Modification history

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

| FBPFST4052 | Review production system for manufacturing and processing of edible fats and oils |
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| Application | This unit of competency describes the skills and knowledge required to review the production system for manufacturing and processing of edible fats and oils, based on the preparation of product samples.  This unit applies to food science and technology personnel who have roles in product design, quality assurance and production management. The unit typically applies to staff who have responsibility for maintaining product safety, quality and efficiency in food production in the edible fats and oils sector  No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice. |
| Prerequisite Unit | Nil |
| Unit Sector | Food science and technology (FST) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Review preparation of plant and animal products for oil extraction and processing | 1.1 Identify processing stages for preparation of products  1.2 Establish the principles of pre-treatments for fat and oil processing  1.3 Establish regulatory, quality and safety requirements |
| 2. Monitor processing techniques and technologies to produce fat or oil product | 2.1 Identify processing techniques and technologies used to produce products  2.2 Identify the steps involved in the manufacture of the product  2.3 Identify permissible additives used in the production product  2.4 Apply appropriate hygiene and sanitation practices  2.5 Identify data requirements appropriate for food safety, quality and production standards  2.6 Establish data collection points consistent with equipment capabilities and data requirements  2.7 Develop procedures to deal with non-conformance in relation to process and the final product  2.8 Conduct test runs of the manufacturing process and check product against requirements |
| 3. Review packaging of fat and oil products | 3.1 Identify suitable packaging requirements for the products and check against regulatory, client and company requirements  3.2 Undertake test packaging of products and check for safety and conformance to client and company requirements |
| 4. Assess the quality, safety and shelf life of fats and oil products | 4.1 Carry out a range of testing techniques to assess the safety of the products  4.2 Carry out a range of testing techniques assess the quality of the products  4.3 Carry out a range of testing techniques to determine the shelf life of the products  4.4 Conduct sensory analysis  4.5 Identify and assess all common hazards and critical control points (CCPs) for the production of products |
| 5. Review production processes | 5.1 Monitor and review the critical control points (CCPs) and critical limits for product safety  5.2 Review operating procedures for food safety and quality  5.3 Review the production plan against company and client schedules and quality requirements  5.4 Review environmental impacts and associated costs for processing of food products |

| 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. | |
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| Skill | Description |
| Reading | * Interprets food safety guidelines and regulations * Interprets product quality and workplace procedures |
| Writing | * Develops procedures for implementing and monitoring a product quality system |
| Numeracy | * Maintains and analyses data resulted from testing of products * Determines calibration procedures and schedule for test equipment |
| Navigate the world of work | * Monitors adherence to legal and regulatory standards and responsibilities for self and others |
| Get the work done | * Monitors outcomes of decisions and identifies key product quality systems concepts and principles that may be adaptable to future situations * Identifies current innovative practice and organisational trends * Uses digital tools to monitor processes and access and organise complex data |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FBPFST4052 Review production system for manufacturing and processing of edible fats and oils | FDFFST4052A Implement and review the manufacturing and processing of edible fats and oils | Updated to meet Standards for Training Packages  Title changed | Equivalent unit |

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

| TITLE | Assessment requirements for FBPFST4052 Review production system for manufacturing and processing of edible fats and oils |
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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 reviewed at least one production system for the manufacture and processing of edible fats and oils, including:   * reviewing the various methods of storage which assist to prolong the shelf life of fats and oils * applying processing techniques, using commercial materials and equipment * carrying out product testing * monitoring compliance of processing procedures with food safety and quality requirements * diagnosing, rectified and/or reported problems and non-compliances arising from the preparation and production of animal- and plant-based fats and oils * interpreted critical control points (CCPs) and critical limits. | |

| Knowledge Evidence |
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| 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:   * widely available animal- and plant-based fats and oils and seasonal availability * the physiological changes that can occur to plant-based products during harvest * various methods of storage that assists in prolonging the shelf life of animal- and plant-based fats and oils * principles of pre-treatments as applies to animal- and plant-based fats and oils * processing techniques and technologies used to produce animal- and plant-based fats and oils * testing techniques used to identify quality and safety parameters of animal- and plant-based fats and oils * packaging requirements for animal- and plant-based fats and oils * sensory analysis parameters for animal- and plant-based fats and oils * common food spoilage and food poisoning organisms associated with animal- and plant-based fats and oils * manufacturing processes for a range of animal- and plant-based fats and oils * the physiology of animal- and plant-based fats and oils * methods of storage for animal- and plant-based fats and oils * regulatory, quality and safety requirements relating to the production of animal- and plant-based fats and oils * CCPs and critical limits at each stage of the production process * environmental impacts of the processing operation * work health and safety hazards and controls relating to work processes. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace * resources, equipment and materials: * production process and related equipment, manufacturers’ advice and operating procedures * methods and related software systems for collecting data and calculating yields, efficiencies and material variances appropriate to production environment * specifications: * tests used to report relevant product/process information and recorded results.   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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