



## New Zealand Apprenticeship in Dairy Product Process Operations (Level 4) Milk Protein with an optional strand in Automated Cleaning and Heat Treatment

2562 - NZC in Dairy Processing (Level 3) Automated Cleaning and Heat Treatment

2563 - NZC in Dairy Processing (Level 4) Milk Protein Automated Cleaning and Heat Treatment

<b>Name</b>		<b>Employer</b>	
<b>Employee Number (if applicable)</b>		<b>Workplace/Site</b>	
<b>Enrolment Date</b>		<b>Duration</b>	<b>27 Months</b>
<b>Programme Title</b>	PR-40725 - NZA - Dairy Product Process Operations L4 Milk Protein Automated Cleaning and Heat Treatment v2		
<b>Training Plan</b>			<b>Activate</b>
2562 - NZC in Dairy Processing (Level 3) Automated Cleaning and Heat Treatment - 70 credits			<input type="checkbox"/>
2563 - NZC in Dairy Processing (Level 4) Milk Protein Automated Cleaning and Heat Treatment - 90 credits			<input type="checkbox"/>

### New Zealand Apprenticeship Requirements

You will be awarded this New Zealand Apprenticeship once you have completed both Level 3 and Level 4 qualification requirements below.

#### Level 3 - Compulsory

The following unit standards are required

Unit No.	Unit Title	Version	Level	Credits	Selected
28644	Apply safe work practices in own work area in a primary industry operation	3	3	3	3
28624	Demonstrate and apply knowledge of sustainable environmental practices in a primary industry operation	2	3	2	2
28630	Apply hygiene and food safety procedures to own work area in a primary products food processing operation	2	3	5	5
28619	Identify quality assurance requirements for own work and monitor own work quality in a primary industry operation	3	3	5	5
28650	Work in a team to achieve designated tasks in a primary industry operation	2	3	3	3
28931	Interact with internal customers in a primary industry operation	2	3	2	2
28633	Demonstrate knowledge of cleaning and sanitation in a primary products food processing operation	2	3	5	5
28634	Clean and sanitise work areas, machinery, and equipment in a primary products food processing operation	2	3	2	2
28621	Comply with all documentation requirements in a primary industry operation	2	3	3	3
19977	Comply with aseptic sampling techniques in a dairy processing operation	4	3	5	5

16302	Demonstrate knowledge of the prevention and control of foreign matter contamination of dairy products	5	3	5	5
28981	Demonstrate knowledge of the risks, testing and control of microorganisms in a dairy processing operation	1	3	5	5
4826	Demonstrate knowledge of the composition of milk and the chemical and physical changes during dairy product processing	6	3	5	5
4829	Demonstrate knowledge of heat transfer and heat treatment in a dairy processing operation	6	3	5	5
28639	Demonstrate knowledge of clean-in-place processes in a primary products food processing operation	1	3	5	5
19984	Conduct a titration of a clean-in-place solution in a dairy processing operation	4	3	5	5

### Level 3 Elective – Process and Packing

Select 5 credits from one of the contexts

Unit No.	Unit Title	Version	Level	Credits	Selected
<b>Cheese Making</b>					
4833	Demonstrate knowledge of cheese making	7	3	5	
<b>Cream Products</b>					
4830	Demonstrate knowledge of cream products processing in a dairy processing operation	6	3	5	
<b>Ice cream and other frozen milk products</b>					
4307	Demonstrate knowledge of the manufacture of frozen milk products in a dairy processing operation	6	3	5	
<b>Milk Powder</b>					
4831	Demonstrate knowledge of evaporation and spray drying of dairy products in a dairy processing operation	6	3	5	
<b>Milk protein - Casein</b>					
4832	Demonstrate knowledge of casein processing in a dairy processing operation	6	3	5	
<b>Milk protein - Whey</b>					
28610	Demonstrate knowledge of membrane separation processing in a dairy processing operation	1	3	5	
<b>Ethanol - Production</b>					
28605	Demonstrate knowledge of ethanol processing in a dairy processing operation	1	3	5	
<b>Milk Treatment</b>					
28608	Demonstrate knowledge of a milk treatment process in a dairy processing operation	1	3	5	
<b>UHT</b>					
4304	Demonstrate knowledge of the manufacture of ultra-heat treated (UHT) products in a dairy processing operation	6	3	5	
<b>Cultured dairy products and Dairy desserts</b>					
4305	Demonstrate knowledge of the manufacture of cultured dairy products and dairy desserts in a dairy processing operation	6	3	5	
<b>Processed Cheese</b>					
4306	Demonstrate knowledge of processed cheese manufacturing	7	3	5	
<b>Packaging and palletising</b>					
4835	Demonstrate knowledge of product packaging and palletizing processes of dairy products	6	3	5	
<b>Nutritionals</b>					

31931	Describe the processing of nutritional products in a dairy processing operation	1	3	5	
<b>Milk Collection</b>					
16312	Explain foot and mouth disease controls in the processing of milk in the dairy industry	4	3	4	
18405	Comply with a product safety programme in the dairy industry	3	3	4	
<b>Level 3 Credit Summary</b>					<b>Selected</b>
Total Credits from Compulsory					<b>65</b>
Total Credits from Elective					
<b>Total Qualification Credits (no more than 73 credits)</b>					<b>70</b>

## Level 4 - Compulsory

The following unit standards are required

Unit No.	Unit Title	Version	Level	Credits	Selected
28652	Demonstrate knowledge of and implement workplace planning in a primary products food processing operation	2	4	10	<b>10</b>
28653	Collect and convey workplace information in a primary products food processing operation	2	4	5	<b>5</b>
28645	Implement and monitor health and safety and emergency procedures in a primary products food processing operation	3	4	5	<b>5</b>
28625	Monitor sustainable environmental practices in a primary products food processing operation	2	4	5	<b>5</b>
28631	Implement food safety requirements in a primary products food processing operation	2	4	5	<b>5</b>
28620	Monitor the implementation of a quality system in a primary industry operation	2	4	5	<b>5</b>
20012	Operate pumping or powder transport equipment in a dairy processing operation	5	4	5	<b>5</b>
21136	Operate a process control interface in a dairy processing operation	3	4	5	<b>5</b>
20002	Carry out a dairy product holding and storage process in a dairy processing operation	5	4	5	<b>5</b>
28949	Identify and contribute to continuous improvement in a dairy processing operation	1	4	10	<b>10</b>
20005	Operate a heat treatment process in a dairy processing operation	4	4	5	<b>5</b>
28632	Carry out automated clean-in-place (CIP) processes in a primary products food processing operation	1	4	5	<b>5</b>
28661	Demonstrate knowledge of an automated clean-in-place (CIP) process in a primary products food processing operation	1	4	10	<b>10</b>

## Level 4 Elective - Milk Protein Strand

Select only **one** of the contexts

Unit No.	Unit Title	Version	Level	Credits	Selected
<b>Casein - Dry</b>					
20003	Carry out a drying process in a dairy processing operation	4	4	5	
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	4	5	

<b>Casein - Wet</b>					
19996	Carry out a centrifugal separation process to separate milk components	4	4	5	
28609	Carry out a wet-side casein process in a dairy processing operation	1	4	5	
<b>Whey</b>					
19996	Carry out a centrifugal separation process to separate milk components	4	4	5	
20008	Carry out a membrane separation process to separate milk components	4	4	5	
<b>Lactose</b>					
21799	Operate a lactose milling process in a dairy processing operation	3	4	5	
21800	Operate a lactose evaporation, crystallisation and decanting process in a dairy processing operation	2	4	5	
<b>Ethanol</b>					
28604	Operate an ethanol process in a dairy processing operation	1	4	5	
31929	Describe ethanol distillation principles, equipment, and control and protection systems in a dairy processing workplace	1	4	5	
31977	Carry out and monitor a centrifugal separation process in an ethanol manufacturing operation	1	4	5	
<b>Level 4 Credit Summary</b>					<b>Selected</b>
				Total Credits from Compulsory	<b>80</b>
				Total Credits from Elective	
<b>Total Qualification Credits (no more than 95 credits)</b>				<b>90</b>	