

**INSTITUTE OF LAND AND FOOD RESOURCES  
THE UNIVERSITY OF MELBOURNE**

**208-264 Livestock Management**

**EXAM**

Semester 2, 2003

Duration: 2.5h hours

Reading time: 15 minutes

**Value**

The exam is worth 120 marks, making up 40% of your final mark for this subject.

Each question is worth 20 marks.

You should aim to spend 25 minutes on each question.

**Instructions**

Answer six questions:

- at least one question from *each part* of Section A (3 questions)
- at least one question from Section B (1 question)
- two other questions from either section (2 questions)

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**SECTION A**

**Answer at least one question from each part**

**Part 1 – Beef**

1. Discuss the strategies that should be employed to manage cows for high calving percentage, compact calving span and optimal calving interval. In your answer consider:

- why are these things desirable in the first place?
- what benchmark values do you place on “high”, “compact” and “optimal”
- list and briefly discuss the management strategies needed to achieve these objectives

2. Describe the production system and calendar of events on a property which is devoted to beef cattle production in Western districts of Victoria . Joining commences in November and the property is a “beef only” enterprise. **Also**, discuss the advantages and disadvantages of an autumn vs a spring calving in this enterprise. In your answer consider:

- what is the pasture production pattern in the Western Districts
- what products does your enterprise produce
- draw up a calendar / timeline with breeding, health, calf management, heifer and cow management, marketing and other aspects of management
- make up another calendar for autumn calving and discuss the advantages and disadvantages of each calving time in terms of management and marketing

3. Discuss the impact on beef production systems of changes in the market place due to EITHER live cattle exports OR the Japanese Ox trade. In your answer consider:

- the target market and the product description – carcass weight range, fatness, any other important characteristics
- the change in demand due to this market
- effects on calendar of events, types of animals turned off, use of different genotypes etc.

## **Part 2 - Sheep**

4. Both the wool and prime lamb industries have progeny test programs.

- describe either the wool industry OR the prime lamb industry progeny test program
- for your chosen program discuss its effectiveness at the level of a commercial farm
- explain the advantages of progeny testing
- what is meant by EBV

5. Drench resistance is a real problem in the sheep industry. Explain:

- explain what is meant by drench resistance, and how it can be prevented
- describe an integrated worm control program

6. Sheep yards (not including the shearing shed) can be analysed using a “systems” approach.

- how can the performance of sheep yards be measured?
- what are the elements in the sheep yard system and how do they influence the performance ease of sheep handling?
- what are the behavioural principles that should guide the design of sheep handling facilities?

### **Part 3 – Dairy**

7. The lactation curve of the typical dairy cow has a specific shape. Draw a typical pasture growth curve and superimpose over this a typical seasonal herds lactation curve. Label carefully the axis. In descriptive text:

- explain the shape, height, fall off rate and length of the lactation curve
- explain how nutrition and body condition score can be used to change the shape of this curve
- how can the lactation curve be modified to more closely match the nutrition available to the herd from pasture?

8. Urine patches in pasture are a sign of nutritional imbalance in the dairy herd.

- which nutrient is in excess when these patches form?
- what is the mechanism within the cow that causes urine patches to form?
- how can management be changed to prevent wastage of this particular nutrient?

9. If a farmer increases the energy content of the herds diet, changes will occur in the milk.

- what are these changes?
- what sort of feeds would be fed to increase the energy content of the diet?

Extra marks are available if you can explain the mechanism by which the changes occur.

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## SECTION B

**Answer at least one question**

**Part 4 – Poultry – 1 question (20 marks)**

10. The chicken industry is vertically integrated. What does this mean? Outline, with reference to one other animal industry, the lessons that other livestock industries can learn from the poultry industry.

**Part 5 – Pigs – 1 question (20 marks)**

11. What is meant by an all in/all out housing system. Give examples and explain the benefits.

**Part 6 - Other Animal Industries – 1 question (20 marks)**

12. There are very low infrastructure requirements for alpacas. Discuss these requirements in relation to the biology and management of alpacas.