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## Level 1 Agricultural and Horticultural Science, 2016

### 90921 Demonstrate knowledge of livestock management practices

2.00 p.m. Monday 14 November 2016  
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

**QUESTION ONE: DAIRY COWS**

Artificial Insemination (AI) is a common management practice on New Zealand dairy farms.

- (a) Describe the actions taken for the collection **and** storage of semen, and explain why each action should be carried out in the way you have described.

Action	Reason for action

- (b) Explain the advantages to the dairy farmer of having their cows artificially inseminated.

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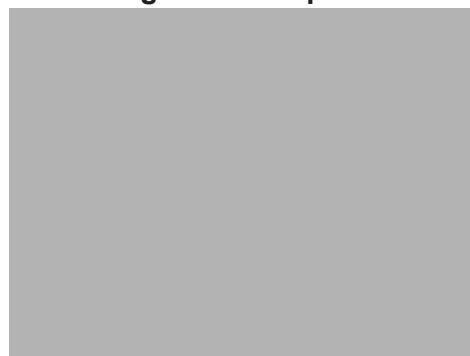
Feed pads for feeding stock are becoming more common on New Zealand dairy farms.

**Feed pad**



Source: <http://www.agandindustrial.co.nz/page/>

**Feeding out in the paddock**



Source: <http://www.hustlerequipment.co.nz/>



**QUESTION TWO: DEER**

National Animal Identification and Tracing (NAIT) electronic ear tags have been compulsory to use on deer since 2013, and all deer over the age of six months must have NAIT ear tags from March this year (2016) onwards.



Source: <http://leaderproducts.co.nz/shop/>



<http://dbijapkm3o6fj.cloudfront.net/resources/>

(a) Explain why NAIT ear tags are used in New Zealand.

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Internal parasites such as *Ostertagia* (gut worms) and *Dictyocaulus eckerti* (lung worms), and external parasites such as ticks and lice, can affect deer.

(b) Describe THREE ways in which parasites can affect animal production.

(1) \_\_\_\_\_

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(2) \_\_\_\_\_

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(3) \_\_\_\_\_

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**QUESTION THREE: SHEEP**

Sheep and pigs have different digestive systems.

- (a) Describe the key differences between these digestive systems, and explain how they influence the feed requirements of sheep and pigs.

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- (b) Describe THREE actions taken to vaccinate sheep, and explain why each action should be carried out in the way you have described.

Action	Reason for action

(c) A shortage of pasture to flush ewes can have a negative effect on lambing percentages. When there is a shortage of pasture, a farmer can either buy in supplementary feed to help flushing, or sell some stock to reduce stocking rates. Select the better management practice for increasing lambing percentages during a pasture shortage.

Selected management practice: \_\_\_\_\_

Justify your selection by comparing and contrasting it with the other method.

In your answer, consider:

- production rates
- financial costs and returns
- short-term and long-term effects.

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