

90921



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SUPERVISOR'S USE ONLY

## Level 1 Agricultural and Horticultural Science, 2019

### 90921 Demonstrate knowledge of livestock management practices

9.30 a.m. Thursday 28 November 2019  
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 2–12 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

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### QUESTION ONE: SHEEP

Sheep can be flushed prior to mating.

(a) Describe what flushing is, and explain how it affects sheep ovulation.

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Ewes are usually scanned to identify those carrying twins. Farmers will then put them in a paddock with good quality pasture and a lower stocking rate (less sheep per hectare).

(b) Explain why the feed quality and stocking rate need to be different for ewes carrying twins, compared to ewes carrying single lambs.

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Flystrike is caused by blowflies that lay their eggs on sheep. In order to prevent it, farmers use chemical insecticide (dipping/jetting) and crutching (dagging).



Blowfly

(c) Justify how a combination of these two management practices (dipping and dagging) prevents flystrike in sheep.

In your answer consider:

- how each management practice is carried out
- how each practice affects the health and production of sheep.

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**QUESTION TWO: DEER**

Drenching is a management practice to help maintain healthy deer. Pour-on drenches are used to prevent internal parasites, such as worms, in deer.

- (a) Describe THREE actions, or steps, to carry out when drenching deer, and explain why each action is done in that way.

Description of action	Reason for action

- (b) Explain why it is important that deer do not have worms.

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A farmer is breeding deer for the velvet market, and is looking to purchase stag semen to inseminate the hinds. The farmer uses the Deer Select database to analyse the estimated breeding values of two sires.



Herd of stags

Statistics for the offspring of two different stags (sire)					
Sire	Average birth weight (kg)	Average weaning weight (kg)	Average carcass weight at 12 months (kg)	Average antler growth rate (cm/day)	2-year-old velvet weight (kg)
A	12	50	48	2.2	3.0
B	15	55	52	1.7	2.6

- (c) Using the information in the table above, select the better sire (stag) to breed with the hinds, and justify your selection by comparing your choice with the other sire.

Selected sire: \_\_\_\_\_

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**QUESTION THREE: CATTLE**

When vaccinating cattle, there is usually a withholding period.

- (a) Describe what a withholding period is.

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The National Animal Identification and Tracing (NAIT) ear tag system became compulsory for cattle in New Zealand in 2012.



NAIT Ear tag

*Mycoplasma bovis* is a disease that has had a major impact on cattle in New Zealand.

- (b) Explain how the information tracked by NAIT can be used to improve production and prevent the spread of diseases such as *M. bovis*.

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**Extra space if required.**  
**Write the question number(s) if applicable.**

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USE ONLY

QUESTION  
NUMBER

90921

#### Acknowledgements

Material from the following sources has been adapted for use in this examination:

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Image: [https://www.agric.wa.gov.au/sites/gateway/files/styles/page\\_featured\\_image/public/1126012\\_Blowfly.jpg?itok=gqdKhbCs&c=018ab4b1ce7f3feddc084695fe5b368e](https://www.agric.wa.gov.au/sites/gateway/files/styles/page_featured_image/public/1126012_Blowfly.jpg?itok=gqdKhbCs&c=018ab4b1ce7f3feddc084695fe5b368e)

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