



Australian Government

Assessment Requirements for FBPBEV3005 Operate and monitor juice processing

Release: 1

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Modification History

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

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 pressing and pasteurising equipment to process at least one batch of milled fruit and/or vegetables to meet juice specification, including:

- applying safe work procedures
- following food safety procedures
- monitoring stored product to specification
- taking corrective action in response to typical faults and inconsistencies.

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 juice processing process, including stages and changes that occur during the pressing and pasteurisation process, and that can occur during storage of juice
- basic operating principles of equipment for the pressing and pasteurisation process, including:
 - safety hazards associated with pressing equipment
 - 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 operation of juice processing equipment used in the workplace
- the flow of the pressing, pasteurisation and storage process, and the effect of product output on downstream processes
- quality characteristics of pasteurised juice

- methods used to monitor the pressing process, including inspecting, measuring and testing in-feed and out-feed solids, and other tests as required by the process
- good manufacturing practices (GMP) relevant to work task
- health and safety hazards and controls, including the purpose and limitations of protective clothing and equipment relevant to the work process
- inspection or test points (control points) in the pressing process and the related procedures and recording requirements, including use of refractometers
- 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
- contamination/cross-contamination, spoilage and other food safety risks associated with pressed juice, and related control measures
- common microbiological, physical, chemical and allergen 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
- standard microbiological techniques to identify food poisoning and spoilage organisms
- the importance of plant hygiene and how it can affect the finished product
- microbiological toxins and aflatoxins
- common chemical reactions that occur in juice processing, including both spontaneous and controlled reactions, including:
 - the role of enzymes, ascorbic acid and nitrogen gas in generating biological reactions
 - tests commonly used to measure phenomena, and related units of measurement
 - the role of temperature and pressure in the transition process
- pH and its impact on fermentation
- 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 required for operating the process
- cleaning and sanitisation procedures required for operating pressing, pasteurisation and storage equipment
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the operation of the juice processing process, including handling of waste
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- recording procedures to ensure traceability of product.

Assessment Conditions

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

- physical conditions:
 - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective clothing and equipment
 - juice pressing and pasteurisation equipment and related services
 - fruit and/or vegetables to be pressed
 - sampling schedules and test procedures and equipment as required
 - 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 specifications, control points and processing parameters
 - 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

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