

Leaving Certificate Higher Level Sheep Production Questions

2011

Q.3 Option 1

- (b) Describe **four** qualities a farmer would look for when selecting replacement heifers for a dairy herd.
- (c) Food Conversion Efficiency (FCE) decreases with age in farm animals.
- (i) Explain the underlined term **and** give an example of FCE for a **named** farm animal.
- (ii) Explain why FCE decreases with age in an animal.
- (iii) Explain how a farmer might improve the FCE of his herd.

Q.3 Option2

- (b) (i) Explain why a young animal should receive colostrum in the first day of life.
- (ii) List three benefits of colostrum to the young animal.

[2011Marking Scheme](#)

2010

5. (a) Discuss the role of the following in sheep production:
- (i) a raddling harness
- (ii) footrot
8. (a) In the context of fat lamb production, discuss the statement “the ewe looks after quantity while the ram looks after quality”.

[2010Marking Scheme](#)

2009

1. (f) Explain the connection between shortening day length and the onset of oestrous in sheep.

Option Two:

3. (b) Discuss the factors which contribute to ewe and lamb mortality.

[2009Marking Scheme](#)

2008

6. (c) List **four** advantages of in-wintering ewes
- (d) Explain the technique known as flushing in sheep production and give **two** of its advantages.

[2008Marking Scheme](#)

2007

Option One

3. (a) The following table outlines the constituents of a ration that is fed as a supplement to hay or silage to a pregnant ewe.

Constituent	Percentage of Ration by Weight
Beet Pulp	40%
Rolled Barley	40%

Soya Bean Meal	20%
Mineral Mixture	

- (i) Give reasons, in each case, for the inclusion of the four constituents in the diet of a pregnant animal.
- (ii) What would be the consequences if the ration were to be composed of 40% soya bean meal and 20% rolled barley?
- (b) Advise a sheep farmer, concerning the feeding of the ration in the table above to pregnant ewes, under the following headings:
- (i) when to start feeding the ration,
- (ii) the daily feeding rates,
- (iii) the role of scanning ewes in determining the daily feeding rate,
- (iv) the consequence for the pregnancy if the above ration is not fed.
- (c) Explain **four** advantages of winter housing for pregnant ewes.

[2007Marking_Scheme](#)

2006

1. (i) Answer the following in the context of sheep:
- (i) What is the approximate weight (in kg) of a lamb at birth?
- (ii) What is the length (in days) of the oestrus cycle of a ewe?
- (iii) What is the gestation period (in months) of a ewe?
8. (b) (i) Explain the technique known as “flushing”, which is used in sheep production.
- (ii) Explain the advantages of each of the following in the management of a flock of sheep:
1. Synchronised breeding
 2. Breeding out of season.
- (iii) Describe the feeding of ewes during the final 6-8 weeks of pregnancy and give reasons for the changes in feeding regime.

[2006Marking_Scheme](#)

2005

6. (b) Describe the management of bonhams **or** lambs from birth to weaning.
8. (a) (iii) Explain the breeding strategy used in lowland sheep production system of your choice.

[2005Marking_Scheme](#)

2004

1. (h) (i) State **one** factor that determines wool quality.
- (ii) What is the approximate weight of a wool fleece?

[2004Marking_Scheme](#)

2003

Option Two

3. (c) Write brief note on ... the following:
(1) The feeding programme of a lamb from birth to weaning.

[2003Marking_Scheme](#)

2002

Option One

3. (c) Explain why cattle and sheep grazing together have better growth rates than when grazed separately.
8. (a) Explain why the normal diet of a pig differs from that of a sheep in quantity, quality and variety of food nutrients.

[2002Marking_Scheme](#)

2001

5. (a) Describe a feeding regime for lambs from birth to slaughter at about four months.
- (b) For a named farmed species compare the disease pressures in animals raised indoors and outdoors.

[2001Marking_Scheme](#)

2000

Option Two

3. (a) Write notes on ... the following:
(iii) caring for a newborn lamb.
5. (c) Explain how management and environmental factors may influence the growth and development of pigs **or** sheep in an enterprise with which you are familiar.

1998

Option One

3. (a) Write notes on ... the following:
(i) Flushing in a sheep breeding enterprise.
6. (a) Describe a system for inwintering of ewes under each of the following headings:
(i) Housing
(ii) Disease control.
- (b) Describe the feeding programme for a lamb from birth to weaning stage.
- (c) Mention the principal factors which contribute to a high mortality rate in a sheep-rearing enterprise.
9. Give a scientific explanation for ... the following:
(b) Land drainage of marshy ground adjacent to a dairy or sheep farm enterprise.

1997

5. (a) Describe the management practices which contribute to a low level of ewe and lamb mortality.
- (b) Describe how synchronisation of oestrus is carried out in a sheep breeding enterprise.
Briefly describe the advantages of synchronisation.

1996

6. In relation to a named farm enterprise with which you are familiar:-
- (a) describe the nature and extent of the production unit.
- (b) outline a strategy you would recommend for the following:-
- (i) Management;
 - (ii) Feeding.
8. (a) Explain how a farmer should manage the internal environment of a housing unit to optimise the growth rate of pigs or sheep in an enterprise.

2011 Marking Scheme

Q.3 Option 1

C. i. FCE; how efficiently an animal converts food consumed into weight gained/food to flesh/can be expressed as ratio e.g. pigs 1.75-3.25:1 cattle/sheep 8:1, poultry 2:1 4+ 4 Marks

ii. Body tissues develop in order/nerve-bone-muscle-fat/fat deposition increases with age/eg 24 months in cattle/depends on breed/the younger the animal the less fat it forms and more lean/fat less efficiently produced

4 Marks

iii. Improve FCE; changing high quality diet/increase concentrates/less roughage/buy in new animals/breeding/disease control/housing /high temperature for pigs 4 Marks

Q. 3 Option 2:

B. i Colostrum; /intestine changes after 24 hours/antibodies absorbed 2 Marks

(ii) Nutritious/laxative/good start in life/antibodies/immunity/warming/easily digested 8+3+3 Marks

2010 Marking Scheme

5. (a) RADDLING HARNESS

detects mating behaviour in rams/ predicts lambing date/ allows farmer to establish which ewes have joined with the ram/ repeated (missed) useful for culling ewes/ identifying infertile rams (if all ewes show 2-3 different raddle colours)/ colour changed every 17 days (or for new cycle)

4m + 4m

FOOTROT

bacterial disease/ contagious/ pain/ lameness/ reduced feed intake/ loss of condition/ lowered fertility in rams/ copper sulphate/ formalin/ footbath/ hoof paring/ Clostridial sp/ wet soils/ dirty housing/ antibiotics/ vaccinate/ leads to cull (loss)

4m + 4m

8. (a) EWE

breeds in ewe should be prolific/ Belclare improver or halfbred or Greyface or Borris or Blackface [*not Galwey*] ewe/ hybrids selected for litter size/ flushing of ewes increases no. of lambs/ mothering qualities are n.b./ weaning percentage (no. of lambs weaned per number joined with with ram x 100 or reproductive efficiency.

RAM

ram is half the flock/ Suffolk or Texel/ terminal sires/ growth rate/ carcass conformation/ leanness/ killing-out % all depend on ram breed/ pure-bred or pedigree

4 (6m)

At least one point from either

2009 Marking Scheme

1. (f) Sheep are seasonal breeders/ in autumn **or** winter **or** August-December/
declining light levels/ act on pituitary complex/ hypothalamus/ pineal body/
stimulate FSH hormone/ stimulate ovaries/ produce oestrogen/ to cycle 4m+3m+3m

Option Two

3. (b) No colostrum/ failure to vaccinate/ hypothermia/ chill/ prolapse/ twin-lamb disease/
not scanning ewe/ predators/ no steaming-up/ not creep feeding/ hypocalcaemia/
multiple births/ lambing outdoors/ lack of supervision. Any four 7m + 3 (3m)

2008 Marking Scheme

6. (c) ensures proper feeding before lambing/ easier to observe or manage at lambing/
multiple lambs can be transferred to new mothers/ lambs can be managed to
ensure suckling/ lower mortality/ better life for farmer/ avoid predation/ prevent
poaching/ prevent chill/ early grass next spring/ disease control 4 (3m)
- (d) low plane of nutrition (high stocking rate) 3m
low stocking rate/ rich pasture/ 2 to 4 weeks before mating/ continue 3-4 wks 3m
Advantages:- more eggs released/ more regular heat periods/ higher
conception rates/ better embryo implantation 2 (3m)

2007 Marking Scheme

Option One

3. (a) (i) Beet pulp provides energy 3m
Rolled barley provides carbohydrate or energy source 3m
Soya bean meal provides protein or protein low in hay and silage or
concentrates fed as rumen size restricted or prevent twin lamb disease 3m
Minerals prevent hypocalcaemia (lambing sickness) or swayback 3m
(ii) extra cost/ waste of protein/ ewes too big/ lambs too big (lambing difficulty) 2 (3m)
- (b) (i) 6-8 weeks before lambing 3m
(ii) start with 100-200g/day/ increase by 100g each week/ to reach 500-750g
at lambing 2 (3m)
(iii) to determine presence of live lamb(s) or of twins (or triplets) 3m
(iv) poor health of ewe/ low milk production/ under-sized lambs/ pregnancy
toxaemia (twin lamb disease)/ hypocalcaemia 2 (3m)
- (c) pastures are rested/ poaching prevented/ earlier grass growth encouraged/
facilitate management at lambing/ increase lamb survival rates/ to avoid
“chill” in lambs/ avoid predation/ easier to monitor 4 (3m)

2006 Marking Scheme

1. (i) (i) 3-5
(ii) 15-19
(iii) 5 4m+3m+3m
8. (b) (i) ewes on bare pasture after weaning or high stocking rate/ on good pasture
a month before mating or low stocking rate 4m+2m
more eggs released/ better conception rate/ more regular heat/ greater
chance of twins 3m
- (ii) 1. shorter mating period/ shorter lambing period/ reduced labour/ lambs
same size 3m
2. earlier lambing (for Easter market)/ higher price/ spreads labour 3m
- (iii) gradual increase in feeding of concentrates (up to 0.5kg/day or 0.7kg/day
for twins)/ steaming up 3m
most foetal growth occurs during final 6-8 weeks of pregnancy/ grass growth
is poor/ avoidance of twin lamb disease/ milk production any two 4m+2m

2005 Marking Scheme

6. (b) lambs – colostrum/ suckling of ewe/ grass/ creep feeding/ dipping of navel/
feed (hay) for development of rumen/ vaccination any four 2(3m)+ 2(6m)
8. (a) (iii) production of lambs for slaughter/ rams chosen to give fast growth rate
and good carcass quality/ Suffolk ram/ with crossbred or named ewe/
prolificacy: target is 200 lambs sold per 100 ewes mated/ achieved by
using Belclare Improver rams/ Texel ram for mid-season lamb of high
carcass quality any four 3(3m) + 1m

2004 Marking Scheme

1. (h) (i) nutritious/ breed/ health/ time of shearing any one 5m
(ii) 1-4kg (2-9lb) approx 5m

2003 Marking Scheme

Option Two

3. (c) (1) colostrum/ milk/ creep feeding of grass/ concentrates any three in correct order
3m+3m+2m

2002 Marking Scheme

Option One

3. (c) **Better growth rate mixed grazing**
close grazing habit of sheep increases tillering/ a denser sward and increase
DM production/ sheep eat the long unpalatable grass around the dung pats
which cows will not touch/ more recycling of nutrients/ nature of sheep and

8. *Diet of Pigs differs from sheep in quantity, quality & variety of food nutrients*

PIGS	SHEEP
Non-ruminant	Ruminant
Non-roughage	Roughage
Balanced ration supplied indoors-	Sheep graze outdoors – eat grass
Example of a balanced ration – higher protein (Lysine), Vit (A,D) and minerals (iron)	Grass is a complete food
Wide variety of materials in ration to make up concentrated ration	Less variety

4 (6m) (3m+3m)

2001 Marking Scheme5. (a) *Feeding regime*

feed colostrum/ ewe milk/ creep feed of meals to develop rumen/
 grass/ concentrates/ vitamins/ minerals/ silage to get to
 slaughter weight of 40kg

any four

4 (4m)

(b) *Disease Pressures*

Named Farm Species

4m

Indoor Vs. Outdoors

3 points

Any relevant points under the following headings

Environment/ Temperature/ Hygiene/ Humidity/ Stocking Rate/ Diet/ Disease

3 (4m)