



**Australian Government**

# **FBPFAV3003 Conduct chemical wash for fresh produce**

**Release: 1**

# FBPFAV3003 Conduct chemical wash for fresh produce

## Modification History

| Release   | Comments                                                                                       |
|-----------|------------------------------------------------------------------------------------------------|
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 6.0. |

## Application

This unit of competency describes the skills and knowledge required to implement a wash process for fresh produce where chemicals, including chlorine, are used to achieve quality standards.

This unit applies to individuals who set and monitor levels of cleaning chemicals while conducting wash operations in a food processing production environment. It typically applies to produce that includes leafy greens and fruit, where chemicals are used to ensure required cleaning outcomes.

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

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

## Pre-requisite Unit

Nil

## Unit Sector

Fruit and Vegetables (FAV)

## 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. Confirm required use of chemicals             | 1.1 Identify chemicals used for the washing of fresh produce, and confirm required quantities<br>1.2 Identify hazards and risks associated with using chemicals, and |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                  | implement control measures throughout operations<br>1.3 Prepare and use personal protective equipment according to workplace safety procedures<br>1.4 Identify and apply storage and handling requirements for chemicals                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. Prepare for washing operation                 | 2.1 Confirm and prepare raw materials for washing according to production specifications<br>2.2 Confirm equipment for operational readiness, and fit and adjust components and related attachments<br>2.3 Carry out pre-start checks according to operator instructions<br>2.4 Measure chemicals and add dose according to specifications<br>2.5 Check performance of chemical-dosing equipment to confirm accuracy<br>2.6 Check water quality and confirm suitability for use                                                                                                                                                                                                              |
| 3. Operate and monitor the washing process       | 3.1 Start and operate the washing process according to operating instructions and health and safety requirements<br>3.2 Check water mix to confirm correct levels of chemicals<br>3.3 Monitor washing process to ensure raw materials meet product specifications<br>3.4 Transfer washed materials for further processing or packaging<br>3.5 Identify variation in equipment operation, and report maintenance requirements<br>3.6 Identify, rectify and report out-of-specification product or process outcomes<br>3.7 Maintain the work area according to workplace procedures, food safety and work health and safety requirements<br>3.8 Maintain workplace records in required format |
| 4. Shut down the washing process                 | 4.1 Implement the appropriate shutdown procedure<br>4.2 Handle, store and dispose of chemicals according to workplace procedures and environmental regulations<br>4.3 Identify and report 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                                                                                                                                                                                    |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Learning | <ul style="list-style-type: none"> <li>Identify routine problems and implement standard solutions according to workplace guidelines</li> </ul>                                                 |
| Reading  | <ul style="list-style-type: none"> <li>Read and interpret standard operating procedures and directions for the safe operation of equipment when operating the chemical wash process</li> </ul> |
| Writing  | <ul style="list-style-type: none"> <li>Record product and processing information using digital and/or paper-based formats</li> </ul>                                                           |
| Numeracy | <ul style="list-style-type: none"> <li>Measure (ml, L) and mix correct ratios of chemicals to water in the wash process</li> </ul>                                                             |

## Unit Mapping Information

| Code and title current version                        | Code and title previous version                       | Comments                                                                                                                                                                                            | Equivalence status |
|-------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| FBPFAV3003<br>Conduct chemical wash for fresh produce | FBPFAV3001<br>Conduct chemical wash for fresh produce | Minor changes to Performance Criteria to clarify intent<br><br>Foundation Skills refined<br><br>Performance Evidence clarified<br><br>Minor changes to Knowledge Evidence and Assessment Conditions | Equivalent         |

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

# Assessment Requirements for FBPFAV3003 Conduct chemical wash for fresh produce

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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 conducted a chemical wash of at least one batch of fresh produce to meet product specifications, including:

- applying safe work practices
- applying food safety procedures to work practices
- taking corrective action in response to typical faults and inconsistencies with the washing process.

## 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 basic principles of the washing process, including the importance of water quality and the role of chemicals in the washing process
- basic operating principles of equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required for the chemical wash process, and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the washing, including the consequences of out-of-specification moisture levels on further processing and final product
- quality requirements of raw materials, and effect of variation on process performance, including how variation in microbial load can affect the washing process
- implications of incorrect chemical levels on fresh produce

- operating requirements, parameters and corrective action required, where operation is outside specified operating parameters
- good manufacturing practices (GMP) relevant to work task
- typical equipment faults and related causes, including:
  - signs and symptoms of faulty equipment
  - early warning signs of potential problems
- methods used to monitor the washing process, including 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/cross-contamination and food safety risks associated with the process, and related control measures
- common causes of variation, and corrective action required
- workplace health and safety hazards and controls relevant to chemical wash process
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including:
  - emergency and routine shutdowns
  - procedures to follow in the event of a power outage
  - isolation, lock-out and tag-out procedures and responsibilities
- product or process changeover 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 waste disposal
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- sampling and testing associated with process monitoring and control
- routine maintenance procedures for washing equipment
- cleaning and sanitisation procedures for washing equipment
- procedures to track traceability of product.

## Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
  - a fresh food processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment
  - washing equipment and services, including water and chemicals
  - raw materials to be processed
  - cleaning materials and equipment

- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - information on equipment capacity and operating parameters
  - production schedule and batch instructions
  - sampling schedules and test procedures and equipment
  - recording requirements and procedures.

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

## **Links**

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