



Australian Government

FBPSUG2010 Operate a juice clarification process

Release: 1

FBPSUG2010 Operate a juice clarification process

Modification History

Release	Comments
Release 1	This version released with the FBP Food, Beverage and Pharmaceutical Training Package Version 2.0.

Application

This unit of competency describes the skills and knowledge required to operate a juice clarification process from the juice tanks through to the clarifiers.

The unit applies to individuals who work under supervision in the sugar milling industry.

All work must be carried out to comply with workplace procedures according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Sugar milling (SUG)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the clarification process for operation	1.1 Confirm raw juice is available to meet production requirements 1.2 Confirm services are available and ready for operation 1.3 Check equipment in readiness for use according to operating specifications 1.4 Select, fit and use personal protective equipment as required 1.5 Set the clarification process to meet production requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Operate and monitor the clarification process	2.1 Start and operate the clarification process according to operating procedures 2.2 Confirm process performance is maintained within specification 2.3 Ensure clarified product meets specifications 2.4 Monitor equipment to confirm operating condition 2.5 Identify, rectify or report product, process and equipment non-conformance according to workplace procedures
3. Hand over the clarification process	3.1 Maintain workplace records according to workplace procedures 3.2 Carry out shift changeover according to workplace procedures 3.3 Ensure clarification operators are aware of system and related equipment status at completion of handover
4. Shut down the clarification process	4.1 Identify the appropriate shutdown procedure for operational and long-term shutdown conditions 4.2 Safely shut down the clarification system according to operating specifications and workplace procedures 4.3 Prepare the clarification system for storage in shutdown mode 4.4 Identify and report operational maintenance requirements according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	- Interpret production requirements, workplace and standard operating procedures relevant to job role - Interpret production requirements
Numeracy	Interpret production and process control indicators and data
Navigate the world of work	Follow workplace procedures applicable to own role and responsibilities

Skill	Description
	Understand main tasks, responsibilities and boundaries of own role
Interact with others	Apply communication practices and protocols relevant to own role
Get the work done	- Complete tasks in required sequence - Apply decision-making processes to respond to abnormal performance

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPSUG2010 Operate a juice clarification process	FDFSUG210A Operate a juice clarification process	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume Implementation Guides are found in VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPSUG2010 Operate a juice clarification process

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a juice clarification process in line with workplace contexts and demonstrated each of the following points at least once:

- checked availability of raw juice and services
- conducted pre-start checks on machinery used for clarification
- selected, fitted and used personal protective equipment (PPE)
- safely operated, monitored and adjusted the process from the juice tanks through to the clarifiers
- recorded process and production information
- taken corrective action in response to typical operating faults and product and process non-conformance
- conducted shift changeover procedure
- shut down the process in both automatic and manual modes and reported maintenance requirements.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of clarification, including heating, liming, juice degasification, saccharate and flocculant addition
- the flow of the process and the relationship to related processes, including the consequences of poor clarification on downstream processes
- equipment purpose and basic operating requirements of juice clarification equipment
- the effect of recycle streams on the clarification process
- the effect of faulty preparation of materials
- quality characteristics of raw juice and of clarified product
- the impact of dextran on sugar quality

- the function of the incubation tank and starch removal
- conditions that can cause deterioration in juice
- significance and method of monitoring control points within the process
- plant and equipment manufacturer's operating procedures
- key health and safety requirements when operating a juice clarification process in the workplace:
 - hazards and associated control measures
 - manual handling procedures
 - correct use of PPE
 - procedures for responding to emergency situations
 - lock-out and tag-out procedures
- procedures and responsibility for reporting problems associated with the juice clarification process
- environmental and waste handling requirements and procedures for the juice clarification process.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a sugar milling workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - PPE
 - juice clarification equipment and services as required
 - workplace information recording system
 - maintenance tools
- specifications:
 - workplace and operating procedures and related advice on equipment operation, including advice on safe work practices and environmental requirements
 - product and process specifications and operating parameters
 - sampling schedule and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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