



Adding value to the best ground

SAC Consulting: Poppy Frater

SAC Consulting is a division of SRUC

Leading the way in Agriculture and Rural Research, Education and Consulting

Improving the land that is improvable

EWE NUTRITION AND BODY CONDITION SCORING TIMELINE



Weaning to tupping

Get ewes fit for production.

Aim to get all ewes to target BCS 3 – 3.5.

Offer lean ewes the best grass.

1st 50 Days

Take care of the eggs & developing embryo.

Look to maintain BCS for embryo survival. Minimise stress on the ewe with no sudden changes in diet.

2nd 50 Days

Let the placenta grow and develop.

A well grown placenta = good lamb development and birthweight. Ewes that were above target BCS at tupping can lose half a BCS.

3rd 50 Days

Ensure ewes are fit for lambing.

Growing foetus and udder increases nutritional demands.

Maintaining BCS will minimise ewe metabolic problems, maximise colostrum production, lamb vigour and survival.

Early Lactation

Maximise milk production.

Total milk production is driven by high quality pasture and body condition.

Late Lactation

Maximise lamb growth.

Lamb growth driven by pasture quality as ewe milk production declines.

Wean at 90-110 days and offer lambs the best grass.

Golden 20 days

Move ewes to fresh pasture regularly. Ideally daily, for 10 days before and after tups go out to raise scanning %

Use opportunity to condition score and pull out ewes below target BCS 3 for preferential feeding.

Golden 35 days
Essential to feed to maintain BCS. Under feeding in last 35 days will cap lactation and reduce lamb vigour

Last day ewes can be expected to gain 1 condition score before tupping

Tupping date

Most ewes tupped by day 25

Embryo implantation complete by day 55

Scanning

Lambing

Peak lactation

Weaning



PASTURE ALLOCATION FOR ROTATIONAL GRAZING (for 75kg ewe)

	x Maintenance	MJME/day required	kgDM/day assuming 10 MJME grass*
Early pregnancy	1.0	11.5	1.5
Mid pregnancy	1.0	11.5	1.5

*These figures assume 20% grass wastage

		x Maintenance	MJME/day required	kgDM/day assuming 10 MJME grass*
Late pregnancy	Singles	1.3	13.0	1.8
	Twins	1.5	16.5	2.2

*These figures assume 20% grass wastage

		x Maintenance	MJME/day required	kgDM/day assuming 12 MJME grass*
Peak Lactation	Singles	2.0	22.5	2.8
	Twins	3.0	34.5	4.3

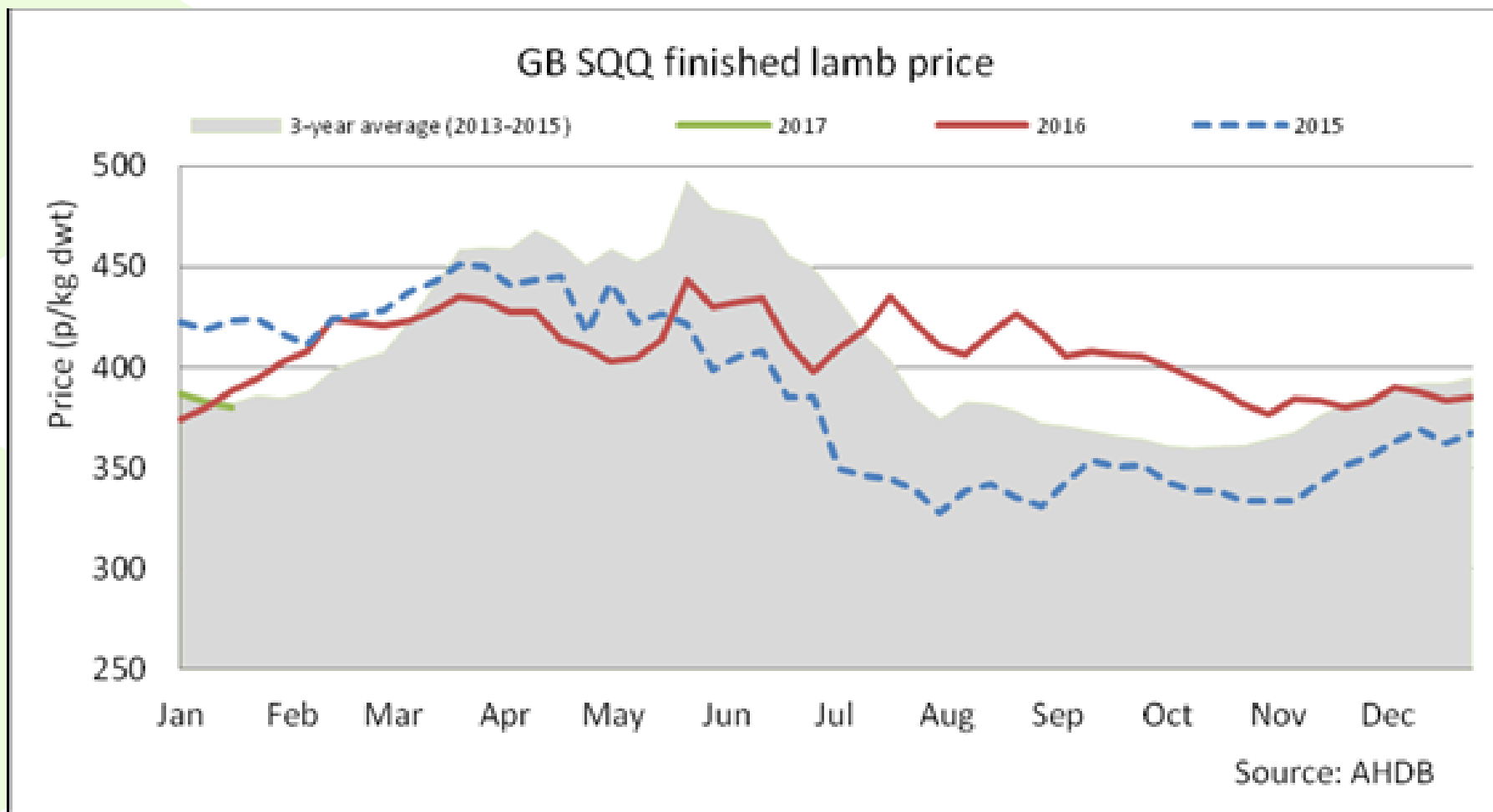
*These figures assume 20% grass wastage

These guidelines are applicable to mature ewes on a pasture based upland or lowground system. Individual ewe requirements may vary. Specific breeds and hoggs may require different management at certain stages. Internal parasites and mineral deficiencies can also affect nutritional efficiency and BCS. Scanning, lambing and peak lactation timings are approximate.

QMS would like to acknowledge Trevor Cook for his input to this publication, and John Vipond for his assistance.

For further information, visit www.qmscotland.co.uk

Why?



Three ways to improve pasture quality



In order of priority...

1. Focus on soil health
2. Rotational grazing
3. Reseed

The rotational grazing double whammy effect...

System	Annual Yield (t DM/ha)	Utilisation (%)	Usable yield (t DM/ha)	Percentage increase
Set stocking	8.5 (modest)	50	4.3	

Plus improved quality...triple whammy



Optimal Quality



Moderate Quality



Poor Quality

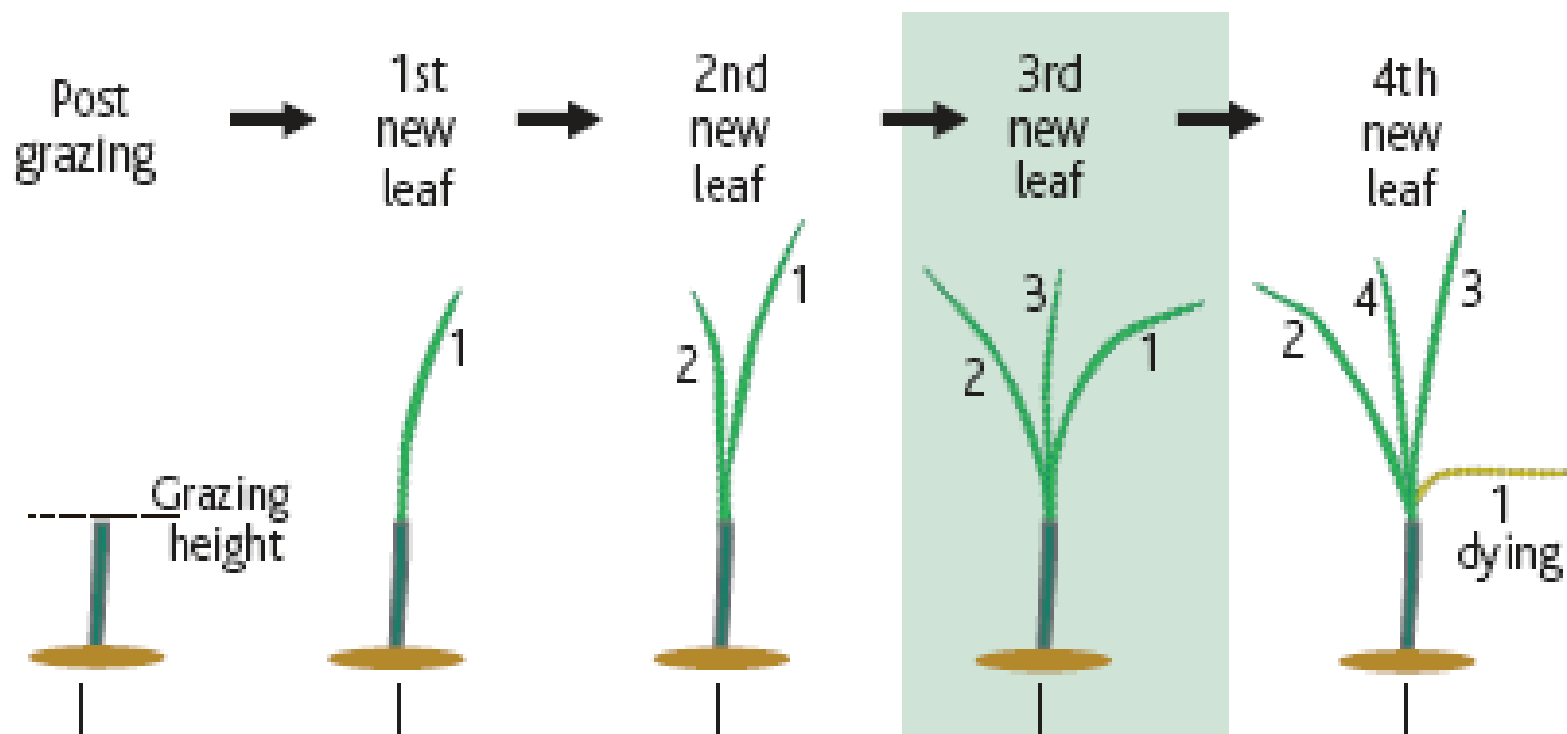
Decreasing energy value

Leaf 11.5 MJ ME/kg DM

Stems 10.5 MJ ME/kg DM

Dead leaves <8 MJ ME/kg DM

Optimising grazing timing



Timing... return to the first field

Depend on grass growth, but generally..

- Spring – 15-20 days
- Summer– 25 days
- Autumn – 30-40 days
- Winter – 90-100 days

How?

1. Calculate feed supply
2. Daily flock/herd requirements
3. $\text{Supply} \div \text{Daily requirement} = \text{days of feed available}$

Feed supply

Measure: Kilograms of Dry matter (DM)

- Sward sticks
- Plate meters

Deduct: what you want to leave behind ~1500 kg DM/ha



Daily flock requirements

A 70 kg ewe in late pregnancy requires:

$$0.02 \text{ (2\%)} \times 70 = 1.4 \text{ kgDM/head/day}$$

Flock size is 200, therefore need
280 kg DM/day

Example

8ha
DM

Now I know how many days of feed, I can set up electric-fenced paddocks:

DM

Dec

- Split field in half, move after 12 days

DM

Ava

- Split into 5 and move every 5 days

1

Allo
wei

- Split into 25 and move every day

y

ay

Divide available feed by daily allocation = 25 days

Winter Rotational Grazing









The practise

- Field selection
 - Consider soil types
 - Aspect
 - Pasture quality
- Slopes
- Accounting for poorer quality



Electric fencing options

- Power source
- Energiser
- Wire
- Posts
- No. of strands
- Voltage
- Ease of use
- Permanent vs. temporary

Electric fencing for livestock



Information compiled by Katie Brian and Dr Liz Genever,
AHDB Beef & Lamb

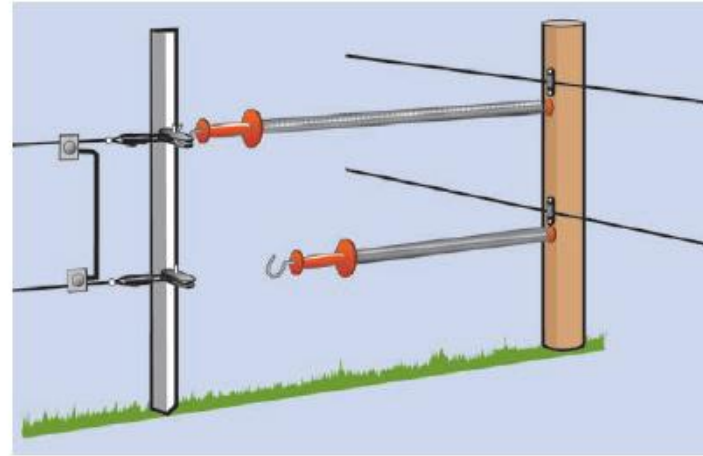


Key messages

- + Electric fencing allows stocking density to be adjusted so that grazing pressure can be controlled
- + Electric fencing is a crucial part of systems that include rotational grazing, whereby animals move around the farm in an ordered and logical way
- + Electric fencing can also be used to preclude livestock from areas that may prove dangerous or unhealthy
- + Forward planning is essential to save time and energy when it comes to erecting the electric fence
- + There are three types of electric fencing – permanent electric, off conventional and temporary electric. The purchase and erection costs of electric fencing vary significantly
- + A good electric fence system requires a combination of components that all work efficiently in tandem, including an energiser, a power source, an earth system and a conductor
- + Electric fencing requires a change in thinking compared to conventional fencing
- + Training stock can save significant time and hassle when it actually comes to putting them into fields or paddocks bounded by electric fencing

Other considerations

- Gateways
- Training animals
- Water
- Labour

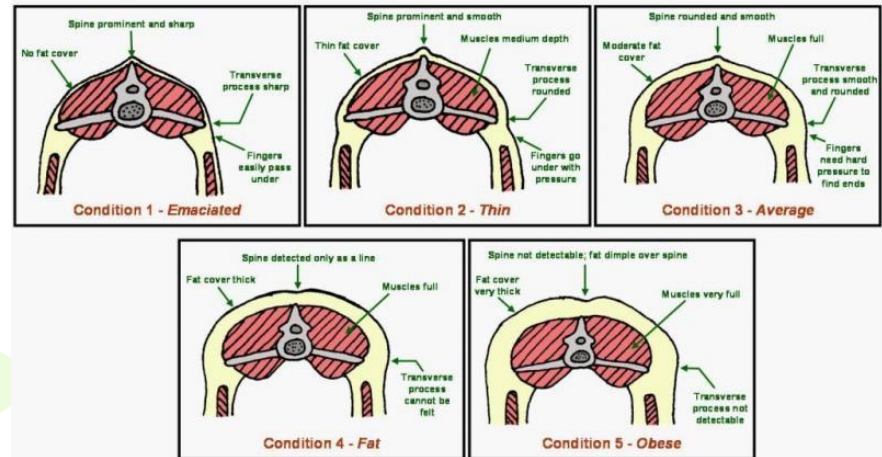


Ground truthing

- Body condition scoring
- Behaviour
- Liveweight gain
- Measure grass left behind



Body Condition Scores – Sheep/Goats



Adapted from "Body Condition Scoring of Sheep" by J.M. Thompson and H. Meyer (Oregon State University)

Summary

- Make your best land work harder
- Invest in soils first
- Then consider rotational grazing to improve grass quality and quantity