

90921



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

1

SUPERVISOR'S USE ONLY

Level 1 Agricultural and Horticultural Science, 2013

90921 Demonstrate knowledge of livestock management practices

9.30 am Tuesday 19 November 2013

Credits: Five

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate knowledge of livestock management practices.	Demonstrate in-depth knowledge of livestock management practices.	Demonstrate comprehensive knowledge of livestock management practices.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–8 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

TOTAL

ASSESSOR'S USE ONLY

You are advised to spend 60 minutes answering the questions in this booklet.

QUESTION ONE: CATTLE HEALTH

Dairy cows in a milking shed



Mastitis is a highly infectious bacterial infection that can occur in the udders of dairy cows. Describe the symptoms farmers are looking for when monitoring herds for mastitis infection.

Use the table below to describe THREE actions that are taken by shed workers to prevent infected cows from passing the disease to other cows. For each of the actions taken, explain why that action is necessary.

Description of the action	Explanation of the action
Action (1)	
Action (2)	
Action (3)	

QUESTION TWO: FEED MANAGEMENT**Sheep grazing in a paddock**

The feed requirements of sheep vary through different stages of production. Describe THREE ways in which a ewe's feed requirements vary from mating through to lactation. Explain why the feed requirements vary.

Non-ruminant animals, such as pigs, are often given supplementary feeds. Three types of feed are shown in Table 1 below.

Table 1 Feed analysis

Feed type	Fibre content	Palatability	Protein %	Digestibility	Dry matter %
Barley	high	low	13	low	89
Soybean meal	low	high	50	high	89
Canola meal	high	low	40	high	90

Use the table to select the best feed for weaned pigs. Justify your selection by comparing and contrasting it with the other feeds.

In your answer, you could consider:

- the effect on production
- the stage of development of the pig
- parts of the digestive system.

Selected feed type: _____



QUESTION THREE: DEER FARMING**Grazing deer**

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Deer farm profits are influenced by successful breeding. Describe how a farmer would detect that a doe is "on heat".

A gene controls the tenderness of venison meat.

Explain how identifying young deer with the tenderness gene (T) can improve the quality of production. You may use the Punnett square below to illustrate your answer.

Breeders can either buy in stags from commercial breeders or use a stag they have bred themselves.

Justify why a deer breeder would buy stags from a specialist stud farm rather than use stags they have bred on their own farm.

In your answer, you could consider:

- aspects of genetics
- production outcome.

