

91294



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

2

SUPERVISOR'S USE ONLY

Level 2 Agricultural and Horticultural Science, 2013
91294 Demonstrate understanding of how NZ commercial management practices influence livestock growth and development

2.00 pm Friday 29 November 2013
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

ASSESSOR'S USE ONLY

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

QUESTION ONE: LAMB PRODUCTION

The health of the lambs is important during their growth and development. Most farmers vaccinate their lambs to prevent diseases such as scabby mouth.

- (a) Explain how vaccinating lambs affects their growth and development for meat production.

QUESTION TWO: PASTURE UTILISATION IN BULL BEEF PRODUCTIONASSESSOR'S
USE ONLY

Most bull beef farmers use pasture as their main source of feed to increase the liveweight of their bulls. Pasture monitoring and topping are two management practices that improve the quality and utilisation of the pasture.

- (a) Explain how the use of ONE of these management practices (pasture monitoring *OR* topping) improves the growth and development of the bulls.

Stocking rate influences livestock growth and development. The table below shows the effect of stocking rate on production and profit for a bull farm.

Table 1 Effect of stocking rate on production and profit

Stocking Rate (bulls/ha)	2.5	3.5	4.5
End liveweight (kg)	530	495	455
Sale price (per bull)	\$1019	\$949	\$874
Profit (per bull)	\$579	\$509	\$434
Profit (per ha)	\$1447	\$1781	\$1953
Pasture utilisation (%)	59	74	81
Liveweight gain (kg/ha)	825	1033	1150

Using the information in the table above, select the stocking rate that you consider will optimise profit for the bull farmer.

Selected stocking rate: _____

(b) Justify your selected stocking rate over ONE of the other stocking rates by comparing pasture utilisation and profit to the farmer.

In your answer, consider:

- how the stocking rate would influence the growth and development of bulls
- efficient pasture utilisation
- financial returns to the farmer.

QUESTION THREE: BROILER PRODUCTION

In commercial broiler production for chicken meat, the chickens are kept in environmentally controlled sheds.

Broiler production shed



- (a) Explain how environmentally controlled sheds would influence the growth, development, and yield of broiler chickens.
