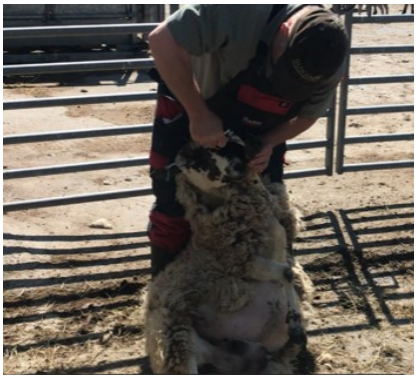
Tackling Lameness at Torhousekie

Kenny Adams was a monitor farmer from 2010—2015 in South West Scotland. During his time as a monitor farmer Kenny focused his attention on simplifying his cattle system and reducing high purchased feed costs. The Monitor farm project gave Kenny the opportunity to take advice from peers and experts and the confidence to implement changes. He has continued to develop his cattle system and has now turned his attention to applying the same principles to improve productivity in his sheep flock.

Lameness has been a perennial problem at Torhousekie over the last few years. The cause of lameness has been identified as a combination of conditions including scald, footrot and contagious ovine digital dermatitis (CODD). Infection can be transferred from ewes to lambs, hampering performance of lambs and productivity of ewes. Secondary to these foot conditions is the presence of Erysipelas causing severe joint ill in lambs. Lambs are more susceptible to this bacteria which gains entry to the bloodstream through wounds, scratches or punctures on skin or umbilicus. Successful recovery from this infection is often very poor.

Kenny has a number of challenges with the layout of his farm as such it is segmented by the busy B733 road which makes movement of sheep to the sheep yards at the steading time consuming but also requires additional labour to move sheep over the road safely. This often means responding to lameness issues is not as timeous as would be recommended. Kenny currently vaccinates lambs to prevent Eriseplas and uses a combination of antibiotic treatment and footbathing to treat and prevent scald, footrot and CODD.



After consultation with his local vet Kenny has implemented a plan which includes:

- vaccinating all ewes this Autumn
- upgrading handling system to improve timeliness of treatments
- Increasing cull policy
- Improvements to disinfection protocols during handlings.

The aim is to bring the incidence of lameness down from 12% to 5% of ewe flock over the short term, and increase productivity of ewes and lambs with fat lambs sold earlier in season.

The Economic Impact of Lameness

The estimated true cost of lameness in a sheep flock varies from different sources, however, the cost of treatment, management and loss of production are significant and cannot be ignored if your flock is to be profitable.

Studies from Reading University indicate savings of £1018 when incidence of lameness is reduced from 10% to 3% and treatment is prompt. This potential saving can assist with investing in an efficient system to manage cases of lameness once it has been brought under control. To effectively manage lameness a multi faceted approach is required, which looks not only at treatment and control but also management, hygiene, handling systems, access routes and weed control.

	Cost per ewe	Cost per 100 ewes
3%	3.98	398
10%	14.16	1416

The farm animal welfare council have recommended a target level of lameness within sheep flocks of 2% by 2021. It is important to distinguish between prevention, treatment and management strategies as preventative measures such as footbathing will not treat existing cases of infections such as footrot and may actually cause further spread of the infection through healthy sheep. Management of lameness is time consuming especially if there are a significant number of cases to overcome first but it is critical to engage with your local vet to develop a plan for treatment and prevention to ensure the appropriate antibiotics are being used where applicable and timing of vaccines does not interfere with other animal health treatments on farm. Lameness requires a holistic approach and will take time to resolve but bringing the incidence of lameness under control will have a positive effect on sheep performance and business profitability.

Prevention, Treatment and Management of Lameness

Prevention

- Quarantine purchased or infected stock
- Disinfect hoof knife/trimmers between sheep
- Disinfect yards/housing
- Keep on top of weeds such as thistles that can cause puncture wounds allowing entry for bacteria.
- Routine vaccinations
- Move sheep to a 'clean' field after treatment
- Use of footbathing-let sheep stand for 30 min post bath on clean, dry hard surface

Treatment

- Consult your Vet and formulate a strategy with detailed plans of timings of vaccines
- Ensure you are practising appropriate administration of antibiotics for ewe liveweight
- Treat quickly
- Consult vet on most effective antibiotic to use if required

Management

- Ensure surfaces in yards/ gateways are level and clean
- Set up footbath to suit sheep flow
- A good handling system will make regular treatment of sheep less stressful for you and the sheep
- Cull lame ewes
- Consider using genetic indicators to purchase rams bred for no lameness
- Avoid foot trimming

Further Reading. Reducing lameness for Better Returns | AHDB, Identifying the cause of lameness in sheep | AHDB , NADIS - National Animal Disease Information Service

Cause, Diagnosis and Treatment of Lameness

Condition	Description	Treatment	Cause	
Scald	Moist, red/pink painful inflammation between digits	• Antibiotic spray/ injection • Footbath	Bacteria Dichelobacter nodosus found on pasture. Bacteria survives on pasture for 14 days	
FootRot	Pus, foul smell, separation of hoof	• Antibiotics (consult vet) • vaccine	Same bacteria as cause of scald, highly infectious and spreads in moist, warm conditions	
Contagious Ovine Digital Dermatitis (CODD)	Red, painful, raw lesion starts at top of hoof, hoof separation. Foul smell	• Consult vet • Painkillers and Antibiotics	Bacterial infection from Treponema SPP. Risk can be reduced through treatment for footrot. Highly contagious	
Toe Granuloma	'strawberry' lesion at toe	• Antibiotics if infected	Over-trimming and foot bathing which causes damage to sensitive tissue beneath horn hoof	
White Line Abscess	Follows shelly hoof, infection tracks up white line and penetrates at top of hoof	• Pair and drain abscess (poultice) • Antiobiotics	Caused by puncture to the hoof or separation of white line	
Shelly hoof	Separation of toe and wall horn. Sheep may not appear lame or require treatment.	• Trim hoof if loose • Treat only if lame	Associated with damage from stony ground, rough or wet ground