

Questions and options

When you have a shortfall, concentrate feeds can play a role in bridging the fodder gap

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Can concentrates play a role?
If you have 80% or more of the forage needed, then forage and/or concentrate can be used to fill the gap, depending on what's the best value and your feed space capacity.

Cost or value?
The total cost of any feed is the price plus any costs incurred from the time of purchase to feedout. However, the value of a feed is what it is worth at a particular point in time, compared with other feed sources that could be used to replace it, again allowing for all the costs incurred until feedout.

How do you value feeds?
The value of a feed is determined by the cost of energy and protein. Teagasc uses barley and soya as the base feeds, others use soya hulls and distillers' grains. The end result is very similar.
It's important that feeds are valued based on local prices. Contact your local advisor for advice or use the interactive calculator "relative value of feeds" on the Teagasc website.

What's the significance of quality?
• Firstly, define what quality means: with grass silage, good preservation is always important but the importance of dry matter digestibility will depend on the category of stock it is being fed to, e.g. dry suckler cows v autumn-calving dairy cows. This is where forage analysis and/or visual assessment of the ratio of leaf to stem is important.
• Get forages/wet feeds analysed for nutritional value: for conserved forages key parameters include preservation, dry matter, DMD and crude protein.

• If it is not possible to get laboratory analysis, get the history of the crop – sward quality (old pasture v reseed), when was it last grazed, cutting conditions, etc.

How much dry matter are you getting?
For example, if you are buying a wet feed at a quoted price and dry matter of €100/t and 50% DM, respectively. This feed is costing €200/t of dry matter. However, if that feed is only 45% dry matter, the cost is €222/t DM or 11% more than initially thought. You are still only paying €100/t but a bigger proportion of every tonne is water (550kg water per tonne v 500kg water per tonne).
If you are getting batches of a feed over the winter it's a good idea to measure dry matter regularly to ensure quality is consistent.

How much wastage will there be?
This can vary from 2% losses for stored grains to between 20% and 25% losses for a standing crop of grass silage from standing until feedout.

What risks are associated with buying a particular feed? Is the feed that you are buying of consistent quality? Barley straw, as in most years, is likely to be of consistent quality. However, baled silage is of very variable quality and is commonly referred to as "lucky bag" silage. Likewise, if growing a crop of forage rape, are you guaranteed good yield and quality, compared with buying straw and meals to fill the gap? The meals and straw option is less risky.

What is the cost of money?
If you buy a feed today and it's not to be fed for six months, there is a cost on that money.

Do I buy on a per-acre or per-tonne basis?
If you are buying a standing crop of any forage, it is important to buy it on the basis of yield rather than acreage. Would you buy ration from the local merchant without weighing it before leaving the yard? Buying on a per-acre basis is fraught with risk. It is difficult to estimate field yield



without measurement. Likewise, for silage bales, there is significant variation in weight and dry matter content.

Have I overlooked any costs?
Costs incurred after buying any feed include storage costs; transport costs; storage losses; capital costs (i.e. borrowed money tied up in feed that may not be fed for six months); storage treatment costs (e.g. acid treatment); processing costs (e.g. rolling); balancing for protein and minerals and storage losses and labour/machinery costs for feedout.

Table 1: Valuing whole crop

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|---------------------------------------------------|-----------------|
| Grain yield (4 tonnes @ €165/t ex combine) | €660 |
| Straw value per acre on the ground | €85 |
| Minus harvesting cost | -€110 |
| Total value to the tillage farmer | €635/acre |
| Total costs to the livestock farmer = €630 + €115 | €745 |
| Expected utilisable yield of a 4t grain crop | 5.1 t DM / acre |
| Cost per tonne DM | €146 |
| Harvesting and ensiling | €115 |

Wholecrop cereal silage

Type of crops to use:
• Use high-yielding crops, minimum three, and preferably four, tonnes of grain per acre. A high-yielding winter wheat and a high-yielding spring barley crop will give similar (excellent) performance, provided grain yield is at least 50% of the total DM yield.
• Poor grain yielding crops will result in low-quality whole crops with a feeding value similar to 60 DMD silage.
• The feeding value of whole crop cereal silage can be inferior, or superior, to grass silage. The difference in nutritive value is predominantly determined by the content of developed grain. Winter wheat and spring barley, both at 50% grain in the harvested DM, can provide similar and excellent nutritive value.

Harvesting
• Harvesting should not take place until after the cereal grain has progressed beyond the milking-ripe growth stage. Harvest crops at the "soft cheddar" consistency.
• A direct, precision chop harvester is preferable. Mowing and picking up will lose grains.
• Only crops with a DM greater than 50% require grain processing, i.e. a grain cracker on the harvester.

Ensiling
• Preservation does not require an additive. An additive may be needed if the crop is cut very dry, i.e. grain DM less than 30% OR if the silage is to be fed out during warm weather, i.e. late spring/early autumn.
• Whole crops need to be well compacted and weighed down. A short chop length will encourage good preservation.
• A narrow pit is preferable. Lay vermin bait around the pit.

Valuing whole crop
Estimate grain yield from previous experience or by comparison with other crops harvested on the farm. Better still, harvest a strip of grain off the field, weigh it and measure the yield from the area harvested.
Growing crops on contract presents a win-win opportunity for livestock and tillage farmers. The new contract forage template, developed by Teagasc, provides a methodology where both the grower and the purchaser can be confident the contract contains the most important points and is laid out in an easy-to-use format ready to sign when completed. See Table 1 (left).

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