

91294



# Level 2 Agricultural and Horticultural Science, 2012 91294 Demonstrate understanding of how NZ commercial management practices influence livestock growth and development

### 2.00 pm Monday 26 November 2012 Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of how management practices influence livestock growth and development in commercial production in New Zealand.	Demonstrate in-depth understanding of how management practices influence livestock growth and development in commercial production in New Zealand.	Demonstrate comprehensive understanding of how management practices influence livestock growth and development in commercial production in New Zealand.

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	

© New Zealand Qualifications Authority, 2012. All rights reserved.

No part of this publication may be reproduced by any means without the prior permission of the New Zealand Qualifications Authority.

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

# QUESTION ONE: BREED SELECTION



Beef cow and her calf on a high country property

(a) Explain how the breed of cow shown in the photograph above, when crossed with an Angus bull, will produce a well-developed calf at weaning.

ASSESSOR'S USE ONLY

- (b) Justify the use of this breed of cow and mating to Angus bulls on this high country property, rather than using breeds such as a Charolais and Simmental. In your answer, consider the:
  - maturity rates of the breeds
  - variable grazing conditions
  - hardiness of the Angus compared with the Charolais and Simmental breeds.

ASSESSOR'S USE ONLY

# QUESTION TWO: PRE-SLAUGHTER MANAGEMENT PRACTICES

Use the information in the box below and your own knowledge to answer all parts of this question.

Farmer Smith runs Romney ewes which are mated to Suffolk rams. The property has experienced a mild winter with excellent spring and summer rainfall, resulting in a plentiful supply of quality feed.

The farmer took the following actions:

- He did not castrate any ram lambs at tailing time.
- Instead of weaning the lambs at two months of age, he decided to leave all lambs with their mothers to control the excess feed supply.
- In late summer he drafted for slaughter a truck-load of the heaviest lambs every month.

It has been suggested that the drafting management practice should be changed.

(a) Explain how non-castration would influence lamb growth and development on this property.

(b) Explain how the **weaning** practice would influence lamb growth and development on this property.

	Justify the use of an existing or changed management practice in terms of the ability of the practice to provide the highest carcass price for the lambs sent to slaughter.

Explain how you would **change** the drafting practice to one that would best suit lamb growth and development on this property.

ASSESSOR'S USE ONLY

(C)

## QUESTION THREE: PASTURE FEEDING

Feed quality, as illustrated in the photographs below, is the most important factor affecting livestock growth and development.



The following advice was given to farmers rearing young stock such as deer and lambs on pasture:

- 1. Pastures should be topped in late November/early December.
- 2. Use pasture regrowth from silage made in November/December.
- 3. When rotationally grazing, move livestock when only 30–50% of the available pasture has been eaten.

Select ONE item of advice from the list above.

Selected item of advice (use number from list):

(a) Explain how this advice would benefit the growth and development of deer or lambs.

6

ASSESSOR'S USE ONLY

Hinds give birth to fawns in the November to December period.

Select the item of pasture management advice from the list on page 6 that you consider to be the **most** important to a farmer who breeds and raises **deer**.

Selected item of advice (use number from list):

- (b) Justify your selected pasture management practice over ONE of the other practices by comparing:
  - the practicalities of use (ease of management)
  - ability to maximise growth rates of young deer.

