



Faculty of Animal Science & Export Agriculture
Uva Wellassa University of Sri Lanka

B.ASc. Degree Programme
Year II Semester II
End Semester Examination - June 2008

ANS 2202-3 Cattle and Buffalo Management and Breeding

Essay Questions (Section II)

Instructions

Answer all questions in Section II in booklets provided.

No. of questions : Three (03)

No. of pages : Two (02)

Time : One hour and thirty minutes (1 hr 30 min)

Total marks allocated : 60%

Index No:

01. A farmer in your area has started dairy farming recently and seeks your help to improve his knowledge on that field. At the moment he has one pregnant heifer and the calving date of the animal is scheduled to be in next week. Write an essay on how you are going to advice this farmer on following management aspects.

- Calving
- Care of new born calf at birth
- Feeding of new born calf and mother
- Housing for new born calf
- Weaning of calf

(100 marks)

02. A farmer in Kurunegala area seeks your advice to prepare a ration for his dairy cow to obtain the maximum milk production. Assume that the pregnant cow weighing 350 kg produces 7 liters of milk consisting 3.8% fat daily. Farmer has access to two (02) common forages; Guinea grass (one month old) and Gliricidia, and few concentrate feeds; Fish meal, Meat meal, Coconut poonac, UMMB and Soya bean meal.

- i) Determine the TDN and DCP requirements of the cow using the information in the table provided. (50 marks)
- ii) Prepare an **economical** ration to meet the daily nutrient requirements of the animal using available feed resources. (50 marks)

**Information about daily nutrient (TDN and DCP) requirements and nutritive value of common ruminant feeds are given in page No.02.

03. Write an essay on "Problems associated with Buffalo Farming". (100 marks)

Daily nutrient requirements (g TDN & g DCP) for a lactating cow weighing 300 kg (maintenance, milk production and gestation)

Milk (l/d)	Milk with 3.0-3.4%		Milk with 3.5-4.0% fat		Milk with 4.1-4.6% fat	
	TDN	DCP	TDN	DCP	TDN	DCP
1	3990	510	4000	515	4030	520
2	4280	560	4300	570	4360	580
3	4570	610	4600	625	4690	640
4	4860	660	4900	680	5020	700
5	5150	710	5200	735	5350	760
6	5440	760	5500	790	5680	820
7	5730	810	5800	845	6010	880
8	6020	860	6100	900	6340	940

10	6600	960	6700	1010	7000	1060
12	7180	1060	7300	1120	7660	1180
14	7760	1160	7900	1230	8320	1300

(Source: Ibrahim, 1988)

Adjustment for different body weights:

For every 50 kg difference in body weight, add or subtract 300g TDN and 25g DCP

Nutritive value of few commonly available ruminant feeds in Sri Lanka (g/kg fresh weight)

Type of feed	DM	TDN	DCP
Guinea (Before flowering)	210	116	19
Guinea (After flowering)	301	105	09
Natural grass	250	100	25
Ipil ipil	227	154	50
Gliricidia	226	142	50
Wild Sunflower	153	81	30
Jak leaves	314	151	28
Rice Straw	900	300	00
Rice bran	902	343	72
Fish meal	864	622	440
Soya bean meal	862	733	371
Coconut poonac	923	683	148
UMMB	900	764	46
Meat meal	932	764	447

[End of Section II]

