

<b>Title</b>	<b>Demonstrate and apply knowledge of machines and processes used to produce freeze-dried products</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of meat freeze-drying processes, machines and products; prepare frozen meat products for freeze drying; and operate a freeze drier to freeze meat products, in a meat processing operation.
----------------	--

<b>Classification</b>	Meat Processing > Meat Manufacturing
-----------------------	--------------------------------------

<b>Available grade</b>	Achieved
------------------------	----------

---

### Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
  - Health and Safety at Work Act 2015;
  - Animal Products Act 1999;
 and any subsequent amendments.
  
- 2 Resource documents include but are not limited to – *Industry standard 3/Industry agreed standard 3 – Hygiene and Sanitation; Industry Standard 6/Industry Agreed Standard 6 (IS6/IAS6) – Processing of Edible Product*, available from the Ministry for Primary Industries at <http://www.foodsafety.govt.nz/industry/sectors/meat-ostrich-emu-game/meatman/index.htm>.
  
- 3 Definitions
 

*Company loading specifications* – the specific information and attributes of how a company's product is to be packed, loaded and shipped to market.

*Company specifications* – product specifications set by the company relating to cuts, weights, presentation, and packaging.

*Customer specifications* – product specifications set by clients relating to cuts, weights, presentation, and packaging.

*Manufacturer's specifications* – instructions from the manufacturer which outlines the specifications, parts, maintenance, service schedule, repair and running of specific equipment.

*Organisational requirements* – instructions to staff on policies and procedures that are documented in memo, electronic, or manual format and available in the workplace.

*Production schedules* – the process of arranging, controlling and optimizing work and workloads in a production or manufacturing process.

*Product specifications* – the specific information and attributes required for the standardised production of a particular food product.

---

## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of meat freeze-drying processes, machines and products.

#### Performance criteria

- 1.1 Describe raw products received by a freeze-drying department in terms of their types, amounts, and sources in accordance with customer and company specifications.
- 1.2 Describe handling and storage methods for each type of raw product received in accordance with organisational requirements.
- 1.3 Describe processing steps and methods for each type of product produced in accordance with product specifications.
- 1.4 Describe types of end-product produced in terms of their uses in accordance with company specifications.
- 1.5 Identify the organisation's main markets for each end product in accordance with customer specifications, company and product specifications.
- 1.6 Describe machines used in a freeze-drying process in terms of their function in accordance with manufacturer's specifications.
- 1.7 Describe any special monitoring and maintenance requirements of freeze-drying machines in terms of organisational and manufacturer's specifications.
- 1.8 Describe procedures for handling machine malfunctions and breakdowns in terms of organisational and manufacturer's specifications.

### Outcome 2

Prepare frozen meat products for freeze drying.

#### Performance criteria

- 2.1 Remove frozen meat products from containers and bandsaw to required thickness in accordance with customer and company specifications.
- 2.2 Place sliced frozen meat products on freeze drying trays and re-freeze in accordance with company specifications.

### Outcome 3

Operate a freeze drier to freeze meat products in a meat processing operation.

**Performance criteria**

- 3.1 Prepare a freeze drier for operation in accordance with organisational requirements and manufacturer's specifications.
- 3.2 Load a freeze drier with trays of prepared frozen products in accordance with production schedules and company loading specifications.
- 3.3 Start up, monitor, adjust, and record freeze-drier operations for the product being freeze dried in terms of organisational requirements.
- Range requirements include but are not limited to – vacuum, temperature, time.
- 3.4 Monitor and test meat product quality for each batch in terms of organisational requirements.
- 3.5 Shut down freeze drier operations in terms of organisational requirements and manufacturer's specifications.
- 3.6 Empty a freeze drier of freeze-dried meat products, place products in containers, and transport to storage and packing areas in terms of organisational requirements.
- 3.7 Secure meat products in the event of any machinery malfunctions interrupting the freeze-drying process in accordance with company and manufacturer's specifications.

<b>Replacement information</b>	This unit standard replaced unit standard 3113 and unit standard 3114.
--------------------------------	--

<b>Planned review date</b>	31 December 2024
----------------------------	------------------

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	27 January 2015	31 December 2021
Review	2	24 October 2019	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0033
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact the Primary Industry Training Organisation [standards@primaryto.ac.nz](mailto:standards@primaryto.ac.nz) if you wish to suggest changes to the content of this unit standard.