blending, Sieving and Bagging Process	**IND SHP2 09 0613** Operate an Extraction Process
IND SHP2 10 0613 Operate a Distillation Process	**IND SHP2 11 0613** Operate a Separation Process	**IND SHP2 12 0613** Operate Bleaching Processes
IND SHP2 13 0613 Perform Heat Exchange Operations	**IND SHP2 14 0613** Operate an Aseptic Form, Fill and Seal Process	**IND SHP2 15 0613** Implement the Food Safety Program and Procedures
IND SHP2 16 2013 Participate In Environmentally Sustainable Work	**IND SHP2 17 0613** Participate In Workplace Communication	**IND SHP2 18 0613** Work In Team Environment
IND SHP2 19 0613 Develop Business practice	**IND SHP2 20 0613** Standardize and Sustain 3S	

NTQF Level III

IND SHP3 01 0613 Set Up a Production Line for Operation	**IND SHP3 02 0613** Operate Interrelated Processes in a Production System	**IND SHP3 03 0613** Operate Interrelated Processes in a Packaging System
IND SHP3 04 0613 Monitor the Implementation of Quality and Food Safety Programs	**IND SHP3 05 0613** Monitor Storage Facilities	**IND SHP3 06 0613** Apply Competitive Manufacturing Practices
IND SHP3 07 0613 Perform Basic Tests	IND SHP3 08 0613 Apply Raw Materials, Ingredient and Process Knowledge to Production Problems	IND SHP3 09 0613 Identify Cultural, Religious and Dietary Requirements for Food Products
IND SHP3 10 0613 Monitor Spice Fractionation Process	IND SHP3 11 0613 Assess Oleoresin/Essential Oil for Style and Quality	IND SHP3 12 0613 Use Numerical Application in the Workplace
IND SHP3 13 0613 Monitor Extraction of Spice and Herbs Process	GOP3 SHP3 14 0613 Monitoring Labeling, Grading and Categorizing of Spice Products	IND SHP3 15 0613 Identify Equipment Faults
IND SHP3 16 0613 Monitor Implementation of Work Plan/Activities	IND SHP3 17 0613 Apply Quality Control	IND SHP3 18 0613 Lead Work Place Communications
IND SHP3 19 0613 Lead Small Teams	IND SHP3 20 0613 Improve Business Practice	IND SHP3 21 0613 Prevent and Eliminate MUDA

NTQF Level II

Occupational Standard: Spices and herbs Processing level II	
Unit Title	**Spices and Herbs Storage Preparation**
Unit Code	**IND SHP2 01 0613**
Unit Descriptor	This unit covers the process of safely preparing storages, surrounding areas and equipment in readiness for receiving Spices and herbs at an acceptable level of hygiene, and defines the standard required to: • prepare the storage area for access by Spices and herbs carriers; comply with Occupational Health and Safety (OHS) requirements for working in confined spaces; • prepare Spices and herbs storages by removing all residues and checking structures; • erect simple temporary bulk material storages; • prepare and test Spices and herbs handling machinery and • Perform routine safety, servicing and maintenance procedures on tools, equipment and machinery.

Elements	Performance Criteria
1. Prepare to work in bulk material storage area	1.1. Work to be undertaken is interpreted from work program where necessary, and confirmed with supervisor. 1.2. OHS hazards are identified, risk assessed and suitable controls implemented. 1.3. Suitable personal protective 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 material ***storage area*** are identified, likely outcomes assessed and, if necessary, responsible action taken.
2. Prepare storage area	2.1 Storage area site is cleaned of weed, dust and spillage to organization requirements. 2.2 Refuse is disposed of according to regulatory requirements. 2.3 Site is maintained in a clean and tidy condition according to organization requirements. 2.4 Storage site is prepared to meet OHS standards.
3. Prepare storages	3.1 Bulk material storages are prepared according to OHS standards. 3.2 Bulk material storages are cleaned of all residues according to organization requirements. 3.3 Bulk material storages are checked for structural safety, damage or deterioration, and repaired or reported as required according to organization requirements.

	3.4 Temporary storages are prepared and erected to meet the needs of the organization according to OHS standards.
4. Prepare bulk material handling machinery	4.1 Bulk material handling machinery is cleaned free of contamination and residues according to organization requirements. 4.2 Bulk material handling equipment is adjusted and set according to organization requirements. 4.3 Bulk material handling equipment is prepared ready for use according to manufacturer's instructions and OHS standards.
5. Complete maintenance operation	5.1 Workplace information is recorded clearly and accurately in the format and at the time required by the organization. 5.2 Waste is collected and disposed of or recycled to minimize damage to the external environment. 5.3 ***Storage tools and equipment*** are cleaned and spices and herbs receiving according to organization work procedures.

Variable	**Range**
Storage areas	May include but not limited to: • permanent and/or temporary storages • the surrounding areas • Entry, exit and site roads.
Storage tools and equipment	May include but not limited to: • Fixed and/or portable Spices and herbs handling equipment.

Evidence Guide	
Critical Aspects of Competence	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: • prepare the storage area for access by Spices and herbs carriers • comply with OHS requirements for working in confined spaces • prepare Spices and herbs storages by removing all residues and checking structure • erect simple temporary bulk material storages • prepare and test Spices and herbs handling machinery • Perform routine safety, service and maintenance procedures on tools, equipment and machinery.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • range of construction methods, potential hazards, safety and structural requirements for storage • erection/dismantling for types of temporary storage used by organization • organization and commodity quality requirements for Spices and herbs storage

	• organization hygiene requirements • typical signs of structural damage to be documented and reported • pre-operational and safety checks, servicing and maintenance procedures for tools and equipment • general machine maintenance procedures • machinery operating principles and operating methods • machinery storage and protection methods • cleaning and storage of machinery, equipment and materials • environmental impacts associated with the operation of machinery and equipment • appropriate action in contingency situations • organization requirements for protective equipment and safe practices in relation to OHS • potential hazards associated with the operation of basic tools and equipment • relevant State/Territory legislation, regulations and codes of practice with regard to workplace OHS, environment and the use and control of machinery and equipment • appropriate legislative requirements, manufacturer's instructions and organization procedures/ instructions • personal protective clothing and equipment and when and how it should be used • Organizational recording and reporting procedures.
Underpinning Skills	Demonstrate skills to: • identify hazards and follow safe work procedures • erect simple temporary bulk material storages • check equipment and storage facilities, and identify current or impending faults • handle and maneuver equipment • complete pre-operational checks on basic tools and equipment • perform routine safety, service and maintenance procedures on tools, equipment and machinery • operate hand and independently powered tools and cleaning equipment to industry standards • clean, secure and store machinery and equipment • perform basic trouble shooting • recognize and rectify minor operational faults • handle hazardous substances (fuels) safely • work in confined, dusty, spaces • use communication systems • Interpret and apply task instructions, communicate with work team and supervisor, and record and report faults, workplace hazards and accidents. • Read and interpret manufacturer's specifications, work and maintenance plans, and Material Safety Data Sheets.

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Receiving and Handle Spices and Herbs in a Storage Area**
Unit Code	**IND SHP2 02 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to receiving and handle spices and herbs in a storage area, including taking samples, segregating and moving spices and herbs in a manner that minimizes dust and exposure to microorganism.

Element	Performance Criteria
1. Receive and process incoming goods	1.1 Cleanliness and orderliness in receiving bay are maintained according to workplace policy. 1.2 Work is conducted in accordance with workplace environmental guidelines. 1.3 Goods are unpacked using correct techniques and equipment in line with workplace policy. 1.4 Packing materials are removed and disposed of promptly according to workplace policy. 1.5 Incoming stock is accurately checked and validated against purchase orders and delivery documentation according to workplace policy. 1.6 Items received are inspected for damage, quality, use-by dates, breakage or discrepancies and recorded according to workplace policy 1.7 Stock levels are accurately recorded on workplace stock systems, according to workplace policy. 1.8 Secure storage of stock is arranged according to workplace policy and government legislation. 1.9 Stock is dispatched to appropriate area as required. 1.10 Stock price and code labels are applied when required according to workplace policy.
2. Organize the storage of stock	2.1 Employees, equipment and storage areas are allocated and supervised. 2.2 Individuals are informed of work requirements and deadlines. 2.3 Work processes are monitored to ensure that resources, both human and equipment, are maintained at productive levels and in accordance with workplace procedures and OHS requirements. 2.4 Discrepancies in stocks are noted and reported in accordance with workplace procedure. Requirements.

3. Sample spices and herbs for testing	3.1. Representative samples of spices and herbs are taken for testing according to ***policies and procedures*** regulatory requirements. 3.2. ***Samples for tests*** are prepared for dispatch, including labeling and packaging according to enterprise requirements.
4. Move spices and herbs into and out of storage	4.1. ***Spices and herbs*** are correctly identified for handling and ***storage facility***. 4.2. Appropriate silo types and ***handling equipment*** are selected with ***other personnel*** for various Spices and herbs in relation to their storage characteristics and flow properties. 4.3. Spices are segregated according to type, variety and quality characteristics according to enterprise requirements and appropriate records and ***documentation*** kept. 4.4. Measures are taken to minimize pest and microorganism infestation as per crop pest protection and organizational procedures. 4.5. Spices and herbs are moved into and out of storage according to Occupational Health and Safety (OHS) requirements. 4.6. Contamination is regularly checked during ***spices and herbs movement***. 4.7. Storage and analysis equipment are thoroughly cleaned after emptying. 4.8. Temporary storages are dismantled according to enterprise requirements and storage characteristics. 4.9. Suitable measures and ***equipment checks*** are implemented to minimize the effect of desiccant dusts on the flow properties of spices and herbs. 4.10. ***Other equipment*** are used in storage and handling of spices and herbs for facilitation as work place requirement.
5. Complete documentation	5.1 Documentation and records regarding receival operations are completed and filed/dispatched in accordance with workplace procedures and relevant regulatory.

Variable	**Range**
Policies and procedures	May include but not limited to: • All work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Samples for testing	May include but not limited to: • moisture • insects (live and dead) • color • pungency • weed and other commodity seeds • other foreign matter • cracked Spices and herbs • weather affected Spices and herbs • Spices and herbs size and weight • disease identification
Spices and herbs	May include but not limited to • Pepper • Ginger • Turmeric • Fenugreek • Garlic and Cinnamon
Storage facility	May include but not limited to: • all types of temporary and permanent storage
Handling equipment	May include but not limited to: • silo conveyors • elevators • chutes • augers
Other personnel	May include but not limited to:: • other operators at storage site • truck drivers • silo operators • weighbridge operators • associated office personnel
Documentation	May include but not limited to: • quantities and grades spices and herbs receiving • Spices and herbs movements and cartage documentation • weigh tally sheets • equipment and operations log sheets • stock checks
Spices and herbs movements	May include but not limited to: • receipt • dispatch • aeration • treatment and/or blending of Spices and herbs grades
Equipment checks	May include but not limited to: • mechanical units integral to Spices and herbs handling equipment, such as gear boxes, bearings and oil levels
Other equipment	May include but not limited to: • computing equipment used by enterprise

	• two way radio/telephone • tractors • front end loaders • wall charts and other visual recording methods • warning devices • ventilation/aeration equipment
Aspects of goods	May include but not limited to: • correct type • number • condition • quality • packaging • labeling • dangerous goods declarations and marking (where applicable)
Sampling and analysis equipment	May include but not limited to: • all testing apparatus • sampling, measuring and sieving equipment • operational charts • calibration and identification samples • enterprise/client instructions

Evidence Guide	
Critical Aspects of competence	Demonstrate skills and knowledge to: • take required samples • conduct pre-start checks on machinery and equipment used for Spices and herbs storage and transfers • start, operate, monitor and adjust process equipment • recognize different Spices and herbs types and varieties • check Spices and herbs for pest and other contamination • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices where Spices and herbs are intended for human consumption.
Underpinning Knowledge	Demonstrate Knowledge of: • Spices and herbs hygiene and sealing requirements • Spices and herbs varieties and types • segregation requirements to maintain integrity and quality of Spices and herbs • flow of Spices and herbs in storage area from receipt to dispatch

	• typical storage equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • contamination/food safety risks associated with the Spices and herbs storage process and related control measures • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the Spices and herbs storage process and workplace requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • environmental issues and controls relevant to the Spices and herbs storage process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify Spices and herbs storage requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • start, operate, monitor and adjust equipment used to move and store Spices and herbs to achieve required outcomes • monitor supply and flow of materials to and from the Spices and herbs cleaning process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take Spices and herbs cleaning process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • conduct pre-operational checks, start up, and safely and effectively operate and shut down equipment, including emergency shutdown procedures • coordinate with others on site • position initial load for even Spices and herbs distribution

	• safe and correct use of mobile and other equipment • dismantling of temporary storage of the type used by enterprise • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanities equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate a Spices and Herbs Cleaning Process**
Unit Code	**IND SHP2 03 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a cleaning process to screen impurities from the spices and herbs prior to the coming process.

Elements	Performance Criteria
1. Prepare the spices and herbs cleaning equipment and process for operation	1.1. ***Materials*** are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. The bin system is setup to meet production requirements. 1.6. Equipment performance is checked and adjusted as required. 1.7. Pre-start and ***service*** checks are carried out as required by workplace requirements.
2. Operate and monitor the spices and herbs cleaning process	2.1. The process is started and operated according to workplace procedures. 2.2. ***Spices and herbs cleaning equipment*** is monitored to identify variation in operating conditions. 2.3. Variation in ***operation of equipment and processes*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that spices and herbs specifications. 2.5. The process is monitored to confirm that impurity removal rate meets specifications. 2.6. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.7. The work area is maintained according to housekeeping standards. 2.8. Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***.

	2.9. Workplace records are maintained according to workplace recording requirements. 2.10. ***Workplace information*** requirements and procedures are followed.
3. Shut down the spices and herbs cleaning process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.
4. Prepare the grading process for operation	4.1. Washed and chilled spices and herbs are confirmed and available to meet operating requirements.
5. Inspect and grade of cleaned spices and herbs	5.1 Spices and herbs are inspected and ***graded*** to workplace quality specifications. 5.2 Out-of-specification product is identified, rectified and/or reported. 5.3 The work area is maintained according to housekeeping standards. 5.4 Work is conducted according to workplace environmental guidelines. 5.5 Workplace records are maintained according to workplace recording requirements.

Variables	**Range**
Raw materials	May include but not limited to: • Raw materials for Spices and herbs cleaning may include: • Previously cleaned spice and herbs or impurities of spice and herbs which has been accepted from raw material receiving procedure.
Services	These depend on the nature of the process. Typical examples include: • power • vacuum • compressed and instrumentation air
Spices and herbs cleaning equipment	May include but not limited to: • intake equipment • inspection on hand • day bins • screens • separators • aspirators • extractors /destoners • magnetic separator

	• scales • measurers/mixers • impact grinders • washing machines • materials handling equipment
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Legislative requirements	May include but not limited to: • Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, occupational health and safety, anti-discrimination and equal opportunity
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Grading	May include grading could apply in any section where product is handled

Evidence Guide	
Critical Aspects of competence	Demonstrate skills and knowledge of: • conduct pre-start checks on machinery and equipment used for Spices and herbs cleaning • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures to work practices.

Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the Spices and herbs cleaning process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the Spices and herbs cleaning process and the effect of outputs on downstream processes • quality characteristics to be achieved by the spices cleaning process • quality requirements of materials and effect of variation on spices and herbs cleaning process performance • how and why various kinds of spices are blended to make value added spices product • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the spices and herbs cleaning process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the spices and herbs cleaning process and the related procedures and recording requirements • contamination/food safety risks associated with the spices and herbs cleaning process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the spices and herbs cleaning process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information

	• environmental issues and controls relevant to the spice and herbs cleaning process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant • purpose of the grading and weighing process, including grading criteria and specifications at each level and the uses of product at each grade • common types of damage or out-of-specification conditions and likely causes, including damage likely to be caused by poor handling of the spices and herbs • the flow of the grading process and the effect of outputs on downstream processes • methods used to grade carcasses, including visual inspection and other methods further tests to support the grading process • contamination/food safety risks associated with the grading process and related control measures
Underpinning Skills	Demonstrate skills to: • access workplace information to identify spices and herbs cleaning process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that required screens are fitted and related equipment is clean and correctly configured for Spices and herbs cleaning process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust spices and herbs cleaning process equipment to achieve required outcomes, including visual inspection and regular checking of collection points (filters and screens) and over tail bags • carry out process adjustments to maintain efficient removal of impurities with minimal removal of product • monitor supply and flow of materials to and from the Spices and herbs cleaning process

	• take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take Spices and herbs cleaning process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanities equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce • access workplace information to identify grading process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate a Slicing Process**
Unit Code	**IND SHP2 04 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a slicing process.

Elements	Performance Criteria
1. Prepare the, slicing and equipment and process for operation	1.1. Spice products are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5 Equipment performance is checked and adjusted as required. 1.6. Pre-start and ***service*** checks are carried out as required by workplace requirements.
2. Operate and monitor the slicing process	2.1. The slicing process is started and operated according to workplace procedures. 2.2. ***Equipment*** is monitored to identify variation in operating conditions ***operation of equipment and processes***. 2.3. Variation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that product is cooled and packaged to meet specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.8. Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***. 2.8. Workplace records are maintained according to workplace recording requirements. 2.9. ***Workplace information*** requirements and procedures are followed.
3. Shut down the slicing process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down and cleaned according to workplace procedures.

	3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	Range
Services	May include but not limited to: • power • compressed and instrumentation air
Equipment	May include but not limited to: • conveyors • rotary and guillotine knives
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Legislative requirements	May include but not limited to: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery used for slicing and Start, operate, monitor and adjust process equipment to achieve required quality outcomes take corrective action in response to typical faults and inconsistencies. • complete workplace records as required • Apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the slicing process

	• basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the slicing process and the effect of outputs on downstream processes and final product • quality characteristics to be achieved by the process • quality requirements of packaging materials and effect of variation on process performance and product shelf-life • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the slicing process, such as inspecting and measuring as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the • process and workplace production requirements • product/process changeover procedures and responsibilities isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • select, fit and use personal protective clothing and/or equipment

	• confirm supply of necessary product, packaging consumables and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting • appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that • equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, • ensuring any scheduled maintenance has been carried • out, and confirming that all safety guards are in place and • operational confirm settings in the machine, such as: ➢ conveyor speed/track position ➢ humidity ➢ air flow/fan settings ➢ product layout/spacing • settings in the slicing/bagging equipment: ➢ knife condition ➢ machine speed ➢ height/width settings and air pressure • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification • monitor supply and flow of product and packaging consumables to and from the process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanities equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate Drying Process**
Unit Code	**IND SHP2 05 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a drying process.

Elements	Performance Criteria
1. Prepare the drying process for operation	1.1. ***Materials*** are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Processing and operating parameters are entered as required to meet safety and production requirements. 1.4. ***Drying equipment*** performance is checked and adjusted as required. 1.5. Pre-start and ***service*** checks are carried out as required by workplace requirements.
2. Operate and monitor the drying process	2.1. The process is started and operated according to workplace procedures. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in ***operation of equipment and processes*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that specifications are met. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace ***Legislative requirements*** and ***policies and procedures***. 2.8. Workplace records are maintained according to workplace recording requirements. 2.9. ***Workplace information*** requirements and procedures are followed.
3. Shut down the drying process	3.1. The appropriate shut ***down procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	Range
Materials	May include but not limited to: • Materials may include product to be dried and additives or drying agents as required, consistent with the provisions of the Ethiopian Food Safety Code
Drying equipment	May include but not limited to: • drying chambers • atomizers • heaters • coolers • air filters • fans • recovery cyclones • conveyors
Services	May include but not limited to: • power • fuel • steam • water • compressed and instrumentation air
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Legislative requirements	Legislation relevant to this industry includes: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: • cleaning, (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • conduct pre-start checks on machinery used for drying

	• start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the drying process, including the stages that occur during the drying process and the effect on product structure of each stage • basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • quality characteristics to be achieved by the process • materials preparation requirements and effect of variation on the process • the flow of the drying process and the effect of outputs on downstream processes • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the drying process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures • common causes of variation, such as air temperature, air velocity, humidity and pressure, and corrective actions required if these are out-of-specification • Operational Health and Safety (OHS) hazards and controls, including limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage

	• procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the drying process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment • product/process changeover procedures and responsibilities where relevant • routine maintenance procedures where relevant • sampling and testing associated with process monitoring and control where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • prepare materials as required • conduct pre-start checks, such as inspecting equipment condition (e.g. checking belts, chains, screens, seals and valves, and filters) to identify any signs of wear, • selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, • confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, • ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: ➢ temperatures ➢ moisture content ➢ air flow ➢ throughput ➢ time/speed ➢ pressure/vacuum and product characteristics • monitor supply and flow of materials to and from the process • take corrective action in response to out-of-specification results or non-compliance • respond to and/or report equipment failure within level of responsibility

	• report and/or record corrective action as required • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • prepare equipment for cleaning • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • demonstrate product/batch changeovers (may not apply to some continuous operations) according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanities equipment according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Perform Mill Operations and Technologies**
Unit Code	**IND SHP2 06 0613**
Unit Descriptor	This unit of competency covers the overall knowledge of spices and herbs milling operations an employee requires to operate safely and effectively in a mill.

Elements	Performance Criteria
1. Locate mill departments, walkways, storage and assembly areas	1.1. Raw materials receive and storage areas are located. 1.2. Control rooms and other main operator stations are located. 1.3. Milling, batch and mixing, and production areas are located. 1.4. Additive storage is located. 1.5. ***Milling departments***, support services, including maintenance, administration, laboratory and quality assurance, and information technology departments are located. 1.6. Finished ***spice and herbs*** products storage are dispatched and areas are located. 1.7. Walkways and emergency assembly areas are located.
2. Describe flow of product through mill and purpose of each stage in the production process	2.1. Main raw materials and ***target species and herbs*** are described. 2.2. Processes, including weighing and quality checks are received. 2.3. ***Production process*** is described. 2.4. Batching and mixing processes, including recipe, micronutrients and additives are described, 2.5. Post-mixing processes, and Labeling and packing operations are described.
3. Describe main risks to milling operations	3.1. Importance of dust control and dust control procedures is explained. 3.2. Additives requiring special safety and handling procedures are identified. 3.3. Typical pests are described and pest control procedures explained. 3.4. Main risks to quality, including contamination, incorrect recipe adherence, incorrect sequencing and product transference, incorrect labeling and packaging are described. 3.5. Environmental procedures for mill operations are identified.

Variables	Range
Milling departments	May include but not limited to: • road and rail spices and herbs receivable, including weighbridges, general inwards goods receivable • bulk and packaged raw materials storage • milling, batch and mixing production areas • maintenance • administration • laboratory and quality assurance • information technology • bulk and packaged finished products storage • road and rail dispatch
Spice and herbs products	May include but not limited to: • Stock feed products may include: • powder spices and herbs • pre-mixes • loose lick
Target species and herbs	May include but not limited to: • red pepper • turmeric • fenugreek • ginger • clove • cinnamon • garlic
Production Process	The production process typically includes: • batching and blending of components, including any micronutrients and other additives • feeding • quality checking • labeling • packing and dispatch

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • identify and locate departments, major walkways and assembly areas in the mill • describe the major steps in the production process • describe spice and herbs products and purposes, including basic role of additives, typical target species and herbs • Identify major risk factors including dust, pests, contamination and incorrect adherence to recipes.

Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of each part of the production process, such as measurement, mixing, adding and mixing in micronutrient and other additives, sequencing of production to minimize transference and cross-contamination, and traceability procedures • range of raw materials and typical sourcing • spice and herbs product range and target species and herbs • basic operating principles of equipment and main equipment components • basic operating principles of process control, including the relationship between control rooms and panels and the physical equipment • the flow of the production process • quality characteristics and uses of finished spice and herbs • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • methods used to monitor the process, such as inspecting, measuring and testing as required by the process • contamination risks and related controls • OHS hazards and controls, including dust, contamination and materials requiring special handling procedures and emergency assembly areas
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • read diagrams and sketches • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and see9king advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate a Scalping and Grading Process**
Unit Code	**IND SHP2 07 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a production process for the separation of the break stock (chopping) into appropriate flows to the next break, adjusting purifiers and sizing rolls.

Elements	Performance Criteria
1. Prepare the scalping and grading equipment and process for operation	1.1. Materials are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. Equipment performance is checked and adjusted as required. 1.6. Pre-start checks and ***services*** are carried out as required by workplace requirements.
2. Operate and monitor the scalping and grading process	2.1 . Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***. 2.2. ***Scalping and grading equipment*** is monitored to identify variation in operating conditions. 2.3. Variation in ***operation of equipment and processes*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that particle size of stock meets specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.

	2.9. ***Workplace information*** requirements and procedures are followed.
3. Shut down the scalping and grading process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variables	**Range**
Services	May include but not limited to: • Services may need to be confirmed. These depend on the nature of the process. Typical examples include: • power • vacuum • compressed and instrumentation air
Legislative requirements	May include but not limited to: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Scalping and grading equipment	May include but not limited to: • plain sifters and accessories • mechanical/pneumatic stock transfer equipment Supporting systems may include: • compressors • aspirators • filtrates
Operation of equipment and processes	May include but not limited to: • Operation of equipment and processes may require: ➢ the use of process control panels and systems
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery and equipment used for scalping and grading • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge	Demonstrate Knowledge of: • purpose and basic principles of the scalping and grading process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation. • services required and action to take if services are not available • the flow of the scalping and grading process and the effect of outputs on downstream spice and herbs milling processes • quality characteristics to be achieved by the scalping and grading process • quality requirements of materials and effect of variation on scalping and grading process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the scalping and grading production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the scalping and grading process and the related procedures and recording requirements • contamination/food safety risks associated with the scalping and grading process and related control measures • common causes of variation and corrective action required

	• Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the scalping and grading process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the scalping and grading process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify scalping and grading process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for scalping and grading process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust scalping and grading process equipment to achieve required outcomes, such as monitoring control points and conducting inspections as required to confirm process remains within specification, including regular inspection of collection points and sifter outlets to confirm process efficiency and visual inspection of product samples to confirm particle size • monitor supply and flow of materials to and from the scalping and grading process • adjust and clean screens

	• take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • demonstrate batch/product changeovers • follow isolation and lock out/tag out procedures as required to take scalping and grading process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanities equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate a Blending, Sieving and Bagging Process**
Unit Code	**IND SHP2 08 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a blending, sieving and bagging process.

Elements	Performance Criteria
1. Prepare the blend, sieve and bagging equipment and process for operation	1.1. Materials are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet safety and operating requirements. 1.4. Processing/operating parameters are entered as required to meet production requirements. 1.5. Materials, ingredients, product and/or consumables are loaded or positioned as required to meet production requirements. 1.6. ***Equipment*** performance is checked and adjusted as required. 1.7. Pre-start and ***service*** checks are carried out as required by workplace requirements.
2. Operate and monitor the blend, sieve and bagging process	2.1. ***Ingredients*** are delivered to the blender in the required quantities and sequence to meet recipe specifications. 2.2. Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***. 2.3. Equipment is monitored to identify variation in operating conditions. 2.4 Variation in ***operation of equipment and processes*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.5. The process is monitored to confirm that ingredients are blended, sieved and bagged to meet specifications. 2.6. Out-of-specification product or process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.7. The work area is maintained according to housekeeping standards. 2.8. Work is conducted in accordance with workplace environmental guidelines.

	2.9. Workplace records are maintained according to workplace recording requirements. 2.10. ***Workplace information*** requirements and procedures are followed.
3. Shut down the blend, sieve and bagging process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Equipment	May include but not limited to: • ribbon and vertical blenders • sieves, including rotary and shaker sieves • net weighers • gross baggers • sew and crepe machines • heat sealers • The sieving stage may occur before and/or after blending
Services	May need to be confirmed. These depend on the nature of the process. Typical examples include: • power • steam • water • vacuum • compressed and instrumentation air
Ingredients	May include but not limited to: • Ingredients may be delivered to the process using bulk automated materials handling equipment or loaded manually
Legislative requirements	May include but not limited to: • Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Operation of equipment and processes	May include but not limited to: • Operation of equipment and processes may require: • the use of process control panels and systems
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs)

	• specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shut down procedures	May include cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on machinery used for blending, sieving and bagging • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment and apply food safety procedures
Underpinning Knowledge and Attitudes	• purpose and basic principles of the process, including the method and sequence of ingredient addition required to achieve required blend characteristics • the purpose of packaging and properties required of packaging materials used, coding requirements and related legal requirements, including product weight • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of this process and the effect of outputs on downstream processes • quality characteristics required of process outputs, such as packaging quality and seal integrity as required • effect of variation in inputs, such as ingredient quality/condition, packaging components/consumables and/or services, on process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, such as sieve or screen damage • methods used to monitor the process, such as monitoring blend characteristics and weights

	• inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures, including product compatibility, cross-contamination risks and associated cleaning requirements • common causes of variation and corrective action required, including procedures to manage the reprocessing (return to blend) of the part of the blend to minimise non-conforming output • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the process and workplace production/packaging requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • product/batch changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrate skills to: • access workplace information to identify processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary packaging components/consumables, materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that related equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, any ensuring scheduled maintenance has been completed and all safety guards are in place and operational • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as:

	➢ characteristics of blend ➢ flow to sieves ➢ sieve/screen condition ➢ supply of packaging components/consumables ➢ integrity of finished seals (stitching or thermal) ➢ monitor and regulate the supply and flow of materials to and from the process ➢ take corrective action in response to out-of-specification results ➢ respond to and/or report equipment failure within level of responsibility ➢ locate emergency stop functions on equipment ➢ follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility ➢ demonstrate batch/product changeovers ➢ complete workplace records as required ➢ maintain work area to meet housekeeping standards ➢ use process control systems according to enterprise procedures ➢ collect samples and conduct tests according to enterprise procedures ➢ clean and sanitise equipment according to enterprise procedures ➢ use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor ➢ work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate an Extraction Process**
Unit Code	**IND SHP2 09 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down processes used to extract oleoresin from spices using solvents.

Elements	Performance Criteria
1. Prepare the extraction equipment and process for operation	1.1. Materials are confirmed, blended and prepared to meet production requirements. 1.2. Workplace documentation relevant to work area activities is identified and followed. 1.3. The required facilities, storage, ***equipment*** and personnel are made available. 1.4. Line clearance procedures have been carried out. 1.5. Procedures are followed to eliminate or control the risk of cross-contamination. 1.6. Material is loaded into percolator and solvents are added to specification.
2. Operate and monitor the extraction process	2.1. The ***extraction process*** is monitored to confirm that specifications are met. 2.2. Out-of-specification product/process is identified, rectified and/or reported to maintain the process within specification. 2.3. The work area is maintained according to housekeeping standards. 2.4. Work is conducted according to environmental standards and workplace ***legislative requirements*** and ***policies and procedures***. 2.5. ***Workplace documentation*** is maintained according to workplace reporting requirements.
3. Shut down the extraction process	3.1. The process is shut down according to workplace procedures and work practices. 3.2. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	Range
Equipment	May include but not limited to: • blenders/mixers • percolators(extractor)

	• tamping rods • collection vessels
Extraction process	• Solvents used in the extraction process may be: • polar and non-polar solvent aqueous and/or alcohol based (temperature may or may not be applied during extraction process)
Legislative requirements	May include but not limited to: • Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • legislative and licensing requirements • Therapeutic Goods Act • weights and measures legislation • legislation relating to OHS, environmental management, equal opportunity and affirmative action, industrial awards and agreements
Policies and procedures	May include work activities are carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements and industrial awards and agreements
Workplace documentation	May include but not limited to: • Workplace documentation relevant to work area activities include: • specifications • manufacturing formulae • processing instructions • batch production records • Standard Operating Procedures (SOPs) • OHS information, including Material Safety Data Sheets (MSDS)

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge in: • prepare the extraction process for operation, including following line clearance procedures • load materials and solvents to maximize extract collection • Monitor the extraction process in each stage of washing . • Maintain all necessary records.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • purpose and principles of each stage of the extraction process, including the effect of herb density on filtration and packing process required for different types of herbs • basic operating principles of equipment, including main equipment components and equipment operating capacities and applications

	• quality requirements of materials and the effect of variation on the extraction process • process specifications, procedures and operating parameters for different products/materials • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the extraction process, such as inspecting, measuring and testing as required by the process, and the ability to calculate yields • contamination/food safety risks associated with the extraction process • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the risks involved with the use of solvents, such as ethanol, and the limitations of protective clothing and equipment used • extraction process shutdown and changeover procedures and responsibilities • environmental issues and controls relevant to the extraction process, including waste collection and handling procedures related to the process • cleaning and sanitation procedures • workplace documentation and authorization procedures
Underpinning Skills	Demonstrates skills to: • select, fit and use personal protective clothing and/or equipment • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and placing sand filters/scourers in base of percolators where required • start, operate, monitor and adjust process to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: ➢ density of herbs in percolator, including re-packing of percolator as required ➢ rate/amount of solvent addition ➢ extract collection and yield

	• take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • demonstrate batch/product changeovers including line clearance procedures • sort, collect, treat, recycle or dispose of waste • clean and sanitize equipment as required as required • complete workplace records as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Perform a Distillation Process**
Unit Code	**IND SHP2 10 0613**
Unit Descriptor	This unit has been developed for recovering of solvents of oleoresin during the extraction of spices and herbs. It covers the skills and knowledge required to start up, operate and shut down the distillation process.

Elements	Performance Criteria
1. Prepare the distillation process for operation	1.1 ***Product and materials*** are confirmed and available to meet production requirements. 1.2 Product and materials are prepared to meet production requirements. 1.3 ***Services*** are confirmed as available and ready for operation. 1.4 Equipment is checked to confirm readiness for use. 1.5 The ***process set up, operation and monitoring functions*** is set to meet production requirements and be performed free of ***work hazard***.
2. Operate and monitor the distillation process	2.1 The distillation process is started up according to workplace procedures. 2.2 ***Control points*** are ***monitored*** under process monitoring the to confirm performance within specification. 2.3 ***Confirming equipment*** is monitored to confirm operating condition. 2.4 Out-of-specification distillate, process and equipment performance are identified, rectified and/or reported.
3. Shut down the distillation process	3.1 The process is shut down according to workplace procedures. 3.2 ***Distillation equipment*** is dismantled and prepared for cleaning. 3.3 Work is conducted in accordance with workplace ***policies and procedures***.
4. Record information	4.1 ***Workplace information*** is recorded in the appropriate format and appropriate use of ***information systems***.

Variable	Range
Product and materials	May include but not limited to: • a range of miscellany of oleoresin
Services	May include but not limited to: • power

	• water (hot and cold) • steam
Process set up, operation and monitoring functions	May include but not limited to: • manual or involve the use of a process control system
Work hazards	May include but not limited to: • chemical, dangerous or hazardous substances
Control points	May include but not limited to: • food safety (critical) • quality and regulatory control points • inspection points
Monitoring the process	May include but not limited to: • the use of production data, such as speed control sheets • sampling • analytical tests
Confirming equipment	May include but not limited to: • checking that hygiene and sanitation standards, safety standards and pre-start requirements are met and that equipment is operational • checking the calibration status of measuring instrumentation
Distillation equipment	May include but not limited to: • pot still • pumps • lines and fittings • valves • heat exchangers • condensers • brandy ball • receivable vessels • temperature controls • test equipment (e.g. hydrometers and thermometers)
Policies and procedures	May include but not limited to: • Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Information systems	May include but not limited to: • print or screen based

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • use personal protective equipment and follow other specified OHS procedures • prepare products, including checks for temperature and alcoholic strength • prepare and confirm status of equipment before commencing distillation • monitor distillation process control points and equipment, including taking of samples and conducting of tests • take corrective action in response to out-of-specification results or non-compliance • perform routine and emergency shutdowns • demonstrate knowledge of OHS hazards, controls and emergency procedures • adhere to customs and excise regulations • Record information appropriately.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Purpose and principles of batch distillation, including definition of the following terms: ➢ pot still ➢ charge ➢ distillation ➢ oleoresin ➢ volatile and pungency components of spices and herbs • Types and operation of distillation systems for oleoresin production, including pot stills and continuous stills and the critical differences between them. This should include: ➢ structure and operation ➢ effect on characteristics of end product, including flavor, aromas, color l content, pungency complexity and smoothness • Stages and changes which occur during distillation. This will include changes in pungency and color strength and speed of distillation • Effect of process stages on different fractions of the distillate • Quality characteristics (specifications) for oleoresin product • Product and materials preparation requirements and effect of variation on the process • Process specifications, procedures and operating parameters • Equipment and instrumentation components, purpose and operation

	• Basic operating principles of process control systems where relevant
	• Sampling and testing procedures
	• Services used
	• Significance and method of monitoring control points within the process
	• Common causes of variation and corrective action required
	• Occupational Health and Safety (OHS) hazards and controls. This will include:
	  ➢ emergency flooding procedures
	  ➢ emergency evacuation procedures
	• Lock-out and tag-out procedures
	• Procedures and responsibility for reporting problems
	• Environmental issues and controls
	• Shutdown and cleaning requirements associated with changeovers and types of shutdowns
	• Recording requirements and procedures
	• Operational knowledge of Customs and Excise regulations
	• Waste handling requirements and procedures where relevant
	• Routine maintenance procedures where relevant
	• Transfer procedures where relevant

Underpinning Skills	Demonstrate skills to:
	• Access workplace information to identify distillation requirements
	• Select, fit and use personal protective clothing and/or equipment
	• Confirm supply of necessary product, materials and services.
	• This may include checking temperature and alcoholic strength
	• Liaise with other work areas
	• Prepare product and materials as required. This may include:
	  ➢ heating the incoming product
	  ➢ surveying vessel to be distilled
	  ➢ taking dips of distillation product
	  ➢ testing distillation product
	• Confirm equipment status and condition. This may include checking:
	  ➢ pot is empty
	  ➢ discharge valve is shut
	  ➢ water flow to condensers
	  ➢ receiver vessels for oleoresin product
	  ➢ pump operation
	  ➢ integrity of lines and fittings
	• Set up and start up the process. This will include any tests or procedures required to meet Customs and Excise regulations
	• Monitor the process and equipment operation to identify out-of-specification results or non-compliance. This may involve monitoring:

	➢ cooling water flow rates to condensers ➢ volume of charge ➢ temperature of distillate ➢ alcoholic strength of distillate ➢ heat source ➢ receiver for low wine ➢ pressure of still ➢ condensate rate or flow • Monitor supply and flow of product, materials and services to and from the process • Take corrective action in response to out-of-specification results or non-compliance • Report and/or record corrective action as required • Conduct product or batch changeovers • Take samples and conduct tests • Shut down equipment in response to an emergency situation • Shut down equipment in response to routine shutdown requirements • Prepare equipment for cleaning. This may involve draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation • Record workplace information. This will include meeting the requirements of Customs and Excise regulations • Maintain work area to meet housekeeping standards • Ensure that all Customs and Excise regulations are adhered to • Sort, collect, treat, recycle or dispose of waste according to enterprise procedures • Carry out routine maintenance according to enterprise procedures • Perform transfer operations according to enterprise procedures • Identify, rectify and/or report environmental non-compliance according to enterprise procedures • Use oral communication skills/language to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • Work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate a Separation Process**
Unit Code	**IND SHP2 11 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a separation process.

Elements	Performance Criteria
1. Prepare the separation process for operation	1.1. Materials are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. Equipment performance is checked and adjusted as required. 1.6. Pre-start checks are carried out as required by workplace requirements.
2. Operate and monitor the separation process	2.1. The process is started and operated according to workplace procedures. 2.2. ***Equipment*** is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The ***ingredients*** separation process is monitored to confirm that specifications are met. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***. 2.8. Workplace records are maintained according to workplace recording requirements. 2.9. ***Workplace information*** requirements and procedures are followed,

3. Shut down the separation process	3.1. The appropriate shutdown procedure is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Equipment	May include but not limited to: • mixers • sieves • pressure filters cloth
Ingredients	May include but not limited to: • fine powder spice • micelle • oleoresin • gum • solvent
Legislative requirements	May include but not limited to: • Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	May include but not limited to: • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • production schedules • recipe instructions

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • conduct pre-start checks on machinery used for separation • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls

	• safely shut down equipment • apply food safety procedures
Underpinning Knowledge and Attitudes	Demonstrate knowledge: • purpose and basic principles of the separation process, including stages and changes that occur during the separation process • basic operating principles of equipment, including safety hazards associated with separation equipment and the implications of interchanging parts/incorrect bowl balance • main equipment components, status and purpose of guards, equipment operating capacities and applications, the purpose and location of sensors and related feedback instrumentation, and services required for operation of separation equipment used in the workplace • the flow of the separation process and the effect of product output on downstream processes • impact of in-feed quality and concentration levels on the separation process • quality characteristics and uses of separation process outputs • methods used to monitor the separation process, such as inspecting, measuring and testing in-feed and out-feed solids, and other tests as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • common causes of variation and corrective action required, including how variation in temperature and solids affects the process • spoilage and other food safety risks associated with separation, and related control measures • Operational Health and Safety (OHS) hazards and controls, including limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • cleaning and sanitation procedures • product/process changeover procedures and responsibilities

	• procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the operation, including handling of effluent • basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance procedures where relevant
Underpinning Skills	Demonstrate skills: • purpose and basic principles of the separation process, including stages and changes that occur during the separation process • basic operating principles of equipment, including safety hazards associated with separation equipment and the implications of interchanging parts/incorrect bowl balance • main equipment components, status and purpose of guards, equipment operating capacities and applications, the purpose and location of sensors and related feedback instrumentation, and services required for operation of separation equipment used in the workplace • the flow of the separation process and the effect of product output on downstream processes • impact of in-feed quality and concentration levels on the separation process • quality characteristics and uses of separation process outputs • methods used to monitor the separation process, such as inspecting, measuring and testing in-feed and out-feed solids, color , and other tests as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • common causes of variation and corrective action required, including how variation in temperature ,mixing time and speed and solids affects the process • spoilage and other food safety risks associated with separation, and related control measures • Operational Health and Safety (OHS) hazards and controls, including limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the process and workplace production requirements, including

	emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • cleaning and sanitation procedures • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the operation, including handling of effluent • basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance procedures where relevant
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate a Bleaching Process**
Unit Code	**IND SHP2 12 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a bleaching process to remove color and impurities from partially refined oleoresin.

Elements	Performance Criteria
1. Prepare the bleaching equipment and process for operation	1.1. ***Materials*** are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Processing/operating parameters are entered as required to meet safety and production requirements. 1.5. ***Bleaching equipment*** performance is checked and adjusted as required. 1.6. Pre-start and ***service*** checks are carried out as required by workplace requirements.
2. Operate and monitor the bleaching process	2.1. The process is started and operated according to workplace procedures. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in ***operation of equipment and processes*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The process is monitored to confirm that bleached oleoresin oil meets color specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to workplace recording requirements.

	2.9. Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***. 2.10. ***Workplace information*** requirements and procedures are followed.
3. Shut down the bleaching process	3.1. The appropriate ***shutdown procedure*** is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Materials	May include but not limited to: • oleoresin oil • carbon or bleaching earth • filter aid • filter cloths • papers and bags
Bleaching equipment	May include but not limited to: • holding/storage tanks • bleaching vessel • pump • heat exchanger • filter system
Services	May include but not limited to: • power • steam • water • vacuum • compressed and instrumentation air
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Legislative requirements	May include but not limited to: • Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge in: • conduct pre-start checks on machinery used for bleaching oil products • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • purpose and basic principles of the bleaching process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the bleaching process and the effect of outputs on downstream processes • quality characteristics to be achieved by the bleaching process • quality requirements of materials and effect of variation in oil quality on bleaching process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

	• methods used to monitor the bleaching process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the bleaching process and the related procedures and recording requirements • contamination/food safety risks associated with the bleaching process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the bleaching process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the bleaching process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with bleaching process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrates skills to: • access workplace information to identify bleaching process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary oil, materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, confirming availability of tank space, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for bleaching process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational

	• start, operate, monitor and adjust bleaching process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: ➢ time/temperature ➢ contact time and agitation ➢ air contact ➢ product quality • monitor supply and flow of materials to and from the bleaching process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take bleaching process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers as required • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitize equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Perform Heat Exchange Operations**
Unit Code	**IND SHP2 13 0613**
Unit Descriptor	This unit has been developed for the cellar stream of the spice oleoresin extraction sector. It covers the skills and knowledge required to prepare for and operate the heat exchange process.

Elements	Performance Criteria
1. Prepare the heat exchange process for operation	1.1 ***Product and materials*** are confirmed and available to meet production requirements. 1.2 ***Services*** are confirmed as available and ready for operation. 1.3 ***Equipment*** is checked to confirm readiness for use. 1.4 The process is set to meet production requirements and be performed free of ***work hazard***.
2. Operate and monitor the heat exchange process	2.1 The heat exchange process is started up according to workplace procedures. 2.2 ***Control points*** are monitored to confirm performance is maintained within specification. 2.3 Heat exchanged product meets specification. 2.4 ***Confirming equipment status*** is monitored to confirm operating condition. 2.5 Out-of-specification product, process and equipment performance is identified, rectified and/or reported by ***monitoring the process***.
3. Shut down the heat exchange process	3.1 The process is shut down according to workplace procedures. 3.2 Equipment is prepared for cleaning. 3.3 Waste generated by both the process and cleaning procedures is collected, treated and disposed of, or recycled according to workplace procedures. 3.4 Work is conducted in accordance with workplace ***Policies and procedures***.
4. Record information	4.1 ***Workplace information*** is recorded in the appropriate format and appropriate use of ***information systems***.

Variable	Range
Policies and procedures	May include work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs)

	• specifications • production schedules and instructions • routine maintenance schedules • work notes • Material Safety Data Sheets (MSDS) • manufacturer instructions • verbal direction from manager, supervisor or senior operator
Equipment	May include a range of heat exchange units, including tube-in-tube (including pasteurizers), plate, scraped surface, in-place, counter current, primary and/or secondary refrigeration
Product and materials	May include a range of spice oleoresin product and water
Services	May include but not limited to: • power • water (hot and cold) • compressed air • inert gas • refrigerant • steam and Liquefied Petroleum Gas (LPG)
Confirming equipment status	May include but not limited to: • checking that hygiene and sanitation standards, safety standards and pre-start requirements are met and that equipment is operational • checking the operation and calibration status of measuring instrumentation
Monitoring the process	May include but not limited to: • the use of production data • checking tank levels, flow rates, incoming temperatures and outgoing temperature
Control points	May include but not limited to: • Control points refer to those key points in a work process that must be monitored and controlled. This includes: • food safety (critical) • quality and regulatory control points • inspection points
Information systems	May include but not limited to: • print or screen based
Work hazards	May include chemical, dangerous or hazardous substances

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • use personal protective equipment and follow other specified OHS procedures • check supply and status of product before commencing heat exchange operation

	• prepare and confirm status of equipment, including lines, vessels, hoses, valves and fittings before commencing heat exchange process • monitor heat exchange process control points and equipment • take corrective action in response to out-of-specification results or non-compliance • demonstrate knowledge of OHS hazards, controls and emergency procedures • Record information appropriately.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Purpose and principles of heat exchange operations • Types and operation of refrigerant systems • Link to related processes • Stages and changes which occur during heat exchange • Effect of process stages on end product • Quality characteristics and uses of heat exchanged product • Product and materials preparation requirements and effect of variation on the process • Main methods used to heat exchange product • Process specifications, procedures and operating parameters • Equipment and instrumentation components, purpose and operation • Basic operating principles of process control systems where relevant • Services used • Significance and method of monitoring control points within the process • Common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • Lock-out and tag-out procedures • Procedures and responsibility for reporting problems • Environmental issues and controls • Shutdown and cleaning requirements associated with changeovers and types of shutdowns • Waste handling requirements and procedures • Recording requirements and procedures
Underpinning Skills	• Access workplace information to identify heat exchange requirements • Select, fit and use personal protective clothing and/or equipment • Confirm supply of necessary product, materials and services • Liaise with other work areas • Confirm equipment status and condition. This may include: ➢ cleaning lines and receive tanks ➢ checking receivable vessel (in transfer operation)

	➢ checking product against processing specification ➢ checking integrity of hoses and fittings ➢ checking for leaks of chiller medium ➢ setting temperature and tank number ➢ setting pump speed • Start up the process • Monitor the process and equipment operation to identify out-of-specification results or non-compliance. This may involve monitoring: ➢ flow rate ➢ inlet and outlet temperatures ➢ heat exchange temperature settings ➢ product loss ➢ dilution ➢ oxidation ➢ relevant product characteristics (e.g. type and temperature) • Monitor supply and flow of product and materials to and from the process • Take corrective action in response to out-of-specification results or non-compliance • Conduct product or batch changeovers • Report and/or record corrective action as required • Sort, collect, treat, recycle or dispose of waste • Shut down equipment in response to an emergency situation • Shut down equipment in response to routine shutdown requirements • Record workplace information • Maintain work area to meet housekeeping standards • Prepare equipment for cleaning. This may involve draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation • Identify, rectify and/or report environmental non-compliance • Use oral communication skills/language to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • Work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Operate an Aseptic Fill and Seal Process**
Unit Code	**IND SHP2 14 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down an aseptic fill and seal process. This is a primary packaging process to fill product into packaging.

Elements	Performance Criteria
1. Prepare the filling and sealing equipment and process for operation	1.1. Materials and packaging components/consumables are confirmed and available to meet operating requirements. 1.2. Cleaning and maintenance requirements and status are identified and confirmed. 1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4. Operating parameters are entered as required to meet safety and production requirements. 1.5. ***Filling and sealing equipment*** performance is checked and adjusted as required. 1.6. Pre-start and ***service*** checks are carried out as required by workplace requirements.
2. Operate and monitor the filling and sealing process	2.1. The process is started and operated according to workplace procedures. 2.2. Equipment is monitored to identify variation in operating conditions. 2.3. Variation in ***operation of equipment and processes*** is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. Packaging quality and seal integrity are monitored to confirm ***Sterilization methods*** specifications are met. 2.5. Out-of-specification process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace ***legislative requirements*** and ***policies and procedures***. 2.8. Spillages are reported and removed according to standard operating procedures.

	2.9. Workplace records are maintained according to workplace recording requirements. 2.10. ***Workplace information*** requirements and procedures are followed.
3. Shut down the filling and sealing process	3.1. End-of-batch procedures are completed in accordance with batch instructions and Standard Operating Procedures (SOPs). 3.2.The appropriate ***shutdown procedure*** is identified. 3.3. The process is shut down according to workplace procedures. 3.4. Maintenance requirements are identified and reported according to workplace reporting requirements.

Variable	**Range**
Filling and sealing equipment	May include but not limited to: • pumps • aseptic fillers • hermetic sealers • aseptic packaging
Services	May include but not limited to: • power • steam • water • vacuum • compressed and instrumentation air
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Sterilization methods	May include but not limited to: • use of heat (dry and steam) • chemicals (gases and liquids) • gamma irradiation • filtration
Legislative requirements	May include but not limited to: • relevant Good Manufacturing Practice (GMP) codes • the Therapeutic Goods Act and/or other relevant legislation • legislation covering environmental management, OHS, anti-discrimination and equal opportunity
Policies and procedures	May include work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	May include but not limited to: • SOPs

	• specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • conduct pre-start checks on equipment used for filling and sealing • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply GMP principles and procedures to work practices • Maintain standards of a clean room work environment.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • purpose and basic principles of filling and sealing, including properties of packaging materials used, the principles of heat sterilization and its effect on microbiological characteristics of the product and packaging materials, and the filling process (methods may require exclusion of air using inert gas, such as nitrogen and filling under vacuum) • aseptic container preparation, handling and loading • basic operating principles of aseptic filling and sealing equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, the purpose and location of sensors and related feedback instrumentation, and services required for operation of filling equipment used in the workplace • quality characteristics and legal requirements to be achieved by the filling and sealing process, such as quality requirements of packaging components/consumables, sterilization requirements and procedures, filling (fill levels and weights), requirements of seal formation and integrity, and where relevant, understanding integrity testing procedures • the flow of processes supplying the filling and sealing process and the effect of outputs on downstream processes

	• operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • Good Manufacturing Practice (GMP) requirements associated with the liquid manufacturing process and related control measures • common causes of variation and corrective action required, including the effect of variation in both product and packaging components/consumables on filling and sealing performance, e.g. it may include an understanding of the effect of temperature variation on the filling process • product/packaging changeover procedures • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • end-of-batch procedures, including procedures for calculating yield, materials reconciliation and action required if yield/reconciliation is not within prescribed limits, and product labeling responsibilities and procedures • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • line clearance, cleaning and sanitation procedures • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the filling and sealing process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing procedures where relevant • routine maintenance procedures where relevant
Underpinning Skills	Demonstrates skills to: • access workplace information to identify processing requirements

	• select, fit and use personal protective clothing and/or equipment, including gowning up, following required work area entry and exit procedures and moving around the work area to minimize risk of contamination • confirm supply of necessary packaging components/consumables and product • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, disinfecting and sterilizing equipment and surfaces, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for packaging requirements, ensuring packaging components/consumables are loaded, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust the filling and sealing process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: ➢ flow rates ➢ weights and volumes ➢ fill levels • temperature, including materials and sealing temperatures • supply of packaging components/consumables • packaging quality and seal integrity, and where required, testing packaging integrity • take corrective action in response to out-of-specification results • monitor supply and flow of materials to and from the process • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take filling and sealing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate product/process changeovers • follow end of batch procedures including line clearance and cleaning, yield calculation, materials reconciliation and product labeling • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures

	• collect samples and conduct tests according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Implement the Food Safety Program and Procedures**
Unit Code	**IND SHP2 15 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required maintaining personal hygiene and conduct food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves operation of production and/or packaging equipment and processes.

Elements	Performance Criteria
1. Implement the food safety program	1.1. Food handling requirements are identified. 1.2. ***Food handling*** is carried out according to the ***food safety program***. 1.3. ***Food safety hazards*** are controlled as required by the food safety program. 1.4. Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken. 1.5. Food safety information is recorded to meet requirements of the food safety program. 1.6. The workplace is maintained in a clean and tidy order to meet workplace standards. 1.7. Work is conducted in accordance with workplace environmental guidelines.
2. Participate in maintaining and improving food safety	2.1. ***Monitoring*** work area, ***materials , product*** and equipment are routinely performed to ensure compliance with food safety requirements. 2.2. Food safety procedures, practices or conditions which could result in a ***food safety procedures breach*** are identified and reported according to workplace reporting requirements. 2.3. Corrective action is taken in accordance with the food safety program. 2.4. ***Workplace information*** requirements and procedures are followed. 2.5. Food safety issues are raised with designated personnel.
3. Comply with personal hygiene standards	3.1. Personal ***hygiene requirements*** that meet the food safety program are used. 3.2. ***Reporting of health conditions and illnesses requirements*** are done as required by the food safety program.

	3.3. ***Appropriate clothing and footwear*** worn is made appropriate for the food handling task and meets the requirements of the food safety program. 3.4. Movement around the workplace that complies with the food safety program are conducted.

Variable	**Range**
Food handling	May include but not limited to: • food receipt and storage • food preparation • cooking, holding, cooling, chilling and reheating • packaging, disposal
A food safety program	is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Food safety hazard	is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect
Monitoring	May include but not limited to: • taking temperatures • collecting samples • conducting visual inspections • conducting other tests as required
Materials **/** Products	May include but not limited to: • raw materials • ingredients • consumables • part-processed product • finished product • cleaning materials
Breach of food safety procedures	May include but not limited to: • failure to check delivery temperatures of potentially hazardous chilled food • failure to place temperature-sensitive food in temperature controlled storage conditions promptly • failure to wash hands when required • use of cloths for unsuitable purposes
Workplace information	May include but not limited to: • food safety program • Standard Operating Procedures (SOPs)

	• specifications • log sheets • written or verbal instruction
Hygiene requirements	May include but not limited to: • Minimum personal hygiene requirements are specified by the food safety program.
Reporting of health conditions and illnesses requirements	are specified by the food safety program.
Appropriate clothing and footwear	May include but not limited to: • purpose designed overalls or uniforms • hair-nets • beard snoods • gloves • overshoes
Responsibility for monitoring food safety	identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • identify own responsibilities with regard to food safety • identify food safety risks in the workplace and the control measures used to manage them • apply control measures in own work • monitor compliance with food safety standards • identify and act on non-compliances and participate in improving safety • maintain required standards of personal hygiene • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • sources of information and expertise on procedures and responsibilities for food safety relating to own work • basic concepts of HACCP-based food safety, including identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met • food safety management arrangements in the workplace, including awareness of food safety legislation, workplace policies and procedures to implement responsibilities, understanding the relationship between the quality system and

	food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events, and performance improvement processes • awareness of common microbiological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence • basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used • suitable standard for materials, measuring devices, equipment and utensils used in the work area • food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work • methods used to monitor that food safety is under control, including the purpose of sampling and taking measurements, such as temperature and pH, and conducting inspections and tests • action required in the event of non-compliance (corrective action is typically described in the food safety program and/or related workplace information) • purpose of keeping records and the recording requirements of the food safety program • methods used in the workplace to isolate or quarantine food which may be unsafe • product and ingredient traceability procedures, such as product recall where required by work responsibilities • clothing and footwear requirements for working in and/or moving between food handling areas • personal clothing maintenance, laundering and storage requirements • appropriate bandages and dressings to be used when undertaking food handling • housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where relevant • procedures to follow in the event of pest sighting or discovery of infestation • purpose and importance of cleaning and sanitation procedures • waste collection, recycling and handling procedures relevant to own work responsibilities

	• cleaning and sanitation procedures where relevant • impact of rework handling/addition on food safety where relevant • sampling and test methods where relevant
Underpinning Skills	food safety information relating to the workplace, including a food safety program outlining food safety hazards and control methods. It may also include company policies, procedures and codes of practice, such as: • Good Manufacturing Practice (GMP) • related work instructions and procedures • work tasks and responsibilities • appropriate clothing and related apparatus • reporting and monitoring systems • cleaning and sanitation policies and procedures as required • Sampling and test procedures and related equipment as required.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level II	
Unit Title	**Participate in Environmentally Sustainable Work Practice**
Unit Code	**IND SHP2 16 0613**
Unit Descriptor	This competency covers the outcomes required to effectively measure current resource use and carry out improvements including those reducing negative environmental impacts of work practices.

Elements	Performance Criteria
1. Identify current resource use and environmental issues.	1.1. Workplace ***environmental and resource efficiency issues*** are identified. 1.2. Resources used in own work role are identified. 1.3. Current usage of resources is ***measured*** and recorded using ***appropriate techniques***. 1.4. Workplace environmental hazards are identified and reported to appropriate personnel.
2. Comply with environmental regulations.	2.1. ***Procedures*** are followed to ensure ***compliance***. 2.2. Environmental ***incidents*** are reported to appropriate personnel.
3. Seek opportunities to improve environmental practices and resource efficiency.	3.1. ***Enterprise plans*** are followed to improve environmental practices and resource efficiency. 3.2. ***Suggestions*** are made for improvements to workplace practices in own work area.

Variable	Range
Environmental and resource efficiency issues	May include but not limited to: • minimization of environmental risks and maximization of opportunities to improve business environmental performance and to promote more efficient production and consumption of natural resources, for example by: • minimization of waste, through implementation of the waste management hierarchy • efficient and effective use of energy and other resources • seeking alternative sources of energy • efficient use of materials and appropriate disposal of waste • use of controls to minimize the risk of environmental damage from hazardous substances • efficient water use • reducing emissions • life cycle analysis applied to issues such as energy supply, materials, transport, production

Measure	Measure should be interpreted in a manner consistent with the scope of the job and may include things like: • counting the number of items entering/leaving a work area • reading indicators in the work area • obtaining relevant information from support personnel • other simple means
Appropriate techniques	May include but not limited to: • material fed to/consumed by plant/equipment • plant meters and gauges • job cards including kanbans • examination of invoices from suppliers • measurements made under different conditions • Examination of relevant information and data.
Procedures	May include but not limited to: • All operations are performed in accordance with procedures including all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.
Compliance	May include but not limited to: • Compliance includes meeting relevant federal, state and local government laws, by-laws, regulations and mandated codes of practice. It also includes any codes and standards that the enterprise applies voluntarily.
Incidents	• breaches or potential breaches of regulations • Occurrences outside of standard procedure which may lead to lower environmental performance.
Enterprise plans	May include but not limited to: • documented policies and procedures • work plans to minimize waste, increase efficiency of water/energy use, minimize environmental hazards
Suggestions	May include but not limited to: • prevent and minimize environmental risks and maximize opportunities • reduce emissions of greenhouse gases • reduce use of non-renewable resources • improve energy efficiency • increase use of renewable, recyclable, reusable and recoverable resources • reduce waste • increasing the reusability/recyclability of wastes/products • Reduce water usage and/or water wastage.

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • identify and measure resources used in their job

	• identify situations likely to lead to an environmental incident • Follow procedures related to environmental performance. • work is routinely to procedures • The minimum of resources is used consistent with the job requirements, good practice and the procedures.
Underpinning Knowledge and Attitudes	Demonstrates sufficient knowledge to : • have a basic understanding of sustainability • know the environmental hazards/risks, resource use and inefficiencies associated with own workplace (at an appropriate level) • know the relevant environmental and resource efficiency systems and procedures for own work area • know the impact of laws and regulations to a level relevant to the work context
Underpinning Skills	Demonstrates skills of: • report as required by procedures • follow procedures and instructions and respond to change • ask questions and seek clarifications relating to work requirements • Reading and writing is required in order to interpret required procedures and complete required workplace forms/reports. • Numeracy is required to interpret numeric workplace information, readings and measurements, handle data as required and complete numeric components of workplace forms/reports.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spice and Herbs Processing Level II	
Unit Title	**Participate in Workplace Communication**
Unit Code	**IND SHP2 17 0613**
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

Elements	Performance Criteria
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from ***appropriate sources***. 1.2 Effective questioning , active listening and speaking skills are used to gather and convey information. 1.3 Appropriate ***medium*** is used to transfer information and ideas. 1.4 Appropriate non- verbal communication is used. 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed. 1.6 Defined workplace procedures for the location and ***storage*** of information are used. 1.7 Personal interaction is carried out clearly and concisely.
2. Participate in workplace meetings and discussions	2.1 Team meetings are attended on time. 2.2 Own opinions are clearly expressed and those of others are listened to without interruption. 2.3 Meeting inputs are consistent with the meeting purpose and established ***protocols***. 2.4 ***Workplace interactions*** are conducted in a courteous manner. 2.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to. 2.6 Meetings outcomes are interpreted and implemented.
3. Complete relevant work related documents	3.1 Range of ***forms*** relating to conditions of employment is completed accurately and legibly. 3.2 Workplace data is recorded on standard workplace forms and documents. 3.3 Basic mathematical processes are used for routine calculations, 3.4 Errors in recording information on forms/ documents are identified and properly acted upon.

	3.5 Reporting requirements to supervisor are completed according to organizational guidelines.

Variable	Range
Appropriate sources	May include but not limited to: • Team members • Suppliers • Trade personnel • Local government and Industry bodies
Medium	May include but not limited to: • Memorandum • Circular • Notice • Information discussion • Follow-up or verbal instructions • Face to face communication
Storage	May include but not limited to: • Manual filing system • Computer-based filing system
Protocols	May include but not limited to: • Observing meeting • Compliance with meeting decisions • Obeying meeting instructions
Workplace interactions	May include but not limited to: • Face to face • Telephone • Electronic and two way radio • Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
Forms	May include personnel forms, telephone message forms, safety reports

Evidence Guide	
Critical Aspects of Competency	Assessment requires evidence that the candidate to: • Prepare written communication following standard format of the organization • Access information using communication equipment • Make use of relevant terms as an aid to transfer information effectively • Convey information effectively adopting the formal or informal communication
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Effective communication • Different modes of communication

	• Written communication • Organizational policies • Communication procedures and systems • Technology relevant to the enterprise and the individual's work responsibilities
Underpinning Skills	Demonstrate skills to: • Follow simple spoken language • Perform routine workplace duties following simple written notices • Participate in workplace meetings and discussions • Complete work related documents • Estimate, calculate and record routine workplace measures • Basic mathematical processes of addition, subtraction, division and multiplication • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace Requirements
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spice and Herbs Processing Level II	
Unit Title	**Work in Team Environment**
Unit Code	**IND SHP2 18 0613**
Unit Descriptor	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

Elements	Performance Criteria
1. Describe team role and scope	1.1 The ***role and objective of the team*** are identified from available ***sources of information***. 1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.
2. Identify own role and responsibility within team	2.1 Individual role and responsibilities within the team environment are identified. 2.2 Roles and responsibility of other team members are identified and recognized. 2.3 Reporting relationships within team and external to team are identified.
3. Work as a team member	3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives. 3.2 Effective and appropriate contributions are made to complement team activities and objectives, based on individual skills and competencies and ***workplace context***. 3.3 Protocols are observed in reporting using standard operating procedures. 3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

Variable	Range
Role and objective of team	• Work activities in a team environment with enterprise or specific sector • Limited discretion, initiative and judgment maybe demonstrated on the job, either individually or in a team environment
Sources of information	• Standard operating and/or other workplace procedures • Job procedures • Machine/equipment manufacturer's specifications and instructions • Organizational or external personnel

	• Client/supplier instructions • Quality standards • OHS and environmental standards
Workplace context	• Work procedures and practices • Conditions of work environments • Legislation and industrial agreements • Standard work practice including the storage, safe handling and disposal of chemicals • Safety, environmental, housekeeping and quality guidelines

Evidence Guide	
Critical Aspects of competence	Assessment requires evidence that the candidate to: • Operate in a team to complete workplace activity • Work effectively with others • Convey information in written or oral form • Select and use appropriate workplace language • Follow designated work plan for the job • Report outcomes
Underpinning Knowledge and Attitude	Demonstrate knowledge of: • Communication process • Team structure • Team roles • Group planning and decision making
Underpinning Skills	Demonstrate skills to: • Communicate appropriately, consistent with the culture of the workplace
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spice and Herbs Processing Level II	
Unit Title	**Develop Business Practice**
Unit Code	**IND SHP2 19 0613**
Unit Descriptor	This unit specifies the outcomes required to establish a business operation from a planned concept. It includes researching the feasibility of establishing a business operation, planning the setting up of the business, implementing the plan and reviewing operations once commenced.

Elements	Performance Criteria
1. Identify business opportunity	1.1 ***Business opportunities*** are investigated and identified. 1.2 Feasibility study is undertaken to determine likely ***business viability***. 1.3 Market research on product or service is undertaken. 1.4 Assistance with feasibility study of ***specialist and relevant parties*** is sought as required. 1.5 Impact of emerging or changing technology including e-commerce, on business operations is evaluated. 1.6 Practicability of business opportunity is assessed in line with perceived risks, returns sought and resources available. 1.7 Business plan is completed for operation.
2. Identify personal business skills	2.1 Financial and business skills available are identified and taken into account when business opportunities are researched. 2.2 ***Personal skills/attributes*** are assessed and matched against those perceived as necessary for a particular business opportunity. 2.3 ***Business risks*** are identified and assessed according to resources available and personal preferences.
3. Plan for establishment of business operation	3.1 Business structure and operations are determined and documented. 3.2 Procedures are developed and documented to guide operations. 3.3 Financial backing is secured for business operation. 3.4 Business legal and regulatory requirements are identified and complied. 3.5 ***Human and physical resources*** required to commence business operation are determined. 3.6 Recruitment strategies are developed and implemented.

4. Implement establishment plan	4.1 Marketing of business operation is undertaken. 4.2 Physical and human resources are obtained to implement business operation. 4.3 ***Operational unit*** is established to support and coordinate business operation. 4.4 Monitoring process is developed and implemented for managing operation. 4.5 ***Legal documents*** are carefully maintained and relevant records are kept and updated to ensure validity and accessibility, 4.6 Contractual procurement rights for goods and services including ***contracts with relevant people****,* negotiated and secured as required in accordance with the business plan. 4.7 Options for leasing/ownership of business premises identified and contractual arrangements are completed in accordance with the business plan.
5. Review implementation process	5.1 Review process for implementation of business operation is developed and implemented. 5.2 Improvements in business operation and associated management process are identified. 5.3 Identified improvements are implemented and monitored for effectiveness.

Variable	**Range**
Business opportunities	maybe influenced by: • expected financial viability • skills of operator • amount and types of finance available • returns expected or required by owners • likely return on investment • finance required and lifestyle issues
Business viability	may include: • opportunities available • market competition • timing/ cyclical considerations • skills available • resources available • location and/ or premises available • risk related to a particular business opportunity, especially • in regard to Occupational Health and Safety and • environmental considerations

Specialist and relevant parties	• Chamber of commerce • Financial planners and financial institution representatives, business planning specialists and marketing specialists • accountants • lawyers and providers of legal advice • government agencies • industry/trade associations • online gateways • business brokers/business consultants
Personal skills/attributes may include:	• technical and/ or specialist skills • business knowledge and skills • entrepreneurship and willingness to take risks
Business risks	May include but are not restricted to: • occupational health and safety and environmental • considerations • relevant legislative requirements • security of investment • market competition • security of premises/ location • supply and demand • resources available
Human and physical resources	may include: • software and hardware • office premises • communications equipment • specialist services through outsourcing, contracting and • consultancy • staff and vehicles
Operational unit refers to:	• office location staffed with required personnel and equipped to service and support business • home-based site or other location such as leased or owned property
Legal documents	may include: • partnership agreements, constitution documents, statutory books for companies (Register of Members, Register of Directors and Minute Books), Certificate of Incorporation, Franchise Agreements and financial documentation, appropriate software for financial records • recordkeeping including personnel, financial, taxation, OHS and environmental
Contracts with relevant people	may include: • owners, suppliers, employees, landlords, agents, distributors, customers or any person with whom the business has, or seeks to have, a performance-based relationship

Evidence Guide	
Critical Aspects of Competence	A person must be able to provide evidence: • that a business operation has been planned and implemented from initial research into feasibility of the business and completion of the plan, through to implementing the plan and commencing operations • the ability to evaluate the results of research and assess the likely viability and practicability of a business opportunity, taking into account the current business/market climate and resources available
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Federal and regional government legislative requirements affecting business operations, especially in regard to Occupational Health and Safety (OHS), Equal Employment Opportunity (EEO), industrial relations and anti-discrimination • Technical or specialist skills relevant to the business operation • Financing options • Business systems and operations • Relevant marketing, management, sales and financial concepts • Methods for researching business opportunities • Principles of risk management relevant to the business • Methods of identifying relevant specialist services to complement the business • Forms and administrative systems • Services available and charges • Planning and control systems (sales, • Advertising and promotion, distribution and logistics • Financial recording systems • Legal rights and responsibilities • Record keeping duties • Operational factors relating to the business (provision of professional services, products)
Underpinning Skills	Demonstrate skills of: • Literacy skills to interpret legal requirements, company policies and procedures and immediate, day-to-day demands • Marketing skills • Business planning skills • Entrepreneurial skills • Problem-solving skills • OHS skills • Time management skills • Belief in services and products offered by the business

	• Communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback • Technical and analytical skills to interpret business documents, reports and financial statements and projections • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities • Problem solving skills to develop contingency plans • Using computers and software packages to record and manage data and to produce reports • Literacy skills to enable interpretation of business information, numeracy skills for data analysis to aid research • Research skills to identify a business opportunity and to conduct a feasibility study • Analytical skills to assess personal attributes and to identify business risks • Observation skills for identifying appropriate people, resources and to monitor work
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spice and Herbs Processing Level II	
Unit Title	**Standardize and Sustain 3S**
Unit Code	**IND SHP2 20 0613**
Unit Descriptor	This unit of competence covers the knowledge, skills and attitudes required by worker to standardize and sustain 3S to his/her workplace. It covers responsibility for the day- to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	1.1 Work instructions are used to determine job requirements, including method, material and equipment. 1.2 Job specifications are read and interpreted following working manual. 1.3 ***OHS requirements***, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work. 1.4 ***Safety equipment and tools*** are identified and checked for safe and effective operation. 1.5 ***Tools and equipment*** are prepared and used to implement 3S.
2. Standardize 3S.	2.1 Plan is prepared and used to standardize 3S activities. 2.2 ***Tools and techniques*** to standardize 3S are prepared and implemented based on ***relevant procedures***. 2.3 Checklists are followed for standardize activities and ***reported*** to ***relevant personnel***. 2.4 The workplace is kept to the specified standard. 2.5 Problems are avoided by standardizing activities.
3. Sustain 3S.	3.1 Plan is prepared and followed to standardize 3S activities. 3.2 ***Tools and techniques*** to sustain 3S are discussed, prepared and implemented based on relevant procedures. 3.3 Workplace is inspected regularly for compliance to specified standard and sustainability of 3S techniques. 3.4 Workplace is cleaned up after completion of job and before commencing next job or end of shift. 3.5 Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken. 3.6 Improvements are recommended to lift the level of compliance in the workplace.

	3.7 Checklists are followed to sustain activities and reported to relevant personnel. 3.8 Problems are avoided by sustaining activities.

Variable	Range
OHS requirements	May include but not limited to: • Are to be in accordance with legislation/ regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances. • Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices. • Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization. • Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.
Safety equipment and tools	May include but not limited to: • dust masks / goggles • glove • working cloth • first aid • safety shoes
Tools and equipment	May include but not limited to: • paint • hook • sticker • signboard • nails • shelves • chip wood • sponge • broom • pencil • shadow board/ tools board
Tools and techniques	May include but not limited to: • 5S Job Cycle Charts • Visual 5S • The Five Minute 5S

	• Standardization level checklist • 5S checklist • The five Whys and one How approach(5W1H) • Suspension • Incorporation • Use Elimination
Relevant procedures	May include but not limited to: • Assign 3S responsibilities • Integrate 3S duties into regular work duties • Check on 3S maintenance level • OHS measures such as signage, symbols / coding and labeling of workplace and equipment • Creating conditions to sustain your plans • Roles in implementation
Reporting	May include but not limited to: • verbal responses • data entry into enterprise database • brief written reports using enterprise report formats
Relevant personnel	May include but not limited to: • supervisors, managers and quality managers • administrative, laboratory and production personnel • internal/external contractors, customers and suppliers
Tools and techniques	May include but not limited to: • 5S slogans • 5S posters • 5S photo exhibits and storyboards • 5S newsletter • 5S maps • 5S pocket manuals • 5S department/benchmarking tours • 5S months • 5S audit • Awarding system • Big cleaning day • Patrolling system may include: ➢ Top management Patrol ➢ 5S Committee members and Promotion office Patrol ➢ Mutual patrol ➢ Self-patrol ➢ Checklist and Camera patrols

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • Discuss the relationship between Kaizen elements.

	• Standardize and sustain 3S activities by applying appropriate tools and techniques.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Elements of Kaizen • Ways to improve Kaizen elements • Benefits of improving kaizen elements • Relationship between Kaizen elements • The fourth pillar of 5S • Benefits of standardizing and sustaining 3S • Procedures for standardizing and sustaining 3S activities • Tools and techniques to sustain 3S • Relevant Occupational Health and Safety (OHS) and environment requirements • Plan and report • Method of communication
Underpinning Skills	Demonstrates skills of: • improving Kaizen elements by applying 5S • standardizing and sustaining procedures and techniques to avoid problems • technical drawing • procedures to standardizing 3S activities • analyzing and preparing shop layout of the workplace • standardizing and sustaining checklists • preparing and implementing tools and techniques to sustain 3S • working with others • reading and interpreting documents • observing situations • solving problems by applying 5S • communication skills • preparing labels, slogans, etc. • gathering evidence by using different means • using Kaizen board properly in accordance the procedure • reporting activities and results using report formats
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

NTQF Level III

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Set up a Production Line for Operation**
Unit Code	**IND SHP3 01 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up multiple production or packaging processes and/or conduct multiple process changeovers for operation by others.

Element	Performance Criteria
1. Prepare for line setup	1.1. Materials are confirmed and available to meet production requirements. 1.2. ***Equipment*** and related accessories are confirmed, available and fit for use to meet production requirements. 1.3. Tools and equipment required for line setup are made available, operational and fit for use to meet operational requirements. 1.4. Processing parameters and settings are identified to meet production or packaging requirements.
2. Set up the line for operation	2.1. Cleaning and maintenance requirements and status are identified and confirmed. 2.2. Equipment is inspected to confirm condition. 2.3. Machine settings are selected or adjusted as required to meet safety and production requirements. 2.4. Processing or packaging parameters are entered as required to meet production requirements. 2.5. Equipment performance is checked and adjusted as required. 2.6. Pre-start checks are carried out as required by workplace requirements. 2.7. Line setup is completed to match production or packaging schedule and operating requirements. 2.8. The line is ready and safe to operate and any maintenance requirements are reported according to workplace reporting requirements. 2.9. Work is conducted in accordance with workplace environmental guidelines. 2.10. Relevant personnel are notified of setup completion.

Variables	Range
Equipment	May include but not limited to: • limited use of hand tools, such as Allen keys and screwdrivers, within level of responsibility
Policies and procedures	May include work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • standard forms and reports
Confirming cleaning requirements and status	May include but not limited to: • accessing cleaning records

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • conduct pre-start checks on machinery used for production to determine cleaning, maintenance and operation readiness • determine production parameters and requirements • set up line according to production requirements • take corrective action in response to typical faults and inconsistencies • complete workplace records and communicate line status with other personnel as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures.
Underpinning Knowledge	Demonstrate Knowledge of: • basic operating principles of equipment and related accessories, including equipment adjustment points, range and location/alignment requirements of sensors and related feedback instruments, and status and purpose of guards • operating capacities of equipment used in the work area, such as different types of equipment and/or components as required by processing operations

	• nature of setup/changeover requirements, such as product compatibility and related cleaning requirements, impact of variation in materials or product on setup requirements, equipment and/or attachment changeovers related to given products • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • pre-start checks required by setup/changeover • related processes and personnel dependent on line setup, and communication responsibilities • isolation, lock out and tag out procedures and responsibilities • Occupational Health and Safety (OHS) hazards and controls • procedures and responsibility for reporting equipment performance information • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance requirements and procedures where relevant
Underpinning Skills	Demonstrate skills to: • access production/packing schedule and related information to identify line setup/changeover requirements, such as checking product sequencing and compatibility, confirming that the required cleaning and/or sanitation has occurred and required packaging components and consumables are available as appropriate • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary equipment and related attachments, materials and services for production • confirm supply of necessary equipment and services to carry out setup operations • set and/or adjust equipment to meet production/packaging requirements, including selecting the required parameters or equipment settings, and changing processing set points as required • position safety guards and cancel isolation/lockouts ready for operation • confirm that sensors and related feedback instruments are correctly positioned and operational • operate equipment to confirm equipment setup and make final adjustments as required • time setup activities to meet production requirements

	• advise affected work areas/personnel of completion of setup • maintain work area to meet housekeeping standards • load and/or position materials/ingredients/product and/or packaging consumables according to enterprise procedures • use the control panel/system to set and adjust equipment components according to enterprise procedures • conduct routine maintenance according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Operate Interrelated Processes in a Production System**
Unit Code	**IND SHP3 02 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate and adjust interrelated processes in a production system.

Elements	Performance Criteria
1. Prepare the production system for operation	1.1. Equipment, materials and services are confirmed and available to meet production requirements. 1.2. Cleaning ***requirements*** and equipment status are identified and confirmed. 1.3. Machine settings are selected or adjusted as required to meet safety and production requirements. 1.4. Processing/operating parameters are entered as required to meet production requirements. 1.5. Materials, ingredients and/or product are loaded or positioned as required to meet production requirements. 1.6. Pre-start checks are carried out as required by workplace requirements. 1.7. Equipment performance is checked and adjusted as required. 1.8. Equipment is made ready and safe to operate.
2. Operate and monitor the production system	2.1. The ***system*** is started up and operated according to company ***policies and procedures***. 2.2. System equipment components are monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements, 2.4. The production system is monitored to confirm that specifications are met. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines.

3. Hand over production system operation	3.1. Workplace records are maintained according to workplace recording requirements. 3.2. ***Handover*** is carried out according to workplace procedures. 3.3. Process operators are made aware of system and related equipment status at completion of handover.
4. Shut down the production system	4.1. The appropriate shutdown procedure is identified. 4.2. The system is shut down according to workplace procedures. 4.3. Maintenance requirements are identified and reported.
5. Contribute to continuous improvement of the production system	5.1. System performance is reviewed against output plan/targets. 5.2. Opportunities are identified and investigated for system improvement. 5.3. Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures.

Variable	**Range**
Requirements	May include but not limited to: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Systems	May include but not limited to: • a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome
Policies and procedures	May include but not limited to: • Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Handovers	Handovers may be done: • in person or via recording/communication systems according to workplace arrangements
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • performance records and reports
System operation	May include but not limited to: • coordination of operators of system components
Operation and monitoring of equipment and system processes	May include but not limited to: • the use of control panels and systems

Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on production system components • confirm machine setup is ready to achieve production requirements • correctly use required personal protective equipment • start, operate, monitor and adjust process equipment throughout the system to achieve required quality outcomes • identify system problems and take corrective action • conduct operational handovers • shut down system • identify and investigate opportunities for operational improvements within areas of responsibility • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the production system, including the system process flow, the interrelationships of each process to identify the impact of variation on related processes, and optimization options • basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments • operating capacities of equipment used in the system, such as different types of equipment and/or components as required by processing/packaging operations • related systems and responsibilities for interaction, such as related production systems, services supply, packaging/warehousing, maintenance, laboratory/quality assurance and planning and scheduling • product characteristics and common types of variation in materials and/or ingredients used, including the effect of variation on each stage of the system and scope to adjust or correct • typical production related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials, incorrect settings and poor operator control

	• relevant procedures, specifications and operating parameters for the system and the individual processes • isolation, lock out and tag out procedures and responsibilities • hazards, risks, controls and methods for monitoring processes within the system, including Occupational Health and Safety (OHS), food safety, quality and environmental hazards and risks • workplace system and approach to equipment maintenance • process improvement procedures and related consultative arrangements • troubleshooting procedures and problem solving techniques • communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues • procedures and responsibility for reporting production and performance information
Underpinning Skills	Demonstrate skills to: • access production schedule and related information to identify system output and operating requirements, such as planning daily production schedules and/or modifying plans to respond to operating conditions and customer requirements • liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labor to meet production requirements • confirm supply of necessary equipment and related attachments, materials and services • select, fit and use personal protective clothing and/or equipment • set and/or adjust equipment to meet process output requirements, including inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lock outs are cancelled as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational (checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks) • load and/or position materials, ingredients and/or product as required • operate and monitor the production system, such as use of a process control system and/or observing/supporting others to follow correct operating procedures • monitor materials flow and work-in-progress through the system

	• confirm that the system operates within specified parameters and inspection/ control points are monitored • determine responses to out-of-specification results or non-conformance within level of responsibility • monitor operating efficiencies of the system, including recognition of signs and symptoms of faulty equipment and early warning signs of other potential problems • investigate, resolve and/or report problems and faults • plan scheduled events to minimize disruption to production • conduct/coordinate product or batch changeovers • conduct/coordinate shift handovers • review and maintain procedures to support system improvements • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Operate Interrelated Processes in a Packaging System**
Unit Code	**IND SHP3 03 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate and adjust interrelated processes in a packaging system.

Elements	Performance Criteria
1. Prepare the packaging system for operation	1.1. Equipment, materials and services are confirmed and available to meet packaging requirements. 1.2. Cleaning requirements and equipment status are identified and confirmed. 1.3. Machine settings are selected or adjusted as required to meet safety and production requirements. 1.4. Operating parameters are entered as required to meet production requirements. 1.5. Product and/or packaging components and consumables are loaded or positioned as required to meet packaging requirements. 1.6. Pre-start checks are carried out as required by workplace requirements. 1.7. Equipment performance is checked and adjusted as required. 1.8. Equipment is ready and safe to operate.
2. Operate and monitor the packaging system	2.1. The system is started up and operated according to company ***policies and procedures***. 2.2. System equipment components are monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements. 2.4. The system is monitored to confirm that packaging specifications are met. 2.5. Out-of-specification product/packaging outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines.

3. Hand over packaging system operation	3.1. Workplace records are maintained according to workplace recording requirements. 3.2. ***Handover*** is carried out according to workplace procedures. 3.3. Process operators are made aware of system and related equipment status at completion of handover.
4. Shut down the packaging system	4.1. The appropriate ***shutdown procedure*** is identified. 4.2. The system is shut down according to workplace procedures. 4.3. Maintenance requirements are identified and reported.
5. Contribute to continuous improvement of the system	5.1. System performance is reviewed against output plan/targets. 5.2. Opportunities are identified and investigated for system improvement. 5.3. Proposals are developed and implemented for improvement within company planning arrangements, authority levels and according to company procedures.

Variable	**Range**
Policies and procedures	May include but not limited to: • Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Handovers	May include but not limited to: • in person or via recording/communication systems according to workplace arrangements
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Legislative requirements	May include but not limited to: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • performance records and reports
System operation	May include but not limited to: • coordination of operators of system components
Operation and monitoring of equipment and system processes	May include but not limited to: • the use of control panels and systems

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • conduct pre-start checks on packaging system components • confirm machine set up is ready to achieve packing requirements • correctly use required personal protective equipment • start, operate, monitor and adjust process equipment throughout the system to achieve required quality outcomes • identify system problems and take corrective action • conduct operational handovers • shut down system • identify and investigate opportunities for operational improvements within areas of responsibility • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and basic principles of the packaging system, including the process flow and the interrelationships of each previous processes that can affect packaging outcomes, packaging technology, and packaging equipment components • basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments • operating capacities of equipment used in the system, such as different types of equipment and/or components as required by processing/packaging operations • related systems and responsibilities for interaction, such as related production and further packaging/storage stages, services supply, maintenance, laboratory/quality assurance and planning and scheduling • technical knowledge of product/packaging characteristics and the main factors that impact on shelf-life • typical packaging related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials and finished product, incorrect settings and poor operator control • relevant procedures, specifications and operating parameters for the system and the individual processes • isolation, lock out and tag out procedures and responsibilities

	• hazards, risks, controls and methods for monitoring processes within the system, including Occupational Health and Safety (OHS), food safety, quality and environmental hazards and risks • workplace system and approach to equipment maintenance • process improvement procedures and related consultative arrangements • troubleshooting procedures and problem solving techniques • communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues • procedures and responsibility for reporting production and performance information
Underpinning Skills	Demonstrate skills to: • access production/packaging schedule and related information to identify packaging output and operating requirements, such as establishing daily packaging priorities and/or modifying plans to respond to customer requirements • liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements • confirm supply of necessary equipment and related attachments, materials and services • select, fit and use personal protective clothing and/or equipment • set and/or adjust equipment to meet packaging requirements, such as inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lock outs are cancelled as required, confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational (checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks) • load and/or position product, packaging components and consumables as required • operate and monitor the packaging system, such as use of a process control system and/or observing/supporting others to follow correct operating procedures • monitor materials flow and work-in-progress to and from the packaging system • confirm that the packaging system operates within specified parameters and inspection/control points are monitored • determine responses to out-of-specification packaging or non-conformance within level of responsibility

	• monitor operating efficiencies of the system, including recognition of signs and symptoms of faulty equipment and early warning signs of other potential problems • investigate, resolve and/or report problems and faults • plan scheduled events to minimize disruption to production • conduct/coordinate product/packaging changeovers • conduct/coordinate shift handovers • review and maintain procedures to support system improvements • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Monitor the Implementation of Quality and Food Safety Programs**
Unit Code	**IND SHP3 04 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to provide a leadership role in supporting day-to-day implementation of the food safety/quality programs in a work area. It also involves supporting others to implement the requirements of the food safety/quality procedures.

Elements	Performance Criteria
1. Ensure others in the work area are able to meet quality and food safety requirements	1.1. Hazard control and clothing and equipment appropriate to work requirements are made available, functional and correctly fitted. 1.2. Information on ***food safety/quality responsibilities*** and procedures is made current, accessible and communicated to others in the work area. 1.3. Information about identified hazards and the outcomes of risk assessment and risk control procedures is made accessible and communicated to others in the work area. 1.4. Food safety hazards and quality control measures are used in the work area can be identified by those in the work area. 1.5. Mentoring and coaching support is made available to support individuals/groups to implement quality and safe food handling procedures. 1.6. Training needs are identified and addressed within level of responsibility.
2. Monitor observance of quality standards and food safety programs in the work area	2.1. Work procedures in the work area are clearly defined, documented and followed. 2.2. Deviation from identified procedures is identified, reported and addressed within level of responsibility. 2.3. Personal behavior is made consistent with workplace policies and procedures that support food safety and quality. 2.4. Food safety hazards and/or quality are identified and reported according to workplace procedures. 2.5. Food safety and quality ***information*** is recorded to meet workplace reporting requirements. 2.6. The work area is maintained according to housekeeping standards. 2.7. Work is conducted in accordance with workplace environmental guidelines.

3. Take corrective action in response to quality and food safety non-compliance	3.1. Workplace procedures are promptly implemented for responding to ***quality*** and food safety non-compliance. 3.2. Hazardous events are investigated to identify cause. 3.3. Control measures are implemented to prevent recurrence and minimize risks of hazardous events.
4. Maintain and improve quality and food safety in the work area	4.1. Processes or conditions which could result in a breach of food safety procedures or quality specifications are identified, assessed, removed or and/reported within level of responsibility and according to workplace procedure. 4.2. Risk assessments are conducted and appropriate control measures are identified and implemented in the work area. 4.3. Recommendations arising from risk assessments are implemented within level of responsibility. 4.4. Inadequacies in control measures are identified and reported according to company reporting requirements. 4.5. Matters raised relating to quality/food safety are promptly resolved and/or referred to appropriate personnel. 4.6. The work group is consulted and advised of quality/food safety matters relevant to work role. 4.7. Opportunities are identified and raised for improving food safety and quality with relevant personnel. 4.8. Procedures are developed or revised to support effective control of quality and food safety hazards. 4.9. Quality/food safety ***records*** are reviewed to ensure they are complete and meet the quality system, food safety program and legal requirements.

Variable	**Range**
Food safety	is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Work responsibilities	May include but not limited to: • Work responsibilities may include formal or informal responsibility for modeling appropriate quality/food safety policies and procedures and providing a support role to others in the work area

Information	May include but not limited to: • food safety and quality policies and programs • Standard Operating Procedures (SOPs) • specifications • log sheets • written or verbal instruction incorporating food safety and quality requirements
Quality	May include but not limited to: • may be externally accredited, such as an ISO system, or internally designed and managed
Record keeping	complies with customer, legal and food safety program requirements
Monitoring	May include but not limited to: • taking temperatures • collecting samples • conducting visual inspections • additional testing as required
Personal hygiene requirements	Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the state or territory legislation/regulations
Reporting of health conditions and illnesses	requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in state or territory legislation/regulations
Operator responsibilities	May include but not limited to: • The operator at this level may not have direct responsibility for overseeing the training/development of team members. At a minimum they must be able to identify development needs of others in the work area and refer this information to the relevant personnel. • The operator at this level may not have responsibility for independently assessing risks and determining the effectiveness of control measures. However, they would be expected to observe day-to-day effectiveness and participate in assessment and review processes. Responsibilities at this level may include facilitating consultation processes within level of responsibility

Evidence Guide	
Critical Aspects of Competence	A candidate must demonstrate the ability to: • describe quality and food safety program, risks and control measures of the work area • confirm that control measures are in place and that personnel in the work area are equipped and informed to implement programs

	• identify, address and follow up on non-compliances • identify causes of non-compliances • conduct risk assessments and recommend responsive action • provide support to others to implement the programs • complete and maintain documentation
Underpinning Knowledge	Demonstrate knowledge of: • sources of information and expertise on procedures and responsibilities for food safety relevant to the workplace • principles of a HACCP-based approach to managing food safety, including identifying hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met • basic concepts of quality assurance including hazards, risk assessment and control methods • company programs and systems in place to manage and support quality and food safety in the workplace, which may involve separate or integrated programs, including systems for maintaining and updating documents, such as operating procedures and specifications • clothing and footwear requirements for working in and/or moving between food handling areas, including personal clothing maintenance, laundering and storage requirements • appropriate bandages and dressings to be used when undertaking food handling • housekeeping requirements and responsibilities relating to own work, where relevant this includes use and storage of housekeeping/cleaning equipment • procedures to follow in the event of pest sighting or discovery of infestation • purpose and importance of cleaning and sanitation procedures • legal obligations for food safety and quality, including an awareness of government legislation and customer requirements • food safety and quality responsibilities and requirements relating to the work area • awareness of common micro biological, physical and chemical hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences and control methods to prevent occurrence • suitable standard for materials, measuring devices, equipment and utensils used in the work area

	• properties of food and ingredients used that affect food safety, including an understanding of related storage, processing and handling requirements • current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents within level of responsibility, including an understanding of common micro biological, physical and chemical hazards, related control methods and the way changes in equipment and/or processing methods can affect food safety and quality outcomes • procedures for identifying unsafe and/or non-conforming product, including control points and evidence of out-of-specification product or materials • sampling procedures, test methods and inspections • options for responding to non-compliance, including legal responsibility, risk management and cost/implications of different responses and level of responsibility for decision making • methods used in the workplace to isolate or quarantine food which may be unsafe • waste collection, recycling, handling and disposal, including handling/disposal requirements for different types of waste, such as hazardous waste where relevant • traceability and recall procedures within level of responsibility • documentation system and procedures, including record keeping to meet both company and legal requirements, procedures for developing and/or reviewing workplace procedures, and document control systems used in the workplace • auditing arrangements, roles and responsibilities as they relate to own work responsibilities, such as internal and external audit processes • appropriate communication skills and techniques to convey information on quality and food safety requirements to others in the workplace • cleaning and sanitation procedures where relevant • impact of rework handling/addition on food safety where relevant • sampling and test methods where relevant • facilitation and consultation techniques where relevant
Underpinning Skills	Demonstrate skills to: • access, interpret and communicate information about the food safety program, quality requirements and related procedures to others in the work area

	• demonstrate two-way communication, including active listening and responding constructively to feedback • provide access to and maintain current food safety/quality documentation • model safe food handling and quality practices and procedures to achieve required outcomes, including demonstrating: ➢ work procedures that meet the requirements of quality and food safety ➢ cleaning and sanitizing equipment ➢ sampling and testing as appropriate according to quality and food safety requirements ➢ maintaining personal hygiene ➢ wearing appropriate clothing and footwear as required by the work task ➢ following procedures when moving within and between work areas ➢ reporting health conditions and illnesses according to workplace procedures ➢ handling, cleaning and storing equipment, utensils and packaging materials as appropriate • identify control points in the work area and demonstrate monitoring techniques used (control points include critical, quality and regulatory control points) • support others to meet quality standards and follow food safety procedures by ensuring that all personnel in the work area receive the information required and have the necessary skills and equipment to carry out their responsibilities • identify, report and/or address food safety/quality non-compliance in an appropriate and timely manner within level of responsibility • determine when and how to make adjustments to maintain output within level of responsibility • identify, report and/or address food safety/quality training and development needs of others in the work area • ensure that appropriate and timely action is taken in response to non-compliance • handle and dispose of out-of-specification or contaminated food, waste and recyclable material according to food safety program as this requirement relates to own work responsibility • participate in investigations of non-compliance and risk assessment processes • participate in consultation processes to improve quality and food safety outcomes in the workplace

	• review practice and procedures to implement recommendations arising from risk assessments and/or improvement proposals within level of responsibility, such as collecting and analyzing food safety/quality records, reviewing operating procedures and communicating changes to others in the work area • ensure that housekeeping standards are maintained and that equipment is in operational order, such as participating in the management of equipment calibration • monitor the recording of quality and food safety information to confirm that records accurately reflect performance and meet the requirements of the food safety and quality programs • participate in food recall procedures as required, within level of responsibility • facilitate consultation processes according to enterprise procedures • lead investigations of quality and food safety incidents according to enterprise procedures • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Monitor Storage Facilities**
Unit Code	**IND SHP3 05 0613**
Unit Descriptor	This unit involves the skills and knowledge required to monitor storage facilities in accordance with workplace requirements including determining site functions and operations; monitoring storage operations in accordance with workplace procedures; and taking appropriate action in response to identified discrepancies, changes to storage requirements, or breaches in operational procedures.

Elements	Performance Criteria
1 Determine site functions and operations	1.1 Layout of storage facilities, ***work*** flow and activities undertaken in each zone is identified 1.2 ***Type of storage*** facilities, their purpose and (any) associated risk factors are identified. 1.3 Inventory lists are accessed through record management system. 1.4 Storage separations and co-storage applications are identified.
2 Monitor storage operations	2.1 Inventory data is confirmed to match goods/freight and applicable storage requirements. 2.2 Storage areas are supervised to ensure movement of personnel and goods/freight is in accordance with workplace procedures. 2.3 Storage facilities are checked to ensure appropriate operational capacity. 2.4 Integrity of ***goods***/materials are monitored to ensure appropriate quality is maintained. 2.5 Discrepancies/changes are noted to storage ***requirements for work*** and/or inventory lists and action ***modes of transfer*** undertaken in accordance with workplace procedures. 2.6 Appropriate action(s) are initiated in response to breaches of operational procedures or to an emergency/incident. 2.7 Operational actions and investigative outcomes are documented in accordance with ***workplace*** procedures.

Variable	Range
Work	May include but not limited to: • restricted spaces

	• exposed conditions • controlled or open environments • environments involving the movement of equipment, goods, materials and/or vehicular traffic • by day or night
Storage types	May include but not limited to: • bin/binning systems • rack refrigeration/freezers/cold rooms • marked floor space • containers • racks and racking systems • block/stacks • pallets
Goods	May include but not limited to: • special handling, location, storage and/or packaging requirements, including temperature controlled goods and dangerous goods
Requirements for work	May include but not limited to: • restricted spaces • site restrictions and procedures • use of safety and personal protective equipment • communications equipment • specialized lifting and/or handling equipment • incident/accident breakdown procedures • additional gear and equipment • noise restrictions • hours of operations • authorities and permits
Modes of transfer	May include but not limited to: • manual or motorized
Workplaces	May include but not limited to: • large, medium or small worksites
Customers	May include but not limited to: • internal or external
Inventory systems	May include but not limited to: • automated • manual • paper-based • computerized • microfiche
Categories or groups of products/stock	May include but not limited to: • small parts • perishable goods • overseas export

	• dangerous goods • refrigerated products • temperature controlled stock • fragile goods
The characteristics of products/stock	May include but not limited to: • small parts • toxicity • flammability • form • weight • size • state • perish ability • fragility • security risk
Labeling systems	May include but not limited to: • batch code • bar code • identification numbering systems • serial numbers • symbols for safe handling
Hazards in the work	May include but not limited to: • hazardous or dangerous materials • contamination of, or from, materials being handled • noise, light, energy sources • stationary and moving machinery, parts or components • service lines • skills, leakages, ruptures • dust/vapors • oil or water on floor • a fire or explosion • damaged packaging or pallets • debris on floor • faulty racking • poorly stacked pallets • faulty equipment
Communication in the work area	May include but not limited to: • phone • Electronic Data Interchange (EDI) • fax • email • internet • RF systems • oral, aural or signed communications

Workplace procedures	May include but not limited to: • company procedures • enterprise procedures • organizational procedures • established procedures
Personal protective equipment may include:	May include but not limited to: • gloves • safety headwear and footwear • safety glasses • two-way radios • high visibility clothing
Consultative processes	• other employees and supervisors • suppliers, customers and clients • relevant authorities and institutions • management and union representatives • industrial relations and OHS specialists • other maintenance, professional or technical staff
Information/documents	May include but not limited to: • goods identification numbers and codes • manifests, picking slips, merchandise transfers, stock requisitions and bar codes • codes of practice and regulations relevant to workplace operations • Ethiopian and international regulations and codes of practice for the handling, stacking and transport of dangerous goods and hazardous substances • operations manuals, job specifications and induction documentation • manufacturers specifications for equipment • workplace procedures and policies • supplier and/or client instructions • dangerous goods declarations and material safety data sheets (where applicable) • award, enterprise bargaining agreement, other industrial arrangements • relevant Ethiopian standards and certification requirements • quality assurance and emergency procedures
Applicable regulations and legislation	May include but not limited to: • codes and regulations relevant to the monitoring of storage facilities • Ethiopian and international regulations and codes of practice for the storage of dangerous goods and hazardous substances, including: ➢ Ethiopian Dangerous Goods Code

	➢ Ethiopian Explosives Code ➢ license, patent or copyright arrangements • water and road use and license arrangements • export/import/quarantine/bond requirements • marine orders • relevant state/territory OHS and environmental protection legislation • workplace relations regulations • workers compensation regulations

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: • the underpinning knowledge and skills • relevant legislation and workplace procedures • other relevant aspects of the range statement
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Ethiopian codes and regulations, permit and license requirements relevant to the workplace activities • Relevant OHS and environmental protection procedures and guidelines • Workplace procedures and policies relevant to the monitoring of storage facilities • Focus of operation of work systems, equipment, management and site operating systems • Information on various categories or groups of products including their key characteristics and hazards and the special handling, stacking and storage requirements for each • Types of storage areas and related equipment appropriate for different types of goods including perishable, fragile, dangerous, composition/state goods • Equipment applications, capacities, configurations, safety hazards and control mechanisms • Requirements for workplace documentation reports and records • Problems that may occur when monitoring storage facilities and appropriate action that can be taken • Site layout • Housekeeping standards and procedures required in the workplace

Underpinning Skills	Demonstrate skills to: • Communicate effectively with others when monitoring storage facilities • Read and interpret instructions, procedures, information and signs relevant to the monitoring of storage facilities • Complete documentation related to the monitoring of storage facilities • Work collaboratively with others when monitoring storage facilities • Adapt appropriately to cultural differences in the workplace, including modes of behavior and interactions with others • Promptly report and/or rectify any identified problems, faults or malfunctions when monitoring storage facilities in accordance with regulatory requirements and workplace procedures • Implement contingency plans for unplanned events related to the monitoring of storage facilities • Apply precautions and required action to minimize, control or eliminate hazards that may exist during work activities • Modify activities depending on differing operational contingencies, risk situations and environments • Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment • Operate and adapt to differences in equipment in accordance with standard operating procedures • Use information on products and stock to determine, plan and organize processes used for the monitoring of storage facilities • Select and use relevant communications, computing and office equipment when monitoring storage facilities • Monitor performance of equipment • Select and use required personal protective equipment conforming to industry and OHS standards
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Apply Competitive Manufacturing Practices**
Unit Code	**IND SHP3 06 0613**
Unit Descriptor	This unit covers the skills needed to implement basic improvement practices within a competitive manufacturing organization. The unit focuses on bringing together the basic concepts and the holistic application of these basic concepts and processes to manufacturing. It would typically be carried out working as part of a team.

Elements	Performance Criteria
1. Focus on the basic competitive manufacturing concepts	1.1. ***Customers*** and their needs/requirements are identified. 1.2. Suppliers are identified. 1.3. Value contributions are identified along the chain. 1.4. Methods of increasing own contribution are identified and recommended to the value chain.
2. Improve the product/process value	2. 1. Customer features/benefits are identified in the product. 2. 2. Items which contribute to those features/benefits are identified. 2. 3. Things which do not contribute to customer benefits/features are identified. 2. 4. Methods of increasing features/benefits are recommended.
3. Use competitive manufacturing tools	3.1. Appropriate tools are selected for the job/process. 3.2. The ***tool*** is applied to the job/process. 3.3. The job/process is monitored and adjustments made to improve it in accordance with ***procedures***. 3.4. Own skill requirements are identified and skill development sought if required.

Variable	Range
Customer	May include but not limited to: • Customer may be interpreted to be an internal customer, but typically the benefits to the final customer should be used as the basis for the identification of waste. The operator does not need to interface directly with the external customer, but should be provided with sufficient information to enable them to identify customer benefits and features. • Supplier may be interpreted to be an internal supplier, but typically the external supplier and their abilities should be known. The operator does not need to interface directly with the external supplier, but should be provided with sufficient information to enable them to identify supplier abilities.

Tools	are used in this unit to mean the tools of competitive manufacturing such as 5S, 6 s , continuous improvement, cause effect diagrams
Procedures	May include but not limited to: • Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form. • For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.
Competitive manufacturing	May include but not limited to: • lean manufacturing • agile manufacturing • preventative and predictive maintenance approaches • monitoring and data gathering systems such as Systems Control and Data Acquisition (SCADA)software, Enterprise Resource Planning (ERP)systems, Manufacturing Resource Planning (MRP), and proprietary systems such as SAP • statistical process control systems including six sigma and three sigma • Just In Time (JIT), and other pull related manufacturing control systems • supply, value, and demand chain monitoring and analysis • other continuous improvement systems. • Competitive manufacturing should be interpreted so as to take into account the stage of implementation of competitive manufacturing approaches, the size of the enterprise, the work organization, culture, regulatory environment and manufacturing sector.

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • There should be evidence of the individual's contribution to the value chain and willing application of competitive manufacturing to their job.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • the customers and the benefits they derive from the products • the suppliers and their capabilities • product waste • relevant tools for their job and how to apply them • factors impacting on the product, process and waste, particularly those wholly or partially under their control (and how to control them)

Underpinning Skills	Demonstrate skills to: • analysis • communication • planning • teamwork • problem solving
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Perform Basic Tests**
Unit Code	**IND SHP3 07 0613**
Unit Descriptor	This unit of competency covers the ability to perform tests and measurements using standard methods with access to readily available advice from supervisors.

Elements	Performance Criteria
1. Interpret test requirements	1.1. Test request is reviewed to identify samples to be tested, test method and equipment involved. 1.2. Hazards and ***enterprise controls*** associated with the sample, ***preparation methods***, reagents and/or equipment are identified.
2. Prepare sample	2.1. Sample description is recorded and compared with specification, discrepancies are recorded and reported. 2.2. Prepare sample in accordance with appropriate standard methods.
3. Check equipment before use	3.1. Test equipment is set up in accordance with test method. 3.2. Pre-use and safety checks are performed in accordance with enterprise procedures and manufacturer's instructions. 3.3. Faulty or unsafe equipment is identified and reported to appropriate personnel. 3.4. Calibration status is checked of equipment and any out of calibration items reported to appropriate personnel.
4. Perform tests on samples	4.1. Sample and standards to be tested are identified, prepared and weighed or measured. 4.2. ***Tests*** are conducted in accordance with enterprise procedures. 4.3. Data is recorded in accordance with enterprise procedures. 4.4. Calculations on data are performed as required. 4.5. Out of specification or atypical results are identified and reported promptly to appropriate personnel. 4.6. Equipment is shut down in accordance with operating procedures.
5. Maintain a safe work environment	5.1. Established safe work practices and personal protective equipment are used to ensure personal safety and that of other laboratory personnel. 5.2. The generation of wastes and environmental impacts is ***minimized***. 5.3. Safe disposal of laboratory and ***hazardous*** wastes is ensured.

	5.4. ***Equipment*** and reagents are cleaned, cared for and stored as required.

Variable	Range
Enterprise controls to address hazards	May include but not limited to: • use of MSDS • use of signage, barriers and service isolation tags • use of personal protective equipment, such as hard hats, hearing protection, sunscreen lotion, gloves, safety glasses, goggles, face guards, coveralls, gowns, body suits, respirators and safety boots • use of appropriate equipment, such as biohazard containers and cabinets and laminar flow cabinets • recognizing and observing hazard warnings and safety signs • labeling of samples, reagents, liquated samples and hazardous materials • handling and storage of all hazardous materials and equipment in accordance with labeling, MSDS and manufacturer's instructions, and enterprise procedures and regulations • cleaning and decontaminating equipment and work areas regularly using recommended procedures • following established manual handling procedures for tasks involving manual handling
Preparation of samples	May include but not limited to: • sub-sampling or splitting using procedures, such as riffling, coning and quartering, manual and mechanical splitters • diluting samples • physical treatments, such as aching, dissolving, filtration, sieving, centrifugation and comminution • moldings, casting or cutting specimens
Typical tests carried out by laboratory**/**field assistants	May include but not limited to: • visual/optical tests of appearance, color, texture, identity, turbidity, refractive index (alcohol content and Baume/Brix) • physical tests: ➢ density, specific gravity and compacted density ➢ moisture content and water activity ➢ particle size, particle shape and size distribution • chemical tests: ➢ gravimetric ➢ colorimetric ➢ Electrical Conductivity (EC) and pH ➢ specific ions using dipsticks and kits ➢ nutrients (e.g. nitrates and orthophosphates) using basic kits ➢ ashes, including sulphated ashes • biological/environmental tests:

	➢ pH, Oxygen Reduction Potential (ORP), dissolved oxygen (DO) and (EC) ➢ E coli using test kits ➢ surface hygiene/presence of microbes • packaging tests: ➢ tearing resistance, bursting strength and impact resistance ➢ permeability and/or leakage • mechanical tests: ➢ Emerson class ➢ concrete slump
Minimizing environmental impacts	Minimizing environmental impacts may involve: • recycling of non-hazardous waste, such as chemicals, batteries, plastic, metals and glass • appropriate disposal of hazardous waste • correct disposal of excess sample/test material • correct storage and handling of hazardous chemicals
Hazards	May include but not limited to: • electric shock • biohazards, such as microbiological organisms and agents associated with soil, air, water, blood and blood products, and human or animal tissue and fluids • solar radiation, dust and noise • chemicals, such as Sulfuric acid, Fluorides and Hydrocarbons • aerosols • sharps, broken glassware and hand tools • flammable liquids • dry ice and liquid nitrogen • fluids under pressure • sources of ignition • occupational overuse syndrome, slips, trips and falls • manual handling, working at heights and working in confined spaces • crushing, entanglement and cuts associated with moving machinery or falling objects
Common measuring equipment may include:	• dimension apparatus • DO and EC • analogue and digital meters and charts/recorders • basic chemical and biological test kits • dipsticks and site test kits (e.g. HACK) • timing devices • temperature measuring devices, such as thermometers and thermocouples
Codes of practice	Where reference is made to industry codes of practice, and/or Ethiopian/international standards, it is expected the latest version will be used

Standards**,** codes**,** procedures and**/**or enterprise requirements	May include but not limited to: • Ethiopian and international standards, • calibration and maintenance schedules • enterprise recording and reporting procedures • equipment manuals • equipment startup, operation and shutdown procedures • MSDS and safety procedures • material, production and product specifications • national measurement regulations and guidelines • principles of Good Laboratory Practice (GLP) • production and laboratory schedules • quality manuals • Standard Operating Procedures (SOPs)
Concepts of metrology	May include but not limited to: • that all measurements are estimates • measurements belong to a population of measurements of the measured parameters • repeatability • precision • accuracy • significant figures • sources of error • uncertainty and traceability
Measurements	May include but not limited to: • simple ground surveys • meteorological parameters, such as wind direction/strength, rainfall, maximum/minimum temperature, humidity and solar radiation • simple background radiation survey • production/process parameters, such as temperature, flow and pressure • gas levels in a confined space
Occupational Health and Safety (OHS) and environmental management requirements	• all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • accurately interpret enterprise procedures or standard methods • complete all tests within the required timeline without sacrificing safety, accuracy or quality

	• demonstrate close attention to the accuracy and precision of measurements and the data obtained • Maintain the security, integrity and traceability of all samples, data/results and documentation.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • concepts of metrology • the international system of units (SI) • purpose of test • principles of the standard method • pre-use equipment checks • relevant standards/specifications and their interpretation • sources of uncertainty in measurement and methods for control • enterprise and/or legal traceability requirements • interpretation and recording of test result, including simple calculations • procedures for recognition/reporting of unexpected or unusual results • relevant health, safety and environment requirements
Underpinning Skills	Demonstrate skills to: • interpreting enterprise procedure or standard methods accurately • using safety information, such as Material Safety Data Sheets (MSDS) and performing procedures safely • checking test equipment before use • completing all tests within required timeline without sacrificing safety, accuracy or quality • calculating, recording and presenting results accurately and legibly • maintaining security, integrity and traceability of all samples, data/results and documentation • cleaning and maintaining equipment
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Apply Raw Materials, Ingredient and Process Knowledge to Production Problems**
Unit Code	**IND SHP3 08 0613**
Unit Descriptor	This unit of competency covers skills and knowledge required to apply knowledge of ingredients and processes to troubleshoot typical problems that occur in preparing, processing and/or packaging product. This unit applies where problem solving occurs over one or more processes and requires an understanding of the characteristics of raw materials and ingredients and processing methods used. It typically applies to the production operator where responsibility for solving problems relating to non-conforming raw materials, ingredients and processes.

Elements	Performance Criteria
1. Identify and respond to non-conforming ingredients/raw materials of spices and herbs	1.1. Non-conformance in ***raw materials/ingredients*** spices and herbs is identified and reported according to workplace reporting requirements. 1.2. Causes of non-conformance are investigated and reported according to workplace reporting requirements. 1.3. Corrective action is determined and implemented within level of responsibility and workplace procedures. 1.4. Action is taken to prevent recurrence of non-conformance. 1.5. Action is reported according to workplace reporting requirements.
2. Identify and respond to non-conforming spices and herbs product and processes	2.1. ***Processing parameters***, stages and changes which occur during processing are monitored. 2.2. Non-conformance in ***processing***, handling and/or storage is identified and corrective action taken according to workplace requirements. 2.3. Causes of non-conformance relating to processing, handling and/or storage are investigated and reported according to workplace reporting requirements. 2.4. Corrective action is determined and implemented within level of responsibility and workplace procedures. 2.5. Action is taken to prevent recurrence of non-conformance. 2.6. Action is reported according to workplace reporting requirements.

	2.7. Work is conducted in accordance with workplace environmental guidelines.

Variable	Range
Ingredients**/**raw materials	May include but not limited to: • Ingredients/raw materials are those used to manufacture product
Typical process parameters	May include but not limited to: • temperature • time • granular size or particle size • concentration • extraction rate • pressure • flow rate
Typical processing and related techniques	May include but not limited to: • raw materials/ingredient dispensing • preparation • drying • deseeding • milling • mixing and blending • primary and further processing • wrapping • packing and storage
Policies and procedures	May include but not limited to: • Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements.
Legislative requirements	May include but not limited to: • Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, Occupational Health and Safety (OHS), anti-discrimination and equal opportunity
Typical reactions	May include but not limited to: • Typical reactions depend on processing method. Examples include but are not limited to: • gelatinization and hydration
Problem minimization	Where recurrence of a problem cannot be prevented, procedures should be established to minimize the likelihood of recurrence and to identify any further incidents

Evidence Guide	
Critical Aspects of Competence	Must demonstrate ability to: • describe required quality characteristics for raw materials and ingredients • describe required processes to achieve production specifications • identify common non-conforming materials and ingredients and causes • identify common non-conforming processes and causes • determine and undertake corrective action for non-conformances • complete workplace documentation and report non-conformances • Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • basic composition and function of each main raw material/ingredient used, such as awareness of ingredient grades or types • common causes of contamination/unacceptable quality of raw materials/ ingredients • methods used to confirm quality standard, such as accessing information (e.g. certificates of analysis and/or laboratory clearance information) • the effect of variation in raw materials/ingredients on processing stages and final product outcome, including factors likely to cause variation, and scope to adjust or correct for variation at each processing stage • appropriate handling and storage requirements for raw materials/ingredients and final product, and the effect of failing to meet required storage conditions • the changes and reactions that occur through processing stages, including the signs and symptoms of poor/unacceptable processing or equipment operation • factors that affect the shelf-life of product • the inter-relationships between processing stages and the effect of variation in processing parameters on process outcome and on final product, including factors likely to cause variation, and scope to adjust or correct for variation at subsequent process stages • procedures for identifying and isolating non-conforming product • troubleshooting information and techniques • procedures and related documentation required to amend or introduce a new method or procedure, such as short term procedures for amending or updating specifications and processing parameters

	• reporting requirements and responsibilities • test methods to confirm raw material/ingredient and/or final product quality characteristics where relevant
Underpinning Skills	Must demonstrates ability to: • identify requirements of ingredient/raw material characteristics within level of responsibility • follow procedures to identify, remove/isolate and report non-conforming ingredients/materials and/or product according to workplace reporting requirements • determine likely causes of non-conformance of ingredients/raw materials • recognize indicators of unacceptable or non-conforming processing, handling and/or storage outcomes • act promptly to identify, remove/isolate and report non-conforming product and/or processes • access and apply workplace information relating to process troubleshooting • investigate non-conformance to determine likely causes and report findings to appropriate personnel • identify action required to correct non-conformance and implement within level of responsibility • identify action required to prevent or minimize and control recurrence of non-conformance and implement within level of responsibility • complete workplace records, including reporting non-conformance and documenting corrective actions according to workplace recording procedures • conduct tests to confirm raw material/ingredient and/or final product quality characteristics according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Identify Cultural, Religious and Dietary Considerations for Food Production**
Unit Code	**IND SHP 09 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to identify cultural, religious and dietary considerations when preparing food products or determining the suitability of food products to meet specific customer needs.

Elements	Performance Criteria
1. Identify cultural and religious requirements of customers	1.1. ***Cultural and religious*** practices and events that influence food production requirements are identified. 1.2. Food production methods and food products that cater for cultural and religious practices and events are identified. 1.3. The suitability of current food production methods and current food products against cultural and religious requirements are assessed. 1.4. If required, alternative processes and products are identified.
2. Identify dietary requirements of customers	2.1. A range of ***specific dietary*** requirements and their impact on food production are identified. 2.2. Food products that cater for dietary requirements are identified. 2.3. The suitability of current food production methods and current food products are assessed against dietary ***requirements***. 2.4. If required alternative processes and products are identified.
3. Identify common food-related allergies	3.1. Common food-related ***allergies*** are identified. 3.2. Risk assessment is made of current products and processes against common food-related allergies. 3.3. ***Procedures*** are identified to avoid contamination with allergens.
4. Record information	4.1. ***Workplace information*** is reported and recorded in the appropriate format.

Variable	Range
Specific cultural and religious needs	May include but not limited to: • foods prepared to cultural and religious dietary • national and regional food products • foods that mark significant events (e.g. Christmas, Ramadan, Easter, Rosh Hashanah, Passover, and weddings) • feasting • fasting • alcohol-free beverages

	• pork-free foods • beef-free foods • vegetarian
Specific dietary needs	May include but not limited to: • low flavor • low pungency • low color • low spices powder • sugar free and/or fat free • dairy free • gluten free • flourless • yeast free • low fat • low salt • vegetarian • vegan • low GI • sugar free and/or fat free • flourless • yeast free • low salt • vegetarian
Requirements	May include but not limited to: • the Food Standards, Code including labeling, weights and measures legislation • legislation covering food safety, environmental management, Occupational Health and Safety (OHS), anti-discrimination and equal opportunity
Common allergies	May include but not limited to: • spices and herbs products • anti-nutritional effects • peanuts • wheat
Procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	May include but not limited to: • verbal or written operating procedures • specifications • production schedules • recipe instructions

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • identify the food products commonly associated cultural, religious and dietary requirements • identify food processes commonly associated cultural religious and dietary requirements • Identify common food allergens and contamination risks in the production process.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • ingredients of available products • food production processes
Underpinning Skills	Demonstrate skills to: • use communication skills to interpret customer requests and suggest appropriate products that meet customer requirements • access information on cultural, religious and dietary needs • apply product knowledge to determine appropriate food products and processes to comply with cultural, religious or dietary considerations
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Operate Spice Fractionation Process**
Unit Code	**IND SHP3 10 0613**
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down the fractionation process to separate oleoresin and spice oils into two or more liquid and solid parts, each with distinct physical and chemical properties. This unit has application in an oleoresin and spice oils production environment. It typically targets the production worker responsible for applying basic operating principles to the operation and monitoring of a fractionation process. Processes may be batch or continuous, and apply to single or multiple product types.

Elements	Performance Criteria
1. Prepare the fractionation equipment and process for operation	1.1 ***Materials*** and ***service***s are confirmed and available to meet operating requirements. 1.2 Cleaning and maintenance requirements and status are identified and confirmed. 1.3 Machine components and related attachments are fitted and adjusted to meet operating requirements. 1.4 Production/process parameters are entered as required to meet safety and production requirements. 1.5 ***Fractionation equipmen***t performance is checked and adjusted as required. 1.6 Pre-start checks are carried out as required by ***workplace information*** requirements.
2. Operate and monitor the fractionation process	2.1. The process is started and operated according to workplace procedures. 2.2. ***Operation of equipment and processes*** is monitored to identify variation in operating conditions. 2.3. Variation in equipment operation is identified and maintenance requirements are reported according to Workplace information reporting requirements. 2.4. The ***fractionation methods*** are monitored to confirm that fractionation product meets melting point specifications. 2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification. 2.6. The work area is maintained according to housekeeping standards.

	2.7. Work is conducted in accordance with workplace environmental guidelines. 2.8. Workplace records are maintained according to Workplace information recording requirements.
3. Shut down the fractionation process	3.1. The appropriate ***shutdown*** procedure is identified. 3.2. The process is shut down according to workplace procedures. 3.3. Maintenance requirements are identified and reported according to Workplace information reporting requirements.

Variable	**Range**
Materials	May include but not limited to: • crude tallow • essential oil • oleoresin • detergent
Services	May include but not limited to: • power • steam • vacuum • water • compressed and instrumentation air
Fractionation equipment	May include but not limited to: • tanks • crystallization/seeder vessel • separators • pumps • heat exchanger
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	May include but not limited to: • the use of process control panels and systems
Fractionation methods	May include but not limited to: • dry, solvent and detergent-based processes
Shutdown procedures	May include but not limited to: • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • conduct pre-start checks on machinery used for fractionation • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures to work practices
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • purpose and basic principles of the fractionation process, including a basic understanding of the chemical structure of oil and the effect of fractionation on this structure • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the fractionation process and the effect of outputs on downstream processes • quality characteristics to be achieved by the fractionation process • quality requirements of oil for fractionation and effect of variation on fractionation process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the fractionation process, such as

	inspecting, measuring and testing as required by the process • inspection or test points (control points) in the fractionation process and the related procedures and recording requirements • contamination/food safety risks associated with the fractionation process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the fractionation process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the fractionation process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with fractionation process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	Demonstrates skills to: • access workplace information to identify fractionation process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary oil, materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, confirming availability of tank space, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for fractionation process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust fractionation process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as:

	➢ time/temperature ➢ flow rates ➢ vacuum ➢ product quality • monitor supply and flow of materials to and from the fractionation process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take fractionation process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers as required • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitize equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Assess Oleoresin and Essential Oil for Style and Quality**
Unit Code	**IND SHP3 11 0613**
Unit Descriptor	This unit covers assessing oleoresin and essential oil and essential oils for style and essential oils quality and defines the standard required to: identify oleoresin and essential oil and essential oils styles; identify common oleoresin and essential oil and essential oils defects; modify horticultural and/or processing practices to remedy variations from desired style and quality.

Elements	Performance Criteria
1. Establish and implement appropriate tasting protocols	1.1. Appropriate ***tasting equipment***, ***extraction solvents*** and conditions are established. 1.2. Accepted industry tasting ***procedures*** are applied. 1.3. Oils of oleoresin and essential oil are tested in the order that will best show character of oil. 1.4. Repairs are undertaken to ***problems*** where appropriate in accordance with procedures.
2. Determine style and sensory quality of the oleoresin and essential oil	2.1. Characteristics of the oleoresin and essential oil are identified and assessed. 2.2. Style of oil is assessed by tasting. 2.3. Sensory quality test of oleoresin is assessed by smelling and tasting. 2.4. Observed defects are analyzed and recorded for future
3. Determine the analytical quality of the oleoresin and essential oil	3.1. Samples of oils are sent to laboratory for testing variables of key chemical indices. 3.2. Analytical quality of oil is assessed by interpreting key chemical indices. 3.3. Observed chemical ***indices*** that are beyond the normal range are recorded for future action.
4. Identify factors influencing the style and quality of the oleoresin and essential oil	4.1. Raw material quality factors that may influence style and quality of the oleoresin and essential oil identified. 4.2. Processing factors that may influence style and quality of the oleoresin and essential oil identified. 4.3. Other factors that may influence style and quality of the oleoresin and essential oil are identified.
5. Implement findings of tastings and chemical analyses	5.1. Records of season's tastings and chemical analyses are maintained according to enterprise ***procedures***. 5.2. Raw material quality and processing activities and methods are evaluated in terms of modifications and improvements to be made for next season.

	5.3. ***Raw material*** quality production plan for next season is adjusted, documented and communicated to horticultural personnel according to enterprise procedures. 5.4. Processing requirements for next season are documented and communicated to processing personnel according to enterprise procedures.

Variable	**Range**
Testing equipment	May include but not limited to: • High Pressure Liquid Chromatography [HPLC] • Gas chromatography • Absorber [color identifier] • PH meter
Procedures	May include but not limited to: • Procedures mean all relevant workplace procedures, work instructions, temporary instructions, standard operating procedures, plant description manuals, manufacturer's instructions, specifications, service manuals, machine circuit diagrams for hydraulic/pneumatic and electrical/electronic circuits and relevant industry and government codes and standards
Problems	May include but not limited to: • out-of-specification product or variations • response of equipment to materials variations • new or changed materials • changed equipment settings • equipment in need of maintenance • update or modification procedures are required
Testing variables indices	May include but not limited to: • Color • Pungency • Residual solvent and concentration
Accepted industry tasting procedures	General Methodology for the Organoleptic Assessment of Oils; and methods and standards adopted by the International Oil Councils for the sensory analysis of oils.
Raw materials	May include but not limited to: • ground spices • Leaves – rosemary, peppermint • Barks – cinnamon and cassion • Rhizome – ginger • And wood, flowers etc of the plant
Assessment techniques	May include but not limited to: • Range of techniques growers use to assess oleoresin and essential oil in terms of style and quality like:

	➢ Seed Variety checks ➢ Ripping time
Extraction solvents	May include but not limited to: • Methylene bromide, • Ethylene dichloride Acetone, • Hexane or Alcohol.
Record information	May include but not limited to: • Workplace information is reported and recorded in the appropriate format

Evidence Guide	
Critical Aspects of Competence	Required skills and knowledge and include achievement of the following: • Identify the major pungency of oleoresin and essential oil. • identify common oleoresin and essential oil defects • Identified Non-pungent materials, CHO, palm spices and herbs found in oleoresin • Modify horticultural and/or processing practices to remedy variations from desired style and quality.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • cause of oleoresin and essential oil defects and how they can be remedied • raw material Quality and processing practices that affect oleoresin and essential oil style, and reasons for the effect relationship between critical chemical parameters and oil style and quality • Collection, analysis and reporting of data. • principles of the operation of the equipment to be maintained • routine and non-routine causes of equipment failures and the service conditions which may increase maintenance • methods used to the extraction of the oleoresin and essential oil process such as inspecting, measuring , testing as required by the process
Underpinning Skills	Demonstrate skills to: • general tasting skills, including ability to detect and describe aromas and flavors, and to distinguish between bitterness and pungency in oils • use literacy skills to read, interpret and follow organizational policies and procedures, develop sequenced written instructions, record accurately and legibly information collected and select and apply procedures to a range of tasks • use oral communication skills/language competence to fulfill the job role as specified by the organization including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views

	• use numeracy skills to estimate, calculate and record routine and more complex workplace measures and data • Use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Monitoring Labeling, Grading And Categorizing Of Spice Products**
Unit Code	**IND SHP3 14 0613**
Unit Descriptor	This unit involves the skills and knowledge required to apply product knowledge to the organization of work operations including identifying and categorizing products, matching products to locations based on specified criteria, and assisting individuals to solve stock identification and location problems.

Elements	Performance Criteria
1 Identify and categories products	1.1 Spices and herbs products and ***goods*** are identified and categorized in terms of specified criteria in accordance with workplace procedures.
2 Match spices and herbs products to locations based on specified criteria	2.1 Locations for spices and herbs products ***classification of spices*** are determined based on specified criteria. 2.2 Labels, inventory systems and other information sources are used to assist in the identification of products, handling and storage requirements.
3 Assist individuals to solve stock identification and location problems	3.1 New stock items are identified and particular product information is brought to the attention of relevant personnel. 3.2 Stock queries are predicted and team members are assisted to locate and assimilate information relevant to these products. 3.3 Personnel are assisted with routine and non-routine stock enquiries with actions taken to update information of products for relevant personnel. 3.4 Personnel are encouraged to maintain and build product knowledge through accessing product information and the application of problem solving and information analysis skills.
4 Identify appropriate transfer and handling requirements	4.1 Resources used to transfer different products through the storage zones are identified and evaluated. 4.2 Work in receival and dispatch areas is supported by identification and reporting of variances. 4.3 Stock re-ordering and ***storage*** are informed by knowledge of product source, frequency of pick destination (or seasonality) of products and potential for supply problems, 4.4 Relevant documentation is completed in accordance with ***workplace*** procedures.
5 Contribute to continuous improvement	5.1 Knowledge of ***customer*** requirements is used to determine work design.

	5.2 Potential problems are predicted and notified to appropriate personnel. 5.3 Opportunities are identified for improvements to own ***work*** organization.

Variable	**Range**
Goods may involve:	• special handling, location, storage and/or packaging requirements, including temperature controlled goods and dangerous goods
Classification of spices	• Pungent spice: Pepper, ginger, chilliest, mustard • Aromatic fruit: Cardamom, fenugreek, cumin, nutmeg • Aromatic bark: Cinnamon & cassia • Phallic spices: Cloves, allspice. • Bulbous spice: Onion, garlic, leek, shallot • Seed spice: Coriander, cumin, fennel, djowarin, fenugreek, linseed, Mustard and poppy. • Aromatic tree spice: Cinnamon, clove, aniseeds, nutmeg. • Leafy spices: Coriander, bay leaves, curry leaves, mint.
Storage types	may include but are not limited to: • bin/binning systems • rack refrigeration/freezers/cold rooms • marked floor space • containers • racks and racking systems • block/stacks • pallets
Workplaces may comprise:	• large, medium or small worksites
Customers may be:	• internal or external
Work	in may be conducted a range of work environments: • by day or night
Work may be conducted in:	• restricted spaces • exposed conditions • controlled or open environments
Workplace activities being organised	may include but are not limited to: • receival • storage • goods/stock movement • dispatch • stock levels • re-ordering processes
Inventory systems may be:	• automated • manual

	• paper-based • computerised • microfiche
Categories or groups of products/stock may include:	• perishable goods • overseas export • dangerous goods • refrigerated products • temperature controlled stock • fragile goods
The characteristics of products/stock may include:	• small parts • toxicity • flammability • form • weight • size • state • perish ability • fragility and security risk
Labeling systems may include but are not limited to	• batch code • bar code • identification numbering systems • serial numbers • symbols for safe handling

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: • the underpinning knowledge and skills • relevant legislation and workplace procedures
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • Regulations relevant to the organising of dispatch operations, incl and relevant bond, quarantine or other legislative requirements • Relevant OHS and environmental protection procedures and guid • Workplace procedures and policies for the organising of dispatch • Focus of operation of work systems, equipment, management and systems for the organising of dispatch operations • Problems that may occur when organising despatch operations ar that can be taken to resolve the problems • Documentation and record requirements for dispatch operations • Equipment used during the organisation of dispatch operations ar and procedures that should be followed in its use

	• Housekeeping standards procedures required in the workplace • Site layout and obstacles
Underpinning Skills	Demonstrate skills to: • Communicate effectively with others when organizing dispatch op • Read and comprehend simple statements in English • Read and interpret instructions, procedures and labels relevant to dispatch operations • Complete documentation related to the organising of dispatch ope • Identify relevant stock and goods coding and labeling, including A markings • Work collaboratively with others when organizing dispatch operati • Adapt appropriately to cultural differences in the workplace, incluc behavior and interactions with others • Promptly report and/or rectify any identified problems that may ari dispatch operations in accordance with regulatory requirements a procedures • Monitor work activities in terms of planned schedule • Modify activities depending on differing operational contingencies environments • Work systematically with required attention to detail without injury damage to goods or equipment • Operate and adapt to differences in equipment in accordance with procedures • Select and use required personal protective equipment conformin OHS standards • Select and use relevant equipment and communications technolo dispatch operations • Estimate the size, shape and special requirements of goods and l
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Use Numerical Applications in the Workplace**
Unit Code	**IND SHP3 12 0613**
Unit Descriptor	This is unit of competency covers the skills and knowledge required to apply basic mathematical functions of addition, subtraction, multiplication and division to undertake workplace calculations or to estimate approximate answers when exact calculations are not required.

Elements	Performance Criteria
1. Apply basic mathematical concepts to calculate workplace information	1.1. ***Calculation*** requirements are identified and appropriate method is selected. 1.2. Data is obtained from relevant sources and interpreted correctly. 1.3. Calculations are undertaken using addition, subtraction, multiplication and division to support work role.
2. Apply basic mathematical concepts to estimate workplace information	2.1. ***Estimation*** requirements are identified and appropriate estimation method is selected. 2.2. Data is obtained from relevant sources and interpreted correctly. 2.3. Estimations are made to meet work requirements.

Variable	Range
Calculations	May include but not limited to: • the use of whole numbers, decimals, fractions and percentages • Calculations may be made: • manually or using calculators and other measuring instruments as appropriate to the task
Estimations	May include but not limited to: • Estimations can be used where the workplace tasks require only an approximate judgment of an amount, ratio, speed, and so on. Estimations can be made from: • observations of other amounts or measurements • supplied data, such as volume or weight information on packaging of raw materials
Conversion charts	May include are those in common use in the workplace
Results	may or may not be recorded depending on workplace requirements
Numerical information	may be presented in forms, including: • simple run charts and graphs

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: • identify calculation or estimation requirements

	• carry out calculations involving basic addition, subtraction, division and multiplication • where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace • Use estimation techniques to check calculated results and workplace data.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • mathematical processes, including addition, subtraction, multiplication and division • application of calculation and estimation techniques to meet work requirements • units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) • representation of numerical information relevant to work requirements, such as charts, graphs and tables • recording requirements and responsibilities where relevant
Underpinning Skills	Demonstrate skills to: • identify whether a calculation or estimation is required to meet workplace requirements • carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) • use estimation techniques to check quantities, ratios, speed and other required data estimates • use estimation techniques to check calculated results and workplace data • record calculations and measurement information accurately according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Monitor Extraction of Spices and Herbs Process**
Unit Code	**IND SHP3 13 0613**
Unit Descriptor	This is unit that has been customized for the spices and herbs sector. It covers the preparation and operation of a production or packaging of extraction process system. A system typically describes the operation of an entire extraction process which may be comprised of a number extraction of sub-systems.

Elements	Performance Criteria
1. Prepare the system for extraction operation	1.1 Supply of materials is confirmed to meet production requirements. 1.2 Work area is prepared for extraction unit operation. 1.3 ***Services*** are confirmed as available and ready for extraction unit operation. 1.4 Equipment is checked to confirm readiness for use. 1.5 The system is set to meet specifications.
2. Monitor extraction unit system	2.1 The ***system operation*** is started up according to company procedures. 2.2 ***Control points*** are monitored to confirm performance is maintained within specification. 2.3 ***Workplace system*** is monitored to confirm extraction operating condition. 2.4 System outputs are made to meet specification. 2.5 Out-of-specification product, process and equipment performance are identified, rectified and/or reported. 2.6 The system is shut down according to company ***procedures***. 2.7 ***Equipment*** is cleaned and maintained to meet cleaning schedule and procedural requirements. 2.8 ***Waste*** generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures.
3. Solve problems and make decisions	4.1 Workplace problems are promptly identified and considered from an extraction operation and customer service perspective. 4.2 Short term action is initiated to resolve the immediate problem where appropriate. 4.3 ***Problems*** are analysed for any long term impact and potential solutions are assessed and actioned in consultation with relevant colleagues.

	4.4 Where problem is raised by a team member, they are encouraged to participate in solving the problem. 4.5 Follow up action is taken to monitor the effectiveness of solutions in the workplace.
4. Contribute to continuous improvement of the system	4.1 Quality of process extraction of oleoresin outputs is assessed against specifications 4.2 Opportunities are identified and investigated for improvement of extraction process 4.3 Proposals for improvements are developed and implemented within company planning arrangements and according to company procedures
5. Maintain workplace records	5.1 ***Workplace information*** is reported and recorded in the appropriate format 5.2 Workplace records are accurately completed and submitted within required timeframes. 5.3 Where appropriate completion of records is delegated and monitored prior to submission.

Variable	**Range**
Services	May include but not limited to: • Power • Water • Steam
System operation	May include but not limited to: • System operation typically involves planning, co-ordination and troubleshooting within their level of authority
Control points	May include but not limited to: • This includes food safety (critical), • quality and regulatory control points as well as • inspection points
Workplace systems	May include but not limited to: • quality, food safety, • occupational health and safety and environmental management
Equipment	May include but not limited to: • Solvent Percolators/ extractor • Vacuum Distillation Still • vacuum pump and other accessories • solvent Storage tanks Can sealer • Boiler • Laboratory Equipment
Waste	May include but not limited to: • Defatted spices and herbs

Problems	May include but not limited to: • difficult customer service situations • equipment breakdown/technical failure • delays and time difficulties • competence
Workplace information	May include but not limited to: • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Procedures	May include but not limited to: • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Evidence Guide	
Critical Aspects of Competence	Must demonstrate knowledge and skills competence to: • ability to develop strategies to successfully manage the overall operation of the extraction process by interpreting information and • making appropriate adjustments to the system operations as required
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • purpose and principles extraction of oleoresins of the system and essential oil • equipment purpose and operation including an understanding of process control systems where used • technical knowledge of product develop by extract of spices and herbs /packaging characteristics and processing/packaging requirements • codes and legislation relating oleoresin and essential oil extracted product and packaging requirements • equipment calibration schedule and responsibilities • Type and purpose of sampling and testing conducted related work areas and departments • relevant procedures, specifications and operating parameters relevant systems and legislative responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management • industrial awards and agreements relating to system operation • hazards, risks, controls and methods for monitoring processes within the system • maintenance and cleaning requirements of equipment in system

	• process improvement procedures and related consultative arrangements • troubleshooting procedures and problem solving techniques • recording and reporting requirements
Underpinning Skills	Demonstrate skills of: • liaise with relevant work areas to confirm or secure necessary materials, services, equipment and labor to meet production requirements • confirm that all equipment within the system meets hygiene and sanitation standards, all safety guards are in place and equipment is ready for operation • confirm that materials and packaging consumables have been cleared for use • Monitor implementation of set-up and start up procedures. This may involve monitoring the use of check sheets by others • monitor observance of work procedures and− confirm that the system operates within specified parameters and control points are monitored • determine responses to out-of-specification results or non-conformance within level of responsibility • communicate information effectively • plan maintenance and cleaning procedures to minimize disruption • monitor operating efficiencies of the system and investigate, resolve and/or report problems • review and maintain procedures to support system improvements systems • monitor materials flow and work-in-progress through the system
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Identify Equipment Faults**
Unit Code	**IND SHP3 15 0613**
Unit Descriptor	This unit requires the application of planning, technical knowledge and skills to check and isolate routine and non-routine equipment faults used in production and report on the status of equipment. It applies to all sectors of the industry. This competency is typically performed by operators demonstrating some relevant theoretical knowledge and using a range of well-developed skills requiring some discretion and judgment.

Elements	Performance Criteria
1. Identify scope of operational check.	1.1 ***Equipment*** components and operating systems are identified and classified. 1.2 Appropriate tests and procedures are matched to the equipment operating systems. 1.3 Special test procedures and parameters are identified in manufacturer's specifications and ***procedures***. 1.4 The operating principles of hydraulic, pneumatic, mechanical and electrical/electronic systems are explained as related to workplace equipment. 1.5 Measures are implemented to control identified ***hazards*** in line with procedures and duty of care. 1.6 Checks on the physical condition of equipment are observed and undertaken as per procedures. 1.7 Preliminary observations are recorded. 1.8 Test procedures are discussed with appropriate personnel and necessary permission obtained where required.
2. Plan operational checks.	2.1 Specifications and notes are checked from preliminary observations and areas to be clarified are identified. 2.2 Testing sequence/s noting areas are planned where results and observations should be recorded. 2.3 Safe area is identified for testing. 2.4 Arrangements are made for any additional resources (including other employees).
3. Check unit through full operational range.	3.1 Testing, observing relevant safety and operational requirements are undertaken. 3.2 Results and findings are confirmed.

4. Identify fault and/or formulate recommendations .	4.1 Impact of fault on work schedule is identified. 4.2 Proposals are ***recorded*** for equipment repair based on faults found, cost/time implications and workplace approval systems. 4.3 Report is explained to relevant workplace personnel including any options and recommendations. 4.4 Repairs are undertaken where appropriate in accordance with procedures.

Variable	**Range**
Tools and equipment	May include but not limited to: • hand tools specific for the task • product testing equipment (e.g. flow meter, scales, tape measure, micrometer, caliper, ultrasonic thickness) • machinery measuring equipment (e.g. vibration meter, tachometer, current tester, thermal imaging, temperature gauge) • Measuring and aligning equipment.
Procedures	mean all relevant workplace procedures, work instructions, temporary instructions, standard operating procedures, plant description manuals, manufacturer's instructions, specifications, service manuals, machine circuit diagrams for hydraulic/pneumatic and electrical/electronic circuits and relevant industry and government codes and standards
Hazards	May include but not limited to: • rotating and moving machinery • process materials, solids, fluids and gases under pressure or flowing • temporary connections or by-passes • electrical, hydraulic or pneumatic energy sources • Out-of-specification operation
Data and Records	May include but not limited to: • plant data • log sheets • operational and performance reports • physical aspects such as noise, smell, feel and pressure condition monitoring information • planned maintenance schedules • Procedures.
Problems	May include but not limited to: • out-of-specification product or variations • response of equipment to materials variations • new or changed materials • changed equipment settings (e.g. higher speed or throughput)

	• equipment in need of maintenance • Procedures requiring update or modification.
Variables	May include but not limited to: • equipment performance (e.g. speed, output, variations) • equipment component performance • sequences and timing of operations • Materials changes (desired and not desired).

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: • understand the procedures and know the importance of critical operational systems • Recognize potential situations requiring action and then implement appropriate action. • Consistent performance should be demonstrated. For example, look to see that: ➢ early warning signs of equipment in need of attention/with potential problems are recognized ➢ appropriate tests are undertaken and tests are analyzed appropriately ➢ proposals for equipment repair are based upon the most appropriate and cost effective method to return equipment to full performance in a timely manner • items initiated are followed through until final resolution has occurred
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • principles of the operation of the equipment to be maintained • functions and troubleshooting of internal components and their problems • routine and non-routine causes of equipment failures and the service conditions which may increase maintenance • maintenance techniques, (e.g. reactive maintenance, predictive and preventative operational maintenance) • appropriate testing procedures and use of equipment for a range of equipment faults • operating principles for mechanical, hydraulic, pneumatic, electrical/electronic systems • urgency and timeliness factors in planning maintenance activities in relation to production requirements • Collection, analysis and reporting of data.
Underpinning Skills	Demonstrate skills to: • conduct inspections, checks and tests on equipment as appropriate • read and interpret circuit diagrams for mechanical, hydraulic, pneumatic and electrical/electronic operating systems

	• use technical information and manufacturer information to locate relevant data • interpret technical specifications and manufacturer instructions • ensure workplace is safe for testing and maintenance of equipment • identify hazards of the materials and process • implement appropriate procedures for hazard control • use PPE, safely handle products and materials, read relevant safety information • Apply safety precautions appropriate to the task.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Monitor Implementation of Work plan/Activities**
Unit Code	**IND SHP3 15 0613**
Unit Descriptor	This unit covers competence required to oversee and monitor the quality of work operations within an enterprise. This unit may be carried out by team leaders or supervisors.

Elements	Performance Criteria
1. Monitor and improve workplace operations	1.1 Efficiency and service levels are monitored on an ongoing basis. 1.2 Operations in the workplace support overall enterprise goals and quality assurance initiatives. 1.3 Quality ***problems*** and issues are promptly identified and adjustments are made accordingly. 1.4 Procedures and systems are changed in consultation with colleagues to improve efficiency and effectiveness. 1.5 Colleagues are consulted about ways to improve efficiency and service levels.
2. Plan and organise workflow	2.1 Current workload of colleagues is accurately assessed. 2.2 Work is scheduled in a manner which enhances efficiency and customer service quality. 2.3 Work is delegated to appropriate people in accordance with principles of delegation. 2.4 Workflow is assessed against agreed objectives and timelines and colleagues are assisted in prioritisation of workload. 2.5 Input is provided to appropriate management regarding staffing needs.
3. Maintain workplace records	3.1 ***Workplace records*** are accurately completed and submitted within required timeframes. 3.2 Where appropriate completion of records is delegated and monitored prior to submission.
4. Solve problems and make decisions	4.6 Workplace problems are promptly identified and considered from an operational and customer service perspective. 4.7 Short term action in initiated to resolve the immediate problem where appropriate. 4.8 Problems are analysed for any long term impact and potential solutions are assessed and actioned in consultation with relevant colleagues. 4.9 Where problem is raised by a team member, they are encouraged to participate in solving the problem.

	4.10 Follow up action is taken to monitor the effectiveness of solutions in the workplace.

Variables	Range
Problems	May include but not limited to: • difficult customer service situations • equipment breakdown/technical failure • delays and time difficulties • competence
Workplace records	May include but is not limited to: • staff records and regular performance reports

Evidence Guide	
Critical Aspects of Competence	Assessment must confirm appropriate knowledge and skills to: • ability to effectively monitor and respond to a range of common operational and service issues in the workplace • understanding of the role of staff involved in workplace monitoring • knowledge of quality assurance, principles of workflow planning, delegation and problem solving
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: • roles and responsibilities in monitoring work operations • overview of leadership and management responsibilities • principles of work planning and principles of delegation • typical work organization methods appropriate to the sector • quality assurance principles and time management • problem solving and decision making processes • industrial and/or legislative issues which affect short term work organization as appropriate to industry sector
Underpinning Skills	Demonstrate skills to: • monitoring and improving workplace operations • planning and organizing workflow • maintaining workplace records
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Apply Quality Control**
Unit Code	**IND SHP3 16 0613**
Unit Descriptor	This unit covers the knowledge, attitudes and skills required in applying quality control in manufacturing works.

Elements	Performance Criteria
1. Implement quality standards	1.1 Agreed quality standard and procedures are acquired and confirmed 1.2 Standard procedures are introduced to organizational staff / personnel. 1.3 Quality standard and procedures documents are provided to employees in accordance with the organization policy. 1.4 Standard procedures are revised / updated when necessary.
2. Assess quality of service delivered	2.1 Services delivered are ***checked*** against organization ***quality standards*** and specifications. 2.2 Service delivered are evaluated using the appropriate evaluation ***parameters*** and in accordance with organization standards. 2.3 Causes of any identified faults are identified and corrective actions taken in accordance with organization policies and procedures.
3. Record information	3.1 Basic information on the quality performance is recorded in accordance with organization procedures. 3.2 Records of work quality are maintained according to the requirements of the organization.
4. Study causes of quality deviations	4.1 Causes of deviations from final outputs or services are investigated and reported in accordance with organization procedures. 4.2 Suitable preventive action is recommended based on organization ***quality standards*** and identified causes of deviation from specified quality standards of final service or output.
5. Complete documentation	5.1 Information on quality and other indicators of service performance is recorded. 5.2 All service processes and outcomes are recorded.

Variable	Range
Quality check	• Check against design / specifications • Visual inspection and Physical inspection
Quality standards	• materials • components • process • procedures
Quality parameters	• standard design / specifications • material specification

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate to: • Check completed work continuously against organization standard • Identify and isolate faulty or poor service • Check service delivered against organization standards • Identify and apply corrective actions on the causes of identified faults or error • Record basic information regarding quality performance • Investigate causes of deviations of services against standard • Recommend suitable preventive actions
Underpinning Knowledge	Demonstrates knowledge of: • Relevant quality standards, policies and procedures • Characteristics of services • Safety environment aspects of service processes • Evaluation techniques and quality checking procedures • Workplace procedures and reporting procedures
Underpinning Skills	Demonstrates skills to: • interpret work instructions, specifications and standards appropriate to the required work or service • carry out relevant performance evaluation • maintain accurate work records • meet work specifications and requirements • communicate effectively within defined workplace procedures
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Lead Workplace Communication**
Unit Code	**IND SHP3 17 0613**
Unit Descriptor	This unit covers the knowledge, attitudes and skills needed to lead in the dissemination and discussion of information and issues in the workplace.

Elements	Performance Criteria
1. Communicate information about workplace processes	1.1 Appropriate ***communication method*** is selected. 1.2 Multiple operations involving several topics areas are communicated accordingly. 1.3 Questions are used to gain extra information. 1.4 Correct sources of information are identified. 1.5 Information is selected and organized correctly. 1.6 Verbal and written reporting is undertaken when required. 1.7 Communication skills are maintained in all situations.
2. Lead workplace discussion	2.1 Response to workplace issues is sought. 2.2 Response to workplace issues are provided immediately. 2.3 Constructive contributions are made to workplace discussions on such issues as production, quality and safety. 2.4 Goals/objectives and action plan undertaken in the workplace are communicated.
3. Identify and communicate issues arising in the workplace	3.1 Issues and problems are identified as they arise 3.2 Information regarding problems and issues are organized coherently to ensure clear and effective communication 3.3 Dialogue is initiated with appropriate staff/personnel 3.4 Communication problems and issues are raised as they arise

Variable	Range
Methods of communication	• Non-verbal gestures • Verbal • Face to face • Two-way radio • Speaking to groups • Using telephone • Written • Using Internet and Cell phone

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • Deal with a range of communication/information at one time • Make constructive contributions in workplace issues • Seek workplace issues effectively • Respond to workplace issues promptly • Present information clearly and effectively written form • Use appropriate sources of information • Ask appropriate questions • Provide accurate information
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Organization requirements for written and electronic communication methods • Effective verbal communication methods
Underpinning Skills	Demonstrates skills to: • Organize information • Understand and convey intended meaning • Participate in variety of workplace discussions • Comply with organization requirements for the use of written and electronic communication methods
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Lead Small Teams**
Unit Code	**IND SHP3 18 0613**
Unit Descriptor	This unit covers the knowledge, attitudes and skills to lead small teams including setting and maintaining team and individual performance standards.

Elements	Performance Criteria
1. Provide team leadership	1.1 ***Work requirements*** are identified and presented to team members. 1.2 Reasons for instructions and requirements are communicated to team members. 1.3 ***Team members' queries and concerns*** are recognized, discussed and dealt with.
2. Assign responsibilities	2.1 Duties and responsibilities are allocated having regarded to the skills, knowledge and aptitude required to properly undertake the assigned task and according to company policy. 2.2 Duties are allocated having regard to individual preference, domestic and personal considerations, whenever possible.
3. Set performance expectations for team members	3.1 Performance expectations are established based on client needs and according to assignment requirements. 3.2 Performance expectations are based on individual team members' duties and area of responsibility. 3.3 Performance expectations are discussed and disseminated to individual team members.
4. Supervised team performance	4.1 ***Monitoring of performance*** takes place against defined performance criteria and/or assignment instructions and corrective action taken if required. 4.2 Team members are provided with ***feedback***, positive support and advice on strategies to overcome any deficiencies. 4.3 ***Performance issues*** which cannot be rectified or addressed within the team are referenced to appropriate personnel according to employer policy. 4.4 Team members are kept informed of any changes in the priority allocated to assignments or tasks which might impact on client/customer needs and satisfaction. 4.5 Team operations are monitored to ensure that employer/ client needs and requirements are met.

	4.6 Follow-up communication is provided on all issues affecting the team. 4.7 All relevant documentation is completed in accordance with company procedures.

Variable	Range
Work requirements	• client profile • assignment instructions
Team member's concerns	• roster/shift details
Monitor performance	• formal process • informal process
Feedback	• formal process • informal process

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate to: • maintain or improve individuals and/or team performance given a variety of possible scenario • assess and monitor team and individual performance against set criteria • represent concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf • allocate duties and responsibilities, having regard to individual's knowledge, skills and aptitude and the needs of the tasks to be performed • set and communicate performance expectations for a range of tasks and duties within the team and provided feedback to team members
Underpinning Knowledge and Attitudes	Demonstrates knowledge of • maintaining or improving individuals and/or team performance given a variety of possible scenario • assessing and monitoring team and individual performance against set criteria • representing concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf • allocating duties and responsibilities, having regard to individual's knowledge, skills and aptitude and the needs of the tasks to be performed • setting and communicating performance expectations for a range of tasks and duties within the team and providing feedback to team members

Underpinning Skills	• communication skills required for leading teams • informal performance counseling skills • team building skills • negotiating skills
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Improve Business Practice**
Unit Code	**IND SHP3 19 0613**
Unit Descriptor	This unit covers the skills, knowledge and attitudes required in promoting, improving and growing business operations.

Elements	Performance Criteria
1. Diagnose the business	1.1 ***Data required*** for diagnosis is determined and acquired. 1.2 ***Competitive advantage*** of the business is determined from the data. 1.3 ***SWOT analysis*** of the data is undertaken.
2. Benchmark the business	2.1 Sources of relevant benchmarking data are identified. 2.2 ***Key indicators*** for benchmarking are selected in consultation with key stakeholders. 2.3 Like indicators of own practice are compared with benchmark indicators. 2.4 Areas for improvement are identified.
3. Develop plans to improve business performance	3.1 A consolidated list of required improvements is developed. 3.2 Cost-benefit ratios for required improvements are determined. 3.3 Work flow changes resulting from proposed improvements are determined. 3.4 Proposed improvements are ranked according to agreed criteria. 3.5 An action plan to implement the top ranked improvements is developed and agreed. 3.6 ***Organizational structures*** are checked to ensure they are suitable.
4. Develop marketing and promotional plans	4.1 The practice vision statement is reviewed. 4.2 Practice ***objectives*** are developed/reviewed. 4.3 Target markets are identified/refined. 4.4 ***Market research data*** is obtained. 4.5 ***Competitor analysis*** is obtained. 4.6 ***Market position*** is developed/reviewed. 4.7 Practice ***brand*** is developed. 4.8 ***Benefits*** of practice/practice products/services are identified. 4.9 ***Promotion tools*** are selected/developed.

5. Develop business growth plans	5.1 Plans to increase ***yield per existing client*** are developed. 5.2 Plans to add new clients are developed. 5.3 Proposed plans are ranked according to agreed criteria. 5.4 An action plan to implement the top ranked plans is developed and agreed. 5.5 Practice work practices are reviewed to ensure they support growth plans.
6. Implement and monitor plans	6.1 Implementation plan is developed in consultation with all relevant stakeholders. 6.2 Indicators of success of the plan are agreed. 6.3 Implementation is monitored against agreed indicators. 6.4 Implementation is adjusted as required.

Variable	**Range**
Data required includes:	• organization capability • appropriate business structure • level of client service which can be provided • internal policies, procedures and practices • staff levels, capabilities and structure • market, market definition • market changes/market segmentation • market consolidation/fragmentation • revenue • level of commercial activity • expected revenue levels, short and long term • revenue growth rate • break even data • pricing policy • revenue assumptions • business environment • economic conditions • social factors • demographic factors • technological impacts • political/legislative/regulative impacts • competitors, competitor pricing and response to pricing • competitor marketing/branding • competitor products
Competitive advantage includes:	• services/products • fees • location and timeframe

Objectives should be 'SMART' , that:	• Specific • Measurable • Achievable • Realistic • Time defined
Market research data includes:	• data about existing clients • data about possible new clients • data from internal sources • data from external sources such as: ➢ trade associations/journals ➢ Yellow Pages small business surveys ➢ libraries ➢ Internet ➢ Chamber of Commerce ➢ client surveys ➢ industry reports ➢ secondary market research • primary market research such as: ➢ telephone surveys ➢ personal interviews ➢ mail surveys
Competitor analysis	• competitor offerings • competitor promotion strategies and activities • competitor profile in the market place
SWOT analysis includes:	• internal strengths such as staff capability, recognized • quality • internal weaknesses such as poor morale, • under-capitalization, poor technology • external opportunities such as changing market and • economic conditions • external threats such as industry fee structures, strategic • alliances, competitor marketing
Key indicators may include:	• salary cost and staffing • personnel productivity (particularly of principals) • profitability • fee structure • client base • size staff/principal • overhead/overhead control
Organizational structures include:	• legal structure (partnership, limited liability company, etc.) • organizational structure/hierarchy • reward schemes
Market position	• product • the good or service provided

	• product mix • the core product - what is bought • the tangible product - what is perceived • the augmented product - total package of consumer • features/benefits • product differentiation from competitive products • new/changed products • price and pricing strategies (cost plus, supply/demand, ability to pay, etc.) • pricing objectives (profit, market penetration, etc.) • cost components • market position • distribution strategies • marketing channels • promotion • promotional strategies • target audience • communication • promotion budget
Practice brand may include:	• practice image • practice logo/letter head/signage • phone answering protocol • facility decor • slogans • templates for communication/invoicing • style guide • writing style • AIDA (Attention, Interest, Desire, Action)
Benefits may include:	• features as perceived by the client • benefits as perceived by the client
Promotion tools include:	• networking and referrals • seminars • advertising • press releases • publicity and sponsorship • brochures • newsletters (print and/or electronic) • websites • direct mail • telemarketing/cold calling
Yield per existing client may be increased by:	• raising charge out rates/fees • packaging fees • reduce discounts • sell more services to existing clients

Evidence Guide	
Critical Aspects of Competence	The candidate must be able to demonstrate: • ability to identify the key indicators of business performance • ability to identify the key market data for the business • knowledge of a wide range of available information sources • ability to acquire information not readily available within a business • ability to analyze data and determine areas of improvement • ability to negotiate required improvements to ensure implementation • ability to evaluate systems against practice requirements and form recommendations and/or make recommendations • ability to assess the accuracy and relevance of information
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • data analysis • communication skills • computer skills to manipulate data and present information • negotiation skills • problem solving • planning skills • marketing principles • ability to acquire and interpret relevant data • current product and marketing mix • use of market intelligence • development and implementation strategies of promotion and growth plans
Underpinning Skills	Demonstrates skill in: • data analysis and manipulation • ability to acquire and interpret required data, current practice systems and structures and sources of relevant benchmarking data • applying methods of selecting relevant key benchmarking indicators • communication skills • working and consulting with others when developing plans for the business • planning skills, negotiation skills and problem solving • using computers to manipulate, present and distribute information
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Spices and Herbs Processing Level III	
Unit Title	**Prevent and Eliminate MUDA**
Unit Code	**IND SHP3 20 0613**
Unit Descriptor	This unit of competence covers the knowledge, skills and attitude required by a worker to prevent and eliminate MUDA/wastes in his/her their workplace. It covers responsibility for the day-to-day operation of the work and ensures Kaizen elements are continuously improved and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	1.1 Work instructions are used to determine job requirements, including method, material and equipment. 1.2 Job specifications are read and interpreted following working manual. 1.3 ***OHS requirements***, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work. 1.4 Appropriate material is selected for work. 1.5 ***Safety equipment and tools*** are identified and checked for safe and effective operation.
2. Identify MUDA.	2.1 Plan of MUDA identification is prepared and implemented. 2.2 Causes and effects of MUDA are discussed. 2.3 ***Tools and techniques*** are used to draw and analyze current situation of the work place. 2.4 Wastes/MUDA are identified and measured based on ***relevant procedures***. 2.5 Identified and measured wastes are reported to relevant personnel.
3. Eliminate wastes/MUDA.	3. 1. Plan of MUDA elimination is prepared and implemented. 3. 2. Necessary attitude and ***the ten basic principles for improvement*** are adopted to eliminate waste/MUDA. 3. 3. Tools and techniques are used to eliminate wastes/MUDA based on the procedures and OHS. 3. 4. Wastes/MUDA are reduced and eliminated in accordance with OHS and organizational requirements. 3. 5. Improvements gained by elimination of waste/MUDA are reported to relevant bodies.
4. Prevent occurrence of wastes/MUDA.	4.1 Plan of MUDA prevention is prepared and implemented.

	4.2 Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement are discussed and prepared. 4.3 Occurrences of wastes/MUDA are prevented by using ***visual and auditory control methods***. 4.4 Waste-free workplace is created using ***5W and 1H***sheet. 4.5 The completion of required operation is done in accordance with standard procedures and practices. 4.6 The updating of standard procedures and practices is facilitated. 4.7 The capability of the work team that aligns with the requirements of the procedure is ensured.

Variable	**Range**
OHS requirements	May include but not limited to: • Are to be in accordance with legislation/ regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances. • Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices. • Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization. • Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.
Safety equipment and tools	May include but not limited to: • dust masks / goggles • glove • working cloth • first aid • safety shoes
Tools and techniques	May include but not limited to: • Plant Layout • Process flow • Other Analysis tools • Do time study by work element • Measure Travel distance

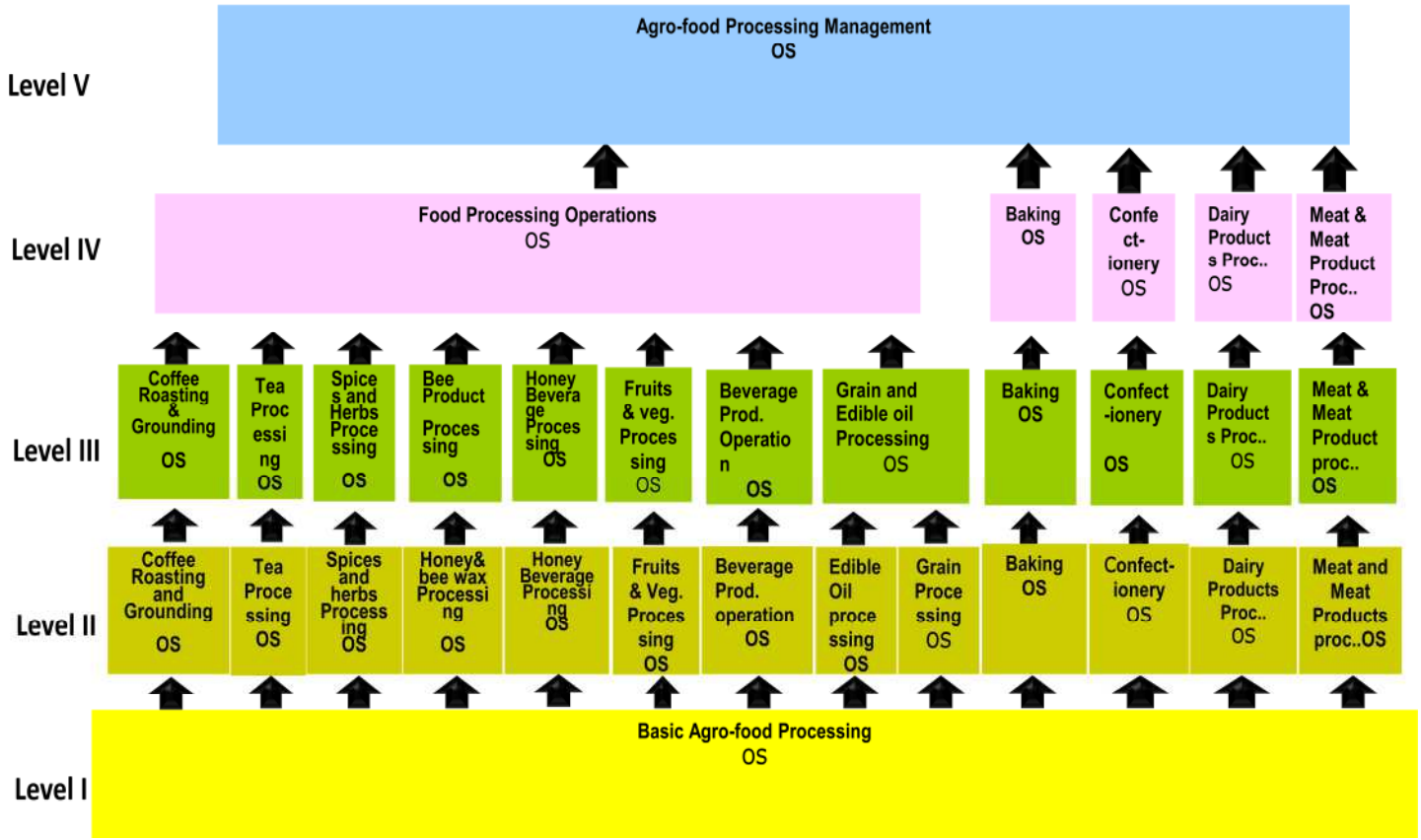
	• Take a photo of workplace • Measure Total steps • Make list of items/products, who produces them and who uses them & those in warehouses, storages etc. • Focal points to Check and find out existing problems • 5S • Layout improvement • Brainstorming • Andon • U-line • In-lining • Unification • Multi-process handling & Multi-skilled operators • A.B. control (Two point control) • Cell production line • TPM (Total Productive Maintenance)
Relevant procedures	May include but not limited to: • Make waste visible • Be conscious of the waste • Be accountable for the waste. • Measure the waste.
The ten basic principles for improvement	May include but not limited to: • Throw out all of your fixed ideas about how to do things. • Think of how the new method will work- not how it won. • Don't accept excuses. Totally deny the status quo. • Don't seek perfection. A 5o percent implementation rate is fine as long as it's done on the spot. • Correct mistakes the moment they are found. • Don't spend a lot of money on improvements. • Problems give you a chance to use your brain. • Ask "why?" at least five times until you find the ultimate cause. • Ten people's ideas are better than one person's. • Improvement knows no limits.
Visual and auditory control methods	May include but not limited to: • Red Tagging • Sign boards • Outlining • Andons • Kanban, etc.
5W and 1H	May include but not limited to: • Who • What • Where

	• When • Why • How

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: • discuss why wastes occur in the workplace • discuss causes and effects of wastes/MUDA in the workplace • analyze the current situation of the workplace by using appropriate tools and techniques • identify, measure, eliminate and prevent occurrence of wastes by using appropriate tools and techniques • use 5W and 1H sheet to prevent
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: • Targets of customers and manufacturer/service provider • Traditional and kaizen thinking of price setting • Kaizen thinking in relation to targets of manufacturer/service provider and customer • value • The three categories of operations • the 3“MU” • waste/MUDA • wastes occur in the workplace • The 7 types of MUDA • The Benefits of identifying and eliminating waste • Causes and effects of 7 MUDA • Procedures to identify MUDA • Necessary attitude and the ten basic principles for improvement • Procedures to eliminate MUDA • Prevention of wastes • Methods of waste prevention • Definition and purpose of standardization • Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement • Methods of visual and auditory control • TPM concept and its pillars. • Relevant Occupational Health and Safety (OHS) and environment requirements • Plan and report • Method of communication
Underpinning Skills	Demonstrates skills to: • draw & analyze current situation of the work place

	• use measurement apparatus (stop watch, tape, etc.) • calculate volume and area • use and follow checklists to identify, measure and eliminate wastes/MUDA • identify and measure wastes/MUDA in accordance with OHS and procedures • use tools and techniques to eliminate wastes/MUDA in accordance with OHS procedure • apply 5W and 1H sheet • update and use standard procedures for completion of required operation • work with others • read and interpret documents • observe situations • solve problems • communicate • gather evidence by using different means • report activities and results using report formats
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Sector: Industry
Sub- sector: Agro-food Processing



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This occupational standard was developed on the date of June 25, 2013 at Debre Zeyit Ethiopian Management Institute.

COMMENT TEMPLATE

The Federal TVET Agency values your feedback of the document.
If you would like someone to personally contact you, please provide the following information:
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