



What's your breeding plan?

If you operate a mid-season lambing production system, the actions you take in September and October will have a significant effect on the output from your sheep flock next year

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Lambs weaned per ewe mated is key to the profitability of a sheep flock. The genetics of the ewe is one of the main factors that affect this outcome. A number of simple measures will improve the long-term productivity and profitability of your sheep enterprise.

When it comes to replacements for your ewe flock, you have two choices: breed your own, retaining lambs born on the farm, or buy replacements.

Advantages of breeding your own include maintaining a closed flock and reducing the risk of buying in

disease. You also have control over the breed of ewe that you will have for the future. You can produce prolific replacements by selecting an appropriate ram. Ram choice will have a significant effect on the flock output in the future.

A maternal ram such as Belclare, Lleyn or one of the Leicesters (Blue-faced or Border) is used to produce prolific replacements. You only need to mate a proportion of your ewes to the chosen maternal breed. The female lambs produced from these rams will go on to become highly prolific ewes.

By adopting this policy, you will have a highly prolific flock after five or six years. This will enable any farm to consistently achieve weaning rates of over 1.6 lambs per ewe mated. The male lambs will be destined for slaughter. While these

will have slightly slower growth rate than lambs born from terminal sires, farmers find that they can achieve satisfactory weights and grades when managed properly at grass.

This is backed up by results from Teagasc research and from the Teagasc BETTER farm programme. Ewes not required to produce prolific replacements can be mated to a terminal breed to produce fast-growing fat lambs for slaughter. Suitable terminal breeds include Suffolk, Texel and Charolais.

Adopting this strategy means you will be running two groups of ewes during the mating season. One group will be running with maternal rams and the other with terminal rams, to produce lambs for slaughter.

The proportion of the flock that needs to be mated to a maternal sire breed to ensure enough replacements



a replacement rate of 23% you need to keep 23 of these lambs (23/100). This allows for only a very small level of selection. If you want to have more room to select the actual ewe lambs you wish to keep, or if you wish to keep more than 23% replacements, increase the number of ewes mated to the maternal rams.

Increasing this number will also help ensure you have enough females in a year when a very high proportion of the lambs reared happen to be male lambs.

Rams required for your flock

On large-scale lowland farms there should be no problem in using one mature healthy ram for every 60 to 70 ewes, provided there are at least two to three other mature rams in the group. A well-grown ram lamb can mate 40 mature ewes without any problems. When purchasing a ram, you should opt for a pedigree ram with a high star rating under the Sheep Ireland index system.

Noirin McHugh, Teagasc, suggests the following are key reasons to go for a five-star ram:

- **Less labour at lambing:** on average, five-star rams experience less lambing difficulty relative to rams of lower star ratings.
- **More lambs:** five-star commercial ewes recorded in the Sheep Ireland system have been shown to have a higher number of lambs born.
- **Greater growth rates:** results from analysis of Sheep Ireland commercial data show that five-star lambs are on average 0.54kg heavier than one-star lambs at seven weeks of age. This resulted in five-star lambs being more than a kilo heavier at weaning relative to one-star lambs, (33.02kg for five-star lambs compared with 31.94kg for one-star lambs).

- **More efficient ewes:** commercial five-star ewes, on average, had a lighter mature weight (69kg) relative to one-star ewes (73kg). At similar levels of production, this will result in the ability to increase the number of ewes in a given flock.

- **Long-term gains:** genetic improvement is permanent and cumula-

Table 1: Minimum percentage ewes mated to maternal sire for 23% replacement rate

Flock weaning rate	% of ewes
1.1	47
1.3	40
1.5	35
1.7	31
1.9	27

tive so breeding decisions that you make today will affect future generations. For example, if you were to use animals with “good genes” then the effects of these “good” genes will remain in the flock, but remember the reverse is also true!

Selecting a ram on stars alone is not recommended. Look at the traits that the ram excels in but also keep an eye on the stars where a ram may underperform. Accuracy values must also be viewed alongside the €uro values –the higher the accuracy the greater the information that is known about the animal and the greater the confidence we have that their published index value reflects the true genetic potential of the ram.

Putting it into practice

Galway farmer John O’Shaughnessy from Turloughmore, and his son Patrick operate a mixed sheep and cattle farm. The flock consists of approximately 250 ewes, including 50 ewe lambs. The sheep flock is stocked at approximately 12 ewes per hectare.

“We mate our best 60 ewes with a Belclare ram and the female progeny are used as replacements,” says John. “To produce lambs for slaughter we use Texel and Charolais rams.

“The Belclare produces ideal replacements, highly prolific, excellent mothers with a good supply of milk for the lambs.

The farm has achieved excellent annual weaning rates of 1.7 to 1.8 consistently over the past 10 years.

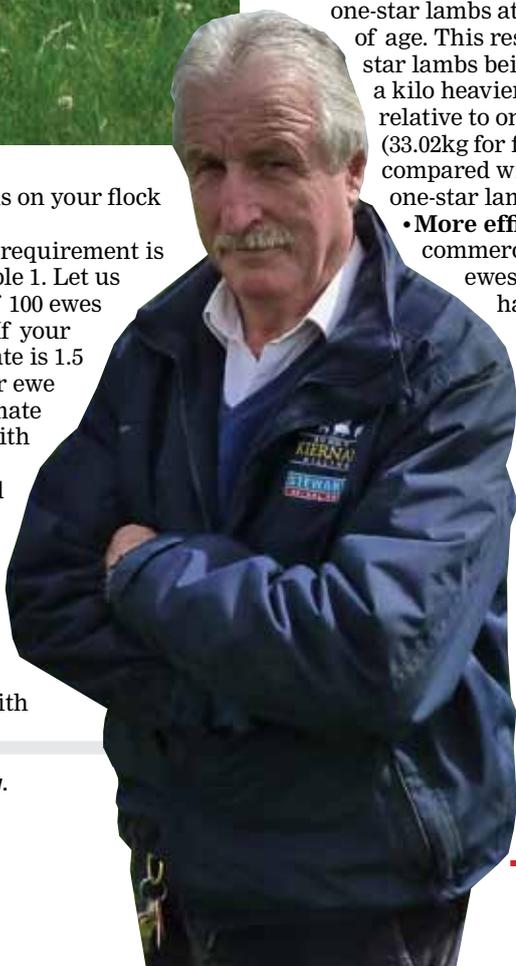
This is an exceptional performance, especially when you consider that the ewe flock includes ewe lambs. John says careful management of his grassland paddocks is also key. Top-quality grass is available for lambs at all times.

John and Patrick ensure ewe lambs have every chance of an easy lambing. “We make sure ewe lambs weigh at least 45kg, preferably 50kg, before mating,” concludes John. “We’ll also use Charolais rams on ewe lambs, second and subsequent lambers will produce the replacements.

are born depends on your flock weaning rate.

The minimum requirement is presented in Table 1. Let us look at a flock of 100 ewes as an example. If your flock weaning rate is 1.5 lambs reared per ewe mated and you mate 35 of the ewes with a Belclare ram, this should yield 52 lambs (35 x 1.5).

We can assume that half of these lambs will be female so you will have 26 ewe lambs. With



John O’Shaughnessy.