



Australian Government

Department of Education, Employment and Workplace Relations

FDFRB4004A Produce sourdough products

Release: 2

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Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to produce sourdough bakery products.
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Application of the Unit

Application of the unit	<p>This unit has application in a retail or wholesale baking environment. It targets the worker responsible for the complete production of sourdough products and requires an approach which incorporates hand moulding and natural fermentation.</p> <p>Sourdough products include those produced using spontaneously fermented doughs and bacteria fermented without the addition of commercial yeast.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Examine features and processes in sourdough production	1.1 Key differences between sourdough and straight dough products and the range of sourdough products are identified 1.2 Implications of using sourdough on production processes and requirements are identified 1.3 Techniques used to produce sourdough are examined and the range of outcomes identified 1.4 Role of ingredients and bacteria in sourdough fermentation and types of yeast are identified 1.5 Benefits of sourdough products and organic ingredients are identified and marketing opportunities examined
2. Produce sourdough starter	2.1 Process for fermentation and development of sourdough starter is selected 2.2 Flour and other ingredients are selected to refresh culture and achieve desired outcomes 2.3 Impacts of flour types, temperature, time and moisture on fermentation is described and typical problems identified 2.4 Ingredients and equipment are selected and prepared for use 2.5 Starter is generated and refreshed to achieve optimum fermentation activity 2.6 Appearance, size and aroma are examined to assess starter maturity
3. Prepare sourdough products	3.1 Ingredients are selected, weighed and mixed according to production requirements 3.2 Bulk fermentation is conducted 3.3 Dough is divided, rested and moulded 3.4 Dough pieces are retarded according to anticipated sales requirements 3.5 Dough pieces are selected at optimum proof and baked according to product requirements 3.6 Final product is cooled, assessed for quality and prepared for sale 3.7 Processes specified are in accordance with workplace environmental guidelines
4. Assess commercial viability of sourdough product	4.1 Marketplace interest in sourdough products is assessed through research 4.2 Product ingredients and production costs are calculated 4.3 Product is priced according to business pricing policy and estimated costs calculated 4.4 Actual costs are analysed 4.5 Product range is selected and produced according to commercial

ELEMENT**PERFORMANCE CRITERIA**

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4.6 Spoils and waste are recorded

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Ability to:

- evaluate sourdough products within bakery range
- compare and select ingredients for sourdough products
- produce and maintain starter cultures
- mould dough to meet market expectations
- monitor stages in the sourdough fermentation process
- assess product quality
- produce a range of sourdough products
- finish and present bread product to meet product and customer requirements, including applying toppings as required
- clean equipment, utensils and work area to comply with hygiene standards
- maintain workplace records as required
- maintain work area to meet housekeeping standards
- measure actual production costs against estimate and account for any variation
- 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.

Required knowledge includes:

Knowledge of:

- the science behind the production of sourdough
- techniques and processes in the manufacture of sourdough
- health benefits associated with eating sourdough products
- markets for sourdough produce
- sourdough ingredients and processes, including:
 - preparation techniques
 - processing techniques
 - production techniques
- range of grains in breads and types of specialty flours
- use of pre-ferments, double hydration techniques, use of sprouted grains and use of specialty flours, such as buckwheat and spelt
- different mixing, shaping and baking techniques
- principles and processes involved for extended fermentation doughs
- fermentation process in chemical and natural sourdoughs as this affects dough preparation, baking and final product characteristics, and related food safety issues
- preparation stages and requirements for nominated bread types, including:

- starter preparation
- dough scaling and moulding methods, including sheeting, hand scaling, and mechanical dividing and rounding
- intermediate proof methods
- baking parameters for different bread types
- the effect of ingredients on shelf life and food safety
- optimum storage conditions and shelf life for ingredients and related sequencing requirements
- optimum storage conditions for the finished product prior to sale
- ingredient suppliers and pricing information
- methods of estimating fixed and variable costs, and profit margin to determine sale price range
- trade practice issues when pricing products
- business policy and parameters in pricing products.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competency in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • describe the features, benefits and processes that apply to sourdough products • describe the impacts of process and ingredients on sourdough products • produce starter culture • produce a range of sourdough products • identify and address problems with dough development, fermentation and production • investigate market interest in sourdough products • assess outcomes against quality standards • apply safe work practices and identify OHS hazards and controls

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • cost final product • apply food safety procedures.
Context of and specific resources for assessment	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • work procedures, including advice on relevant product requirements, safe work practices, food safety, quality and environmental requirements • recipes and customer specifications • production equipment appropriate to product type • materials/ingredients to meet recipe requirements • ingredient pricing information • personal protective clothing, equipment and material safety data sheets (MSDS), as required • cleaning procedures, materials and equipment as required.
Method of assessment	This unit should be assessed together with other units of competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency of performance, competency should be assessed on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
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	Legislative requirements are typically reflected in

RANGE STATEMENT	
	<p>procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> the Food Standards Code, including labelling, weights and measures legislation legislation covering food safety, environmental management and occupational health and safety (OHS)
Ingredients	<p>Ingredients may include combinations of:</p> <ul style="list-style-type: none"> flour (e.g. rye, white, wholemeal and organic) water fruit (e.g. apples, pears and dried fruits) vegetables (e.g. potatoes and pumpkin) nuts, grains and seeds salt eggs dairy products fats and oils
Fermentation problems	<p>Fermentation problems may relate to:</p> <ul style="list-style-type: none"> temperature moisture timing contamination ingredients
Sourdough products	<p>Sourdough products may include:</p> <ul style="list-style-type: none"> Organic traditional and yeasted breads, cakes and pastries
Market research	<p>Market research may include:</p> <ul style="list-style-type: none"> customer surveys product tasting customer consultations product trials

Unit Sector(s)

Unit sector	Retail baking
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