

- Series Highlights

National Advice Hub
T: 0300 323 0161
E: advice@fas.scot
W: www.fas.scot

Introduction

To make a sheep system sustainable it must be profitable in the present but also in the future with rising input costs (feed, fertiliser), unpredictable weather (grass growth), anthelmintic resistance, changing consumer demands and fluctuating lamb prices.

The FAS Sustainable Sheep Systems series, delivered by Daniel Stout and Hazel Laughton of SAC Consulting, looked not only at how we can optimise performance and output in sheep systems but also reduce cost of production and reliance on inputs such as concentrate feeding. This can be achieved through a focus on optimising grazing systems and forage in the diet whilst having the right genetics and management to suit the system, supported by effective and sustainable disease control.

The project featured a run of excellent speakers over 6 webinars and two podcast as well as technical notes covering all aspects of sustainable sheep production .

To view all the outputs from the series visit the web page: [FAS Sustainable Sheep Systems](#)

Webinars

Breeding & Feeding for Sustainable Sheep Systems

Dewi Jones, CEO of Innovis Breeding Sheep, took us through a whole systems approach to developing a sustainable forage-based sheep enterprise. Including the value of matching lambing date (demand) with grass growth (supply), rotational grazing, forage crop wintering systems, monitoring – grass, livestock performance, BCS, health – and investing in field sub-division and water infrastructure.

Dewi outlined the value and importance of performance recording and selection pressure under commercial conditions in stud flocks. Emphasising the importance of traits such as mature ewe weight (feed costs, stocking rate), lambing traits (labour and lamb losses), BCS (performance, feed cost) and longevity (replacement costs) have on production costs and profit. All of which they have developed EBVs for.

Lambing Ease in Abertex population

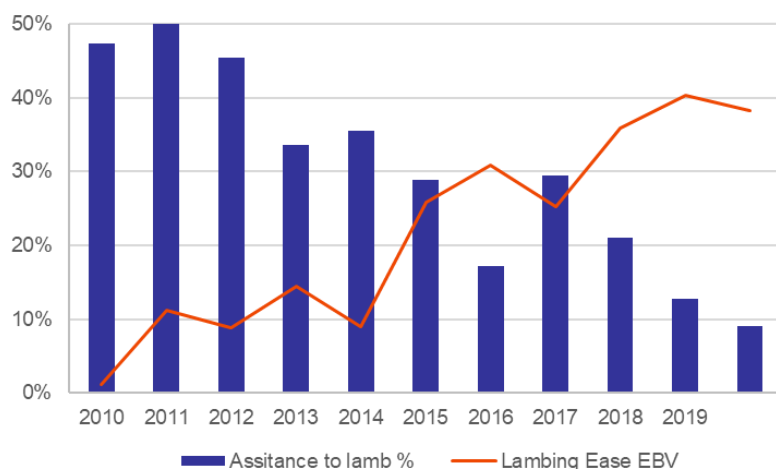


Image credit: Dewi Jones

For more information see the FAS website www.fas.scot



Scottish Government
Riaghaltas na h-Alba
gov.scot



The European Agricultural Fund
for Rural Development
Europe investing in rural areas

HB 200824

Ewe are What Ewe Eat

Mary Young, SAC Consulting Livestock Nutritionist outlines the fundamentals of effective winter and late pregnancy feeding to optimise performance, outlines how to ration and how to do a forage budget. Cost effective feeding should focus on optimising forage intakes and complementing this with the minimal amount of correct supplementation – forage must be analysed.

Feed ewes to maintain body condition score (BCS) through pregnancy. Only fat ewes 4+ should be allowed to lose ½ BCS. Draft ewes on BCS at scanning and preferentially feed thin ewes. This can be done by putting them in the litter size above.

Recommended reading from Mary:

FAS Companion App – Forage budget calculator: [FAS Companion App](#)

AHBSs Feeding the Ewe publication: [Feeding the Ewe](#)

Two's Company Three Doesn't have to be a Crowd

Breeding ewe hoggs and managing ewes for more triplets can lead to increased flock output and profitability. However, if poorly managed, triplet bearing ewes and the breeding of hoggs can lead to poor lamb survival, disappointing lamb performance and impact future performance of the hogg.

This need not be the case with effective and flexible management, breeding and feeding strategies. Poppy Frater of SAC Consulting shared best practice advice on how to optimise the performance of triplet bearing ewes and breeding hoggs. James Drummond shared his experiences of rearing triplets on the ewe and twins on hoggs over the past 4 years within their stud flocks of Aberfield and Abertex ewes at Lemmington Hill Head farm in Northumberland.

Opening the Door to Outdoor Lambing

Sean Cursiter explains how and why he has set up an outdoor lambing Romney flock in Orkney. Through effective management, lambing preparation and breeding selection the flock is achieving strong performance and low losses having rearing at 165% (inlc ewe hoggs) in 2021 with an average weaning weight of 35.8kgs.

Sean notes that appropriate lambing date to lamb down without supplementary feeding, adequate shelter, field allocation and being over prepared at lambing time with everything you may need to hand are essential to optimise lamb survival outdoors.

Sean is a big proponent of within flock selection through performance recording. All lambs are tagged at birth, assigned parentage and scored for vigour using a Psion handheld recorder. Ewes, and their lambs, that need assistance to lamb, show poor mothering ability or udders are notched and culled. Weighing lambs at weaning then allows a ewe efficiency score to be used to select replacements and those ewes to be bred pure – weight of lambs weaned as a proportion of ewe weight – target being +100%.

Image credit: Sean Cursiter

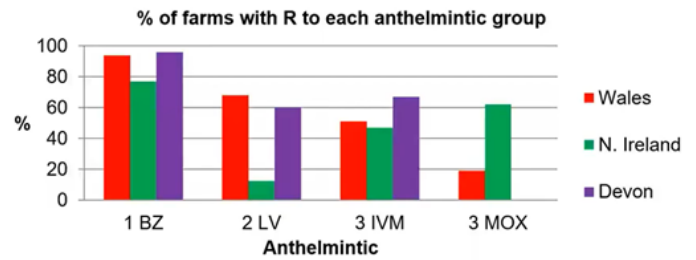


Strategic Worming – The Early Bird Catches the Worm

Heather Stevenson, SRUC Veterinarian, spoke of sustainable worm control to limit the development of anthelmintic resistance whilst promoting livestock performance. The importance of planned grazing and anthelmintic use strategies to maintain susceptible worms in refugia.

Image credit: Heather Stevenson

Anthelmintic Resistance



www.hccmow.org.uk WAARD Final Report (Wales)
 Veterinary Parasitology, 2013, 195, 122-130 (N. Ireland)
 Vet Record, 2017, 180, 378-380 (Devon – MOX not tested)



The great parasite challenge

- No routine drenching adult stock
- No long acting products
- Cattle and fit mature ewes used as worm mops
- Weaning protocol
- Regular drenching but using TST enabled by eid tags and weigh scales (5-10% undrenched)
- Strict quarantine treatments

Jim Logan shared with us the worming strategy he has developed at Pirntaton Farm.

Image credit: Jim Logan

Opportunities in the Halal Sector for Farmers

Awal Fuseini, AHDB Halal Sector Manager, gave an insight into the importance of the growing and often misunderstood Halal sector in the UK. Points of note:

- Over 70% of small ruminants in Great Britain are halal slaughtered. Animal must be alive at slaughter but needn't be conscious. Majority of halal slaughter is performed using electrical stunning, the same method as non-halal.
- Halal market presents opportunity for carcass balance through providing a market for parts not regularly consumed in this country such as offal, head and feet. It also supports the mutton market. It is worth noting when considering cull ewe sales that Muslims prefer leaner animals that are not overfat.
- 62% of UK Muslims consume lamb on a weekly basis compared to 6% of the general population.
- The Middle East imports 90% of its beef and lamb consumption, the majority imported being stunned. UK exports there increased from 79t in 2019 to 657t in 2020.
- The UK can't compete with Australia on price or shelf life. Australia can guarantee up to 120 days shelf life whilst UK only a maximum of 30-40 days. We must focus on having a 'premium product'.
- Qurbani market saw >100,000 head of ruminants slaughtered in the UK this July. Under scripture animals must be at least 6 months old. With the market again in July next year producers should seek to understand the market demands and plan production if they wish to make the most of the opportunity.

Videos

Tips for Reducing Labour at Lambing

A collection of lambing time labour saving tools, tips and tricks. Including a quad mounted outdoor lambing box, the super crook, a novel watering system, ring feeder design to allow access to the bales centre and a homemade ATV ramp system for going between fields without opening gates.

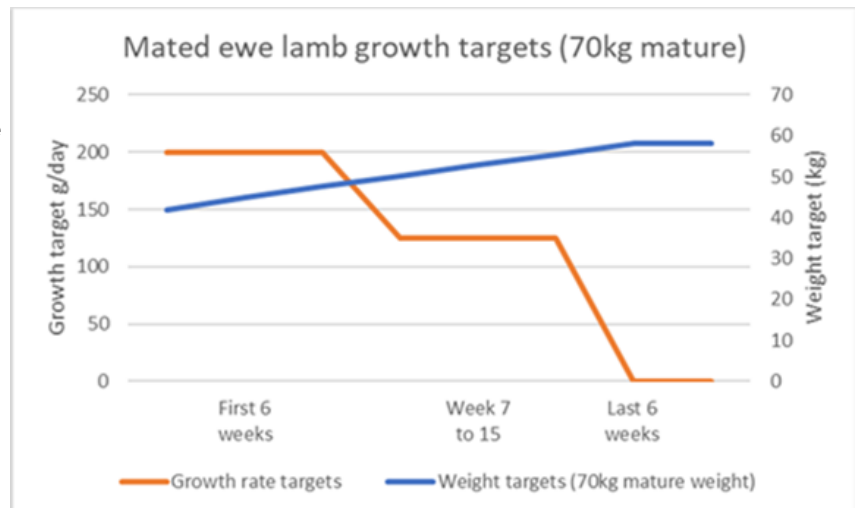
Information Notes

Successful Management of Triplet Rearing Ewes and Breeding Hogs

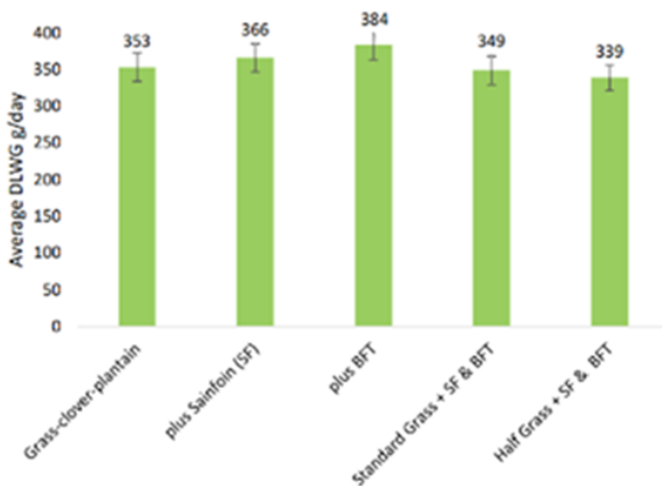
Summary of the 'Two's Company, Three Doesn't Have to be a Crowd' webinar.

Poppy Frater took us through effective ewe hogg nutrition including target weights and growth rates to optimise hogg development and mothering performance whilst mitigating issues with dystocia.

Image credit: Poppy Frater



Average lamb Daily Liveweight gain (g/day)



James Drummond highlighted the value of herbal leys with their higher nutritional value leading to improved lamb growth rates, ewe body condition score and hogg growth to second mating. These swards are prioritised for triplet rearing ewes and rearing hogs. Adjacent graph shows impressive hogg single growth rates to 8 weeks on herbals leys of differing composition.

Image credit: James Drummond

Promoting Lamb Survival Outdoors – Lessons from down under

A review of recent Australian research on the impact of mob size (number of ewes in a lambing group) and stocking density on lamb survival. With recommendations in a Scottish context.

The 3 year National Lamb Density Project on 70 farms across South Australia on twin bearing Merino, maternal composite and crossbred ewes found a 2% decrease in twin lamb survival for every 100 ewes in the lambing mob. This was consistent in Merinos and maternal/cross ewes.

Highlighted is the value of appropriate field allocation with multiple bearing ewes (higher risk of ewe/lamb separation and lamb mortality) given the best fields in terms of pasture cover, shelter and aspect but also the smaller fields which facilitate lower mob sizes. Sub-division, permanent or electric fencing, can as a result improve lamb survival by simply splitting ewes into smaller mobs.

Technical Notes

TN747 Recording Lambing Traits

The Technical Note outlines scoring systems and selection criteria for lambing traits – lamb vigour, lambing ease, lamb birth weight and maternal behaviour – which influence not just labour requirements at lambing but also have a major impact on lamb survival.

Lamb vigour

Lambs born with strong vigour that get up and suckle quickly have a much greater chance of survival. Poor vigour increases the risk of lamb mortality but also adds a significant burden to labour resources where lambs require suckling or additional feeding. Lambs can be scored directly for vigour based on their time to stand, however, this requires monitoring and as such is not suitable for outdoor lambing. The alternative is to score based on the need for assistance to suckle.

Presence or absence

0 or no mark	1 or mark
Up and suck / no intervention	Poor vigour / help to suckle

3-point scoring system

0	1	2
Up and sucks	Slow to suck	Suckled

Complex scoring system – lamb vigour score

Each lamb should be scored for activity and vigour at 5 minutes after birth.

1. Very active and vigorous lamb. Holding head up, and on knees, trying to stand up (eg balanced on knees and back legs), or has stood, moving towards ewes and may be trying to find udder.
2. Active, vigorous lamb. Holding head up, rolled onto chest with knees underneath, maybe pushing up onto knees but not yet trying to stand.
3. Weak lamb. Still lying fairly flat although able to hold up head. Not yet trying to raise chest from ground by pushing knees.
4. Very weak lamb. Not yet raised head, may be having difficulty breathing, either no movements or only weak and uncoordinated movements (eg paddling).

Complex scoring system – Suckling assistance score

1. Lamb suckling well unaided. Lamb always appears full when checked and no time is required to help lamb suck from ewe.
2. Lamb required some help to suck (no more than 2 occasions) from the ewe in the first 24 hours of life.
3. Lamb needed help to suck from the ewe more than twice, and for more than 24 hours, but less than 3 days.
4. Lamb needed help to suck from ewe for more than three days.

TN748 Strategic Silage Production for Sheep Systems

TECHNICAL NOTE TN748 June 2021 • ELEC



Strategic silage production for sheep systems

National Advice Hub
T: 0300 323 0161
E: advice@fas.scot
W: www.fas.scot

Summary

- The production of high quality silage for late pregnancy feeding provides the opportunity to meet more of the ewes' nutritional requirements from forage, reducing supplementary concentrate feed requirements and cost.
- Rationing has highlighted that the production of very high quality silage (11.5 ME), over moderate quality (10.5 ME), can save 12.5-13kg of concentrate feed per ewe depending on number of lambs carried saving £3.13-3.25 per ewe with concentrates budgeted at £250/t.
- Modelled for a 1000 head ewe flock scanning 200%, a 12.7t saving in concentrates worth £3,100 can be realised through feeding very high-quality silage over that of moderate quality silage or 27.2t of concentrates worth £6700 compared to feeding low quality silage or hay.
- There are several considerations to producing more high quality silage compared to moderate quality silage: including cost, practicalities and ewe condition. Modelling has found producing 50-55% of total silage as very high quality is optimal for mid-season lambing flocks scanning between 160-200%.
- Grouping ewes into early (1st 10 days) and late lambers, facilitates delayed concentrate feeding to late lambing ewes. Modelling of a 1000 head ewe flock scanning 200% found a saving of 3.16t of concentrates worth £790 to be possible through grouping ewes.

Podcasts

Mastitis

We meet with Professor Laura Green OBE of Birmingham University and Poppy Frater to discuss the latest research on mastitis, the pathogens involved and how we can refine management and nutrition in sheep systems to reduce mastitis risk. Points of note:

- Lambs from mothers with mastitis suckling other ewes is a key transmission pathway for mastitis bacteria. Separate ewes and lambs with mastitis from the main flock to reduce the spread of mastitis within flock.
- Lumps in the udder are bacterial abscesses and have been shown to reduce offspring growth rates (less milk) and increase the risk of the ewe getting acute mastitis the following year. Where at low levels, cull ewes at weaning/pre-tupping that have lumps in the udder. If at high levels making it uneconomic then consider a split flock approach. Also consider genetic selection for udder morphology.
- Effective ewe nutrition can reduce the risk of mastitis by ½. Not only does it promote good milk production and lamb performance but also by providing sufficient milk the frequency and severity of lambs butting the udder to stimulate milk let down is reduced which in turn reduces the risk of damage and abscesses being ruptured leading to mastitis.
- Get silage analysed and rations carried out for pregnancy/lactation supplementation and ensure sufficient pastures covers are maintained before ceasing supplementation (+4cm).

Getting on Top of Lameness

Professor Laura Green OBE discusses how best to get on top of footrot and reduce lameness in the flock. Laura has been involved in a great deal of hugely influential research on lameness, the impact of foot trimming and effective treatment and control of footrot. Points of note:

- Research has found foot trimming to contribute 42% to the prevalence of lameness. Routine foot trimming increases flock lameness due to bleeding and damage to the foot. Cease this practice.
- Timing is critical to achieve control over lameness. Treat sheep within 3 days of being lame. Not only does this give best recovery for the lame animals but also reduces the spread to others in the flock.
- In one study, where footrot was treated by foot trimming and antibiotic spray only 10% of ewe had recovered in 5 days and 25% in 10 days. However, when treated with antibiotic spray and injection with no foot trimming then 70% of ewes recovered in 5 days and >95% in 10 days. Foot trimming delays recovery and shouldn't be practice for footrot.
- Separating lame animal from the mob (on pasture or housing) can be highly effective in reducing the spread of footrot and lowering flock lameness.
- Rapid treatment without trimming and separation of lame animals alongside culling of repeatedly lame animals and closed flock/effective quarantine can be highly effective in reducing lameness.

The Sustainable Sheep Systems series is delivered by Daniel Stout and Hazel Laughton of SAC Consulting through the Farm Advisory Service. Contact: daniel.stout@sac.co.uk

Visit the FAS Sustainable Sheep Systems webpage: [FAS Sustainable Sheep Systems](#)



National Advice Hub
T: 0300 323 0161
E: advice@fas.scot
W: www.fas.scot
