<table>
<thead>
<tr>
<th>Title</th>
<th>Describe the composition and contribution of feed nutrients used for pigs, and formulate diets for pigs</th>
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<tbody>
<tr>
<td>Level</td>
<td>5</td>
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<td>Credits</td>
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**Purpose**

This unit standard is for people who wish to specialise in pork production unit management.

People credited with this unit standard are able to: describe the contribution of feed nutrients to pig growth and performance, ingredients used in pig feeds, and digestibility of feeds; describe cost effective nutrient requirements for pigs; and formulate cost effective diets for pigs.

**Classification**

Pork Production > Pig Health and Nutrition

**Available grade**

Achieved

**Guidance Information**

1. Legislation relevant to this unit standard includes but is not limited to the Health and Safety in Employment Act 1992.


3. Industry Text
   

4. Definitions
   
   Cost effective – diets that meet the nutrient requirements of the pig, and which are as financially economical as possible.
   
   Pork production unit – collective term for several pork production sections. For example, a farrowing section, a grower section, and a dry sow section together make up a pork production unit.

**Outcomes and performance criteria**

**Outcome 1**

Describe the contribution of feed nutrients to pig growth and performance, ingredients used in pig feeds, and digestibility of feeds.
Performance criteria

1.1 Feed nutrients are described in terms of their contribution to pig growth and performance.

Range energy, protein, vitamins, minerals, water.

1.2 Pig feed ingredients are described in terms of their nutrient composition and availability as a nutrient.

Range ingredients may include but are not limited to – barley, wheat, maize, meat and bone, blood meal, skim milk powder, whole milk powder, fats, oil, soya meal, fishmeal, peas, synthetic amino acids, limestone, salt, triticale.

1.3 Pig feed ingredients are described in terms of their digestibility by pigs.

Range ingredients may include but are not limited to – barley, wheat, maize, meat and bone, blood meal, skim milk powder, whole milk powder, fats, oil, soya meal, fishmeal, peas, synthetic amino acids, limestone, salt, triticale.

1.4 Pig feed ingredients are assessed in terms of the presence of anti-nutritional factors in accordance with industry text.

Range ingredients may include but are not limited to – barley, wheat, maize, triticale, flava beans, copra; anti-nutritional factors may include but are not limited to – mycotoxins, tannins, trypsin inhibitors; evidence is required for at least three ingredients.

Outcome 2

Describe cost effective nutrient requirements of pigs.

Range gilts, lactating sows, mating sows, sows during gestation, boars, piglets, weaners, growers, dry sows.

Performance criteria

2.1 Cost effective nutrient requirements for pigs are described in terms of pig factors, feeding factors, and production objectives.

Range nutrients – energy, protein, vitamins, minerals, water; pig factors related to energy – genotype, gender, body fat; pig factors related to protein – levels and balance of amino acids, protein deposition rates, age effects, genotype, gender; feeding factors – growth rate requirements; method of feeding – ad libitum; production objectives include but are not limited to – lean meat production.
Outcome 3
Formulate cost effective diets for pigs.

Range weaner, grower, dry sow, gilts, lactating sows, mating sows, sows during gestation, boars, piglets.

Performance criteria

3.1 Minimum daily nutrient requirements are determined and expressed on a per kilogram of feed per day basis.

Range energy, crude protein, amino acids, minerals.

3.2 Feed ingredients are evaluated for nutritional composition and selected for their contribution to pigs’ daily nutrient requirements and absence of anti-nutritional factors.

Range barley, wheat, maize, meat and bone meal, blood meal, fishmeal, soya meal, fat, limestone, skim milk powder.

3.3 Commonly available feed by-products are evaluated for nutritional composition and selected for their contribution to pigs’ daily nutrient requirements.

Range may include but is not limited to – whey, bread, biscuits, cheese; evidence is required for at least three.

3.4 Balanced and cost effective diets are formulated in accordance with pig nutrient requirements.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

<table>
<thead>
<tr>
<th>Process</th>
<th>Version</th>
<th>Date</th>
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<tbody>
<tr>
<td>Registration</td>
<td>1</td>
<td>19 March 2010</td>
<td>31 December 2023</td>
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<tr>
<td>Review</td>
<td>2</td>
<td>24 June 2021</td>
<td>31 December 2023</td>
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Consent and Moderation Requirements (CMR) reference 0052
This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.