



MONITORING FLOCK PERFORMANCE

Keeping records, setting targets and measuring performance allows you to look back on your flock production year and identify areas which were not up to scratch. If you don't know where you've been going wrong, how can you fix it?

SETTING TARGETS

The net margins on the majority of UK sheep farms are tight. Knowing the cost of production, and the breakdown of these costs, is an important step to improving the profitability of your sheep enterprise. This will allow a cost benefit analysis to be conducted when considering the impact of making changes. Knowing the kilogram of lamb sold per kilogram of ewe put to the ram (kg:kg) is important. Smaller ewes may be more efficient, allowing a higher kg of lamb sold per hectare.

REARING

Do you know your rearing percentage? It could make a real difference to your income!

$$\text{Rearing \%} = \frac{\text{number of lambs reared}}{\text{number of ewes put to ram}} \times 100$$

Example:

- Farm A has 500 ewes, with a rearing % of 140%
 - Farm B has 500 ewes, with a rearing % of 170%
- Same number of ewes, but Farm B rears more lambs.

See the table for some targets for conception rates and lambing percentages. If you're not hitting these targets, it's time to think about getting the vet in to undertake some investigations to determine why this might be.

	SYSTEM STANDARDS		
	LOWLAND	UPLAND	HILL
A. Ewes tupped	100	100	100
B. Lambs scanned	195	175	116
C. Lambing percentage	183	166	112
D. Lambs turned out	172	156	104
E. Rearing percentage	168	151	100
LAMB LOSSES			
Scanning to birth (B-C)	12 (6%)	9 (5%)	4 (3%)
Birth to turn-out (C-D)	11 (6%)	10 (6%)	8 (7%)
Turn-out to weaning / sale (D-E)	4 (2%)	5 (3%)	4 (3%)
Birth to sale (C-E)	15 (8%)	15 (9%)	12 (10%)
Scanning to sale (B-E)	27 (14%)	24 (14%)	16 (14%)

Table from ADBH: *managing ewes for better returns*¹⁰



Calculating these figures requires good records of where lambs are lost. Using a record sheet like the one below can assist with keeping a tally of lambs born alive vs lambs born dead or aborted. Once you know where losses are occurring, and to what level, it can guide investigation of why this might be. See the MSD Hub¹ for this and other useful tools.

LAMBING RECORD

Farm name: Sheep health advisor:

Lambing start date: Lambing end date:

	LAMBS		
	Born alive	Born dead / abortions	Dead
Singles			
Twins			
Triplets or more			
TOTALS			

	EWES		
	Lambled	Dead	Barren

Ewes scanned:

Lambs born:

Lambs dead:

Scanning %:

Lambing %:

Rearing %:

MSD Animal Health logo

Abattoirs are required to provide feedback to producers. This can be a really useful tool, not only flagging up potential problems such as liver fluke or pneumonia (which will have impacts on growth rate, and mortality), but also providing information on carcass characteristics. For instance, sending lambs for slaughter overweight or over-fat will result in no extra income, but will have cost extra in terms of feed, and reduced feed available for the remaining sheep. The AHDB guide *Understanding Lambs and Carcasses for Better Returns* is a good introduction to interpreting your abattoir feedback.

DISEASE COST AND CONTROL

Endemic disease is a huge barrier to flock profitability: the annual cost to UK farmers of gastrointestinal nematodes (worms) has been calculated at £84 million; around a quarter of all lamb losses are the result of abortion or stillbirth, draining £24 million and £12 million from the national flock respectively²; and footrot accounted for £24 million in costs³. Another thing to think about is the cost at an individual level – for example, selling one lamb in September rather than June might be lost profit of £30, while losing 1 additional ewe requires purchasing 1 additional replacement, an extra cost of £120. One study found there was a positive correlation between making use of farm records, and lamb-derived profit for sheep farms⁴.

ANTIBIOTIC USAGE

Work by RUMA⁶ has identified unnecessary and routine use of antibiotics in sheep flocks, such as relying on injectable oxytetracycline to control enzootic abortion, antibiotic treatments alone to tackle lameness and blanket oral antibiotics for watery mouth prevention in new-born lambs. Therefore tackling these behaviours will have a major impact on total antibiotic usage. The benefits of responsible antibiotic use are:

- Reducing development of antibiotic resistance
- Ensuring required treatments work on farm when necessary
- Inappropriate use does not contribute to antibiotic resistance in bacteria affecting humans, thereby safeguarding the health of future generations.

In a survey of 207 commercial sheep flocks, the average (mean) level of antibiotic usage was found to be 11.38 mg / kg PCU, but half of farms used less than 5.95 mg / kg PCU⁷. If you're using more than 20 mg / kg PCU, you're very much at the top end of sheep flocks in terms of antibiotic use – are you sure this level of usage is necessary? Speak to your vet about how to measure and reduce the use of antibiotics in your flock.

CASTRATION AND TAIL DOCKING

The Code of Recommendations for the Welfare of Livestock: Sheep⁸ says 'Farmers and shepherds should consider carefully whether castration and tail docking are necessary within any particular flock. Castration should only be carried out when lambs are likely to be retained after puberty and where it is necessary to avoid welfare problems associated with the management of entire males. Tail docking may be carried out only if failure to do so would lead to subsequent welfare problems because of dirty tails and potential flystrike'. They are painful procedures, so discuss with your veterinary surgeon how this pain can be reduced if they can't be avoided. There is variable evidence that entire lambs grow faster than wethers, and more conclusive evidence that they produce a leaner carcase⁹.

FACTORS POSITIVELY ASSOCIATED WITH SHEEP FARM INCOME OR PRODUCTIVITY^{4,5}

In two recent publications, which analysed the lamb-derived revenue on commercial sheep farms, the following were found to be positively associated with sheep farm income or productivity:

Grazing: Use of fertiliser, increased stocking rate, and rotational grazing

Ewes: Culling for prolapses and infertility, measuring BCS at lambing

Lameness: Isolation of lame sheep and never trimming lame feet

Farmer: Increased education, positive business attitude and using records

Vaccinating: For clostridial diseases and *Pasteurella* pneumonia

DON'T FORGET!

Your vet or flock health advisor is a useful tool for 'horizon-scanning' for new diseases, new vaccines and new management ideas – and they see many other sheep enterprises so can offer a broad perspective on sheep health and production. This complements the deep, specific knowledge farmers and shepherds have of their own enterprise. Make sure you make the most of this resource by enlisting them to help you create your flock health plan, and review this at least yearly.



THE MSD FLOCK PERFORMANCE INDICATOR

The MSD Flock Performance Indicator (FPI) is a separate spreadsheet-based tool which is designed for vets and farmers to assess flock performance. It helps to highlight areas where performance is good, or can be improved. It's data-driven, the vet and farmer can input basic production data which they should have to hand, and the FPI will use this to calculate key performance indicators.

These can be used alongside the Flock Health Checklist to create an action plan to improve the farm's production figures and help the farmer realise the importance of veterinary input into the overall management of flock health. The FPI is available from your MSD Animal Health Account Manager.

'Veterinary costs are important to consider: I divide them into 'good' costs and 'bad'. A bad veterinary cost is one that involves disease, deaths, loss of production and a failure to thrive with all the associated costs of treatments, increased good handling, poor growth rates and stress for the shepherd. In contrast, good veterinary cost is the investment in robust preventive health planning which promotes good health and welfare for the flock and provides peace of mind for the shepherd.'

Fiona Lovatt

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