

Build your own bail-out

Baled silage has huge advantages as a fodder reserve but wrap it well and handle with care

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The capacity to cope with extended winter housing, whether caused by soil conditions or delayed spring growth, is important. Concentrates can be used to “spin-out” limited fodder supplies, but securing forage reserves above what is needed for an average feeding period is sensible. There are a few points to consider when planning for forage reserves:

The level of reserve needed depends on factors such as climate, soil type, grass type (old pastures deliver less spring growth), animal enterprise, stocking rate, the ability to purchase forage and the scope to extend limited reserves with concentrate feeds.

While reserves can accumulate as a result of surplus grass growth, or due to short winters, it is important to actively plan to build a reserve.

Reserves to feed for an additional two to six weeks more than an average winter feeding period are common. In 2017/18, even six weeks' reserve may not have been adequate. However, prudent use of concentrates could double the feed period available.

Carrying a reserve from year to year does not imply that you make less use of grazed grass. Consequently, a reserve should not have a negative effect on production and little effect on costs. It is only utilised where needed, avoiding the need for emergency purchases and/or sward damage in times of shortage.

There are some extra costs associated with having a reserve. Some feed losses and extra storage costs are inevitable whether clamp or baled silage is used.

Bales or clamp?

The flexibility of the baled silage system makes it relatively easy to ensile limited areas of surplus grass. Similarly, a bale or two can be used where necessary. So baled silage is attractive as a reserve storage system. However, in many situations, baled silage deteriorates over the second storage season due to a loss of anaerobic conditions... air getting to the silage.

Silage correctly ensiled as a bulk clamp has one major advantage; where it is well preserved initially, undisturbed and well-sealed, it is usually at much less risk from storage losses due to air getting in. However, where the reserve is from a part-used clamp, aerobic losses before resealing can be significant. Also, the physical farmyard layout can make it difficult to access the reserve in the next feeding year, risking more losses every time it is resealed.

Where farmyards and feed storage areas are being changed, it is worth considering layouts that facilitate efficient storage of fodder reserves.

Managing baled silage as a reserve storage system

Baled silage has 50% of the silage volume within just 12cm (five inches) of the covering polythene. This makes the protection of the polythene seal vital with any baled silage system, but particularly if bales may be kept for a second season, which applies if they are being used as a reserve.

Any baled silage reserve which is not used in the first winter, should be used the following season and a new reserve built up.

Plan carefully where bales are being stored or stacked. If you can take bales for feeding from alternate ends of the bale storage area in successive years, then a single stack is workable. However, if access is more convenient from one side, it is useful to build a separate “reserve” stack to one side to allow it to be accessed first, if it is unused into a second season.

Consider using extra film on the bales used as a reserve. Teagasc research has shown that four layers of polythene is generally adequate in



Dermot Forristal advocates extra wrapping for long-term storage of bales.

single-year trials; but that there was always less mould recorded where six layers were used. Where the silage may be stored for more than one winter, consider using six layers on the bales. One Teagasc trial on two-season storage showed a huge reduction in surface mould where six layers was used on wet bales that subsequently became misshapen.

If six layers are to be used on the reserve amount (e.g. four weeks or 20% reserve assuming a five month winter), that will need to be continued each year as the reserve is recycled. The extra polythene would add about €1.25 per bale to the cost of the reserve bales or €0.20 per bale if the cost is spread over all bales stored.

If the planned reserve has not

stored well (polythene damage, with evidence of increasing mould), if there is an option it is better to use it or sell it (if there is a market) as it will deteriorate rapidly over a second season.

Attention to detail

While all bales should be carefully ensiled, be particularly careful with those that may end up being stored a second season. If a contractor is involved, his work must be monitored.

- Wilt rapidly to between 30% and 35% DM to maximise the DM in each bale and to produce well-formed bales that will retain their shape.
- Bale carefully to give tight, well-shaped bales and wrap carefully with sufficient film to give a full four or six

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layer cover (check wrapper control unit setting).

- Handle bales with extreme care; ensure that equipment does not damage the film and that operators are completely focused on protecting the polythene. Transport and store immediately after wrapping. Minimise the number of times the bales are handled. Stack the bales carefully. Examine them for damage and repair carefully where necessary.
- Prevent bird damage in the field and bird/rodent damage in storage.

Baled silage is expensive; it pays to conserve high-quality silage and it is vital to bale, wrap, transport/handle and store it carefully to avoid losses. This is particularly important if silage is to be stored for a second year.