

What sheep farmers can do about high feed and fertiliser costs

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Fertiliser and feed are two of the biggest direct (variable) costs on sheep farms. Feed prices have been rising steadily over the last year and the price rises do not show any signs of abating. Fertiliser nitrogen prices will be multiples of what farmers paid in the spring and summer of 2021.

In this article, I focus on some of the steps that can be taken on sheep farms to reduce the reliance on purchased feed and fertiliser, and identify alternatives that will help underpin animal performance and farm profitability.

Concentrate feed

In 2020, according to the Teagasc National Farm Survey, the average sheep farmer spent just over €37 per ewe and lamb unit (ewe plus 1.34 lambs weaned) on concentrate feed.

A 20% price increase would add just under €8 to this figure. The scope to reduce this figure is huge and can be achieved by improvements in management of winter feed, flock health and grassland.

Steps to reducing concentrate usage:

- **Test your forage:** Different batches will need to be tested separately. Don't wait until feeding out time to do this – it will be too late to formulate your feeding plan.
- Identify the best forage and earmark this for the ewes in the last six weeks of pregnancy.
- **Boost forage intake:** Ensure that sheep have access to forage at all times.
- If roughage digestibility is poor but plentiful, consider removing refusals earlier. This will increase the digestibility of the forage consumed.
- Chopping forage will increase intake and reduce concentrate requirement.
- **Monitor Body Condition Score (BCS)** and house/supplement ewes before BCS starts dropping.



- **Identify any internal/external parasites** that require treatment and eliminate them.
- **Pen ewes separately** according to litter size and lambing date. Ultrasound pregnancy scanning will reveal this information where raddle marks have not been used.
- **Ensure that you have enough trough space** so that all animals can eat their fair share at the same time. You will need between 500-600mm each for most lowland ewe types.

Shop around for the best supplementary feed

Rations don't have to be complex. Simple two- and three-way mixes that include a mineral and vitamin supplement should suffice in most cases. Additional protein is generally only required in the last two weeks of pregnancy.

Grassland fertility

Fertiliser cost increases likely mean that the option of applying the same quantities in 2022 as have been applied in previous years is simply not an option for most sheep farmers.

When reducing the dependence on chemical fertilisers, it is critical to ensure adequate grass is available for grazing livestock and winter forage for the coming year. The aim should be to maximise grass growth while at the same time using chemical fertiliser strategically to boost growth

where most needed.

- Take soil samples to establish the level of soil fertility.
- Apply ground limestone (according to soil sample results) as soon as possible. This will mobilise nutrients from the soil, in effect making fertiliser available that has been locked up in the soil for years.
- Once all animals are turned out this spring, do a winter fodder budget. This will help to establish how much fodder is left over and help you to calculate how much ground needs to be closed up for silage/hay in the coming year.
- Calculate how much fertiliser you can purchase. Keep in mind the cost relative to what was purchased the previous year and the scope of merchant credit. Your annual fertiliser allowance should be allocated to priority areas first (e.g recently reseeded, silage ground etc) and then divide the balance among the grazing areas in small allocations to aid grass growth and quality.
- Maximise the use of slurry and farmyard manure (FYM) by using it earlier when utilisation will be better and it can play a greater role in offsetting some of the chemical fertiliser requirements. Use low emissions slurry spreading equipment if possible.
- Seek alternative sources of organic manure if available locally (e.g pig slurry, etc).

- Purchase the minimum compound fertiliser you need to maintain soil fertility in 2022. You can return to applying P and K build-up rates in subsequent years. On high soil fertility fields (P and K Index 4) no compound fertiliser is required so savings can be made. This leaves the majority of your fertiliser budget for straight nitrogen fertiliser (e.g. protected urea if it's available).

Grow more grass by improving your grassland management

- Keep grass that has been closed since October/November for the ewes after lambing. Don't be tempted to go in and re-graze these areas in order to delay housing.
- In 2022, limit your residency period to between three to five days to protect your regrowths and maximise growth rates.
- Reduce the number of grazing groups on the farm. This makes it easier to achieve shorter residency periods and allows for faster re-growth.

Stock numbers

- On highly stocked farms (over 10 ewes per hectare), look at ways of reducing stock numbers that will not have a negative effect on profit.
- On average, anywhere between 6% and 10% of ewes will be barren at scanning time. Consider selling these, rather than carrying them over empty.
 - At lambing time, there will be a number of ewes that lose lambs or haven't enough milk to rear lambs. Again, consider culling these quickly to reduce grazing pressure.
 - Ewe lambs retained as replacements, but scanning empty, could also be earmarked for slaughter to avail of strong lamb/hogget prices.
 - Consider selling ewes scanned carrying single lambs if stock numbers are still too high.
 - It is unlikely, we hope, that fertiliser prices will stay this high and there will be opportunities to restock by keeping extra ewe lambs etc in the autumn of 2022.

Build resilience into your system

The coming year will be an opportunity for sheep farmers to take stock of their production system. Look at what is working and what is not. All farms have things that can be done better.

Use this opportunity to map out how you can make your farm more resilient into the future. Investment in soil fertility, incorporating clover, upgrading grazing infrastructure and using better genetics will all improve the sustainability, profitability and resilience of your farming enterprise.



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Monitoring Negative Energy Balance

Maeve Regan, Head of Ruminant Nutrition

The Transition Period

The current focus on farm is to have a spring free from any upsets and nutritional issues, during an already busy time for farmers. Several key factors will correlate directly to the success of the calving season including:

1. A planned and well executed dry cow mineral programme
2. Calving down the cow in the correct body condition score
3. Excellent animal husbandry in the weeks pre- and post-calving (no additional stressors)
4. Careful transition diet planning

Key decisions made over the next few weeks will have a direct impact on the performance of the entire lactation, especially on herd fertility such as submission and conception rates.

Negative Energy Balance

In the weeks post-calving, cows will produce more milk than their feed intake can support, often resulting in body condition loss due to negative energy balance (NEB). For example, a cow will typically reach peak milk output 6-8 weeks post-calving but will only reach peak dry matter intake 10-12 weeks post-calving. Research has shown that NEB will firstly reduce milk protein and if prolonged, have detrimental consequences on fertility due to the loss in body condition.

The freshly calved cow must have an adequate diet to keep body weight loss less than 0.5 BCS between calving and breeding. Cows that lose < 0.5 BCS (approx. 25 kg) typically ovulate 15 days earlier than those that lose 1 BCS during the same period. Dry matter intake typically increases by 0.75 – 1.0 kg/week post-calving, highlighting the need for an energy-dense transition diet. Ensure freshly calved cows have access to high quality silage, alongside an adequate concentrate supplement (dependant on milk output), with increased focus on getting an inclusion of high energy grazed grass back into the diet also.

Monitoring NEB On Farm

1. Falling/low milk protein levels.
2. Body condition loss across the herd.
3. Bulk tank milk fat to protein ratio ≥ 1.4 (Calculated by dividing the milk fat % by milk protein %.)



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