

# Plan an effective ewe

**Michael Gottstein and Ciaran Lynch**  
Teagasc Animal and Grassland  
Research & Innovation Programme

## Case study

An absolute certainty for all sheep farmers who plan to maintain their ewe flock is that they will need to replace sheep that become old/unproductive or die annually. Typically, this is in the order of one in four for lowland flocks and may be slightly higher in intensive systems or upland areas.

In most flocks, the replacement strategy will fall into one of three categories:

- Retaining ewe lambs born on farm.
- Purchasing replacement ewe lambs.
- Purchasing replacement hogget ewes.

Retaining homebred ewe lambs offers the obvious advantage of known disease status. It also offers the opportunity to fully exploit genetic improvement by using high genetic merit rams. To get maximum benefit from this approach, however, requires the flock owner to run maternal rams to produce these replacements and will result in a separate group of lambs not destined for sale.

Purchasing replacements as either ewe lambs or hoggets offers the advantage of not having to worry about this group of stock until they are purchased. There is no need to use maternal rams and all lambs produced on the farm are finished for slaughter or sold as stores. It can simplify management and reduce the number of grazing groups on the farm. However, unless there is a known link to the producer of these lambs, there will be very little information on the genetic merit of the stock and there is a significant risk of bringing disease into the flock.

### Risk

The risk of purchasing animals carrying infectious disease or resistant parasites should not be underestimated as it can have serious financial consequences for the flock.

There are a number of sheep farmers and breeder groups who specialise in producing maternally sired ewe replacements for sale as either ewe lambs or hoggets. Establishing links with producers who have breeding objectives similar to your own, and where the flock health history is known, significantly reduces the risk of buying in disease or sheep that subsequently fail to deliver to expectations.

## John Curley, Four Roads, Co Roscommon

John Curley has been participating in the BETTER sheep farm programme for the last six years.

As part of the programme, John has a clearly defined breeding policy which has revolved around a reciprocal cross of Suffolk and Belclare ewes where Suffolk-sired ewes are mated with Belclare rams and vice versa. This policy has resulted in his flock being able to consistently achieve key targets such as litter size of 1.9 and a weaning rate in excess of 1.6 lambs per ewe joined with the ram.

The aim of John's breeding policy is to produce ewes that consistently produce twins and are capable of rearing two lambs to a target weaning weight of 34kg at 14 weeks of age. By breeding replacements from within his flock, the only sheep being brought on to the farm are a small number of replacement rams. This significantly reduces the risk of bringing in disease. In the case of certain diseases, such as scrapie and enzootic abortion, the risk is eliminated altogether as these are not transmitted by male sheep.

Another advantage of having a clearly defined and successfully



implemented breeding policy is that surplus ewe lambs can be sold off the farm for breeding at a premium price. In fact, many of the farmers participating in the BETTER farm programme have experienced

**Table 1: Replacement costs**

	Breeding ewe lamb	Purchase hogget	Dry hogget
Ewe lamb value(€)	94.5		90
Purchase value(€)		170	
Feed costs(€)	Grass costs: 47.28 Silage cost: 12.50		Grass cost: 29.12 Silage cost: 12.50
	Ewe supplementation (48kg): 12.96 Lamb supplementation (25kg): 6.75		
Veterinary costs(€)	10.80	12.60	7.70
Other costs(€)	6	2	4
Total costs(€)	190.79	184.60	143.32
Cull ewe value(€)	58	58	58
Lamb value	81		
Net replacement cost	€51.79	€126.60	€85.32
Annual replacement per ewe (23% replacement rate)	€11.91	€29.12	€19.62

# replacement strategy



Ewes are divided at mating. Belclare ewes (white ewes) are mated with Suffolk rams and Suffolk ewes (Blackfaced ewes) are mated with Belclare rams.



John Curley.

significant demand for the surplus ewe lambs in their flocks. Part of the process of examining replacement policy on sheep farms involves looking at what is required from the replacement and how much it will cost.

Figures compiled by Shane McHugh and Ciaran Lynch show that replacement costs can vary from almost €12 to €29 per ewe in the flock, making this one of the most significant costs on a sheep farm. See Table 1.

Making the correct decision when it comes to selecting an appropriate replacement policy is important. Areas that should be considered are:

- Prolificacy: for lowland systems, the target should be to wean in excess of 1.6 lambs per ewe joined to the ram.
- Body size: big ewes (85kg +) have very good cull values when sold, but these are outweighed by them having a larger maintenance cost for the four or five years that they are maintained on the farm before being culled.
- Management attributes: easily lambled/handled and hardiness for

hill breeds, etc.

- Flock health: daughters of ewes/rams that are prone to lameness, prolapse, lambing difficulty and mastitis should not be retained.

Where replacements are not retained and the decision has been made to purchase them instead, a comprehensive biosecurity programme needs to be put in place to ensure that the risk of bringing new disease or resistant parasites on to the farm is minimised. Veterinary advice should be sought to develop this programme.

Mating ewe lambs in their first year can significantly reduce replacement costs (Table 1) arising from the extra output from these ewe lambs.

Research comparisons between mating and not mating ewe lambs has shown that ewe lambs that are mated as ewe lambs produce more lambs, wean heavier lambs in their second lactation and if they are managed properly, do not have a reduced litter size the following year.

Critical to the success of this enter-

prise is that ewe lambs are big enough when mated in the first place (a minimum of 60% of their mature weight). In practice, this means that Belclare cross ewe lambs should be at least 45kg whereas some of the terminal sired crosses need to be closer to 52kg.

## Priority access

Lactating yearling ewes need to be given priority access to the best grass and should be supplemented with meal in the first five weeks of lactation if rearing twins.

It is important to remember that these yearling ewes will be expected to rear lambs and also grow their own bodies during the lactation which is a big ask.

For this reason, it is important to use an easy-lambing sire and also to keep the mating period reasonably short. Where it is not feasible to run yearling ewes and their lambs as a separate group, or where the liveweight of ewe lambs is less than 60% of their projected mature ewe weight, they should be run dry instead of being mated.