

410.01

Why Big Bale Silage?

Silage making in a nutshell

The aim of silage making, whether bales or clamp, is to preserve the crop using lactic acid bacteria to ensure rapid fermentation in air free conditions. Once the crop is cut, it loses nutrient value as plant respiration and enzymes break down the sugars to water and CO₂ and protein into non protein nitrogen. Rapid wilting and ensiling minimise losses by quickly creating acidity that inhibits undesirable bacteria and further respiration. Aim for a pH of 3.8-4.3 depending on the dry matter.

Big Bales – the pro and cons

Pros:

- Quality of big bale silage can be as good as clamp silage if well managed,
- Lower aerobic spoilage losses compared to clamp
- Multi-cutting dates allow optimum cutting date for each crop
- Able to target quality to livestock needs and balance diets effectively
- Low storage costs – store almost anywhere but **not** within 10m from water course
- Low pollution risk – especially high dry matter bales
- Low dry matter loss (<5-10%)
- Sell surplus to boost income, or target a market for sale

Cons:

- High unit costs
- Not suitable for very wet silage
- Labour/time at feeding out
- Risk of variability between bales
- Prone to damage
- Plastic disposal; cost –and compliance with waste regulations.

Clamp silage

Pros :

- Speed of harvest (large scale)
- Consistency
- Suitable for a range of DMs
- Mechanical feed options

Clamp silage

Cons:

- Capital outlay
- Higher dry matter losses than bale (25% vs 8%)
- Labour/machinery at harvest & ensiling
- Face heating/mould development

Reap the benefits... big bale tips:

Mow after dew has dried off and do not leave crop down for more than one night

Do not set mower, or pick up reel too low to avoid soil contamination

Wilt quickly to 35% DM & row up into even 'box ' shaped swaths

Use an inoculant to increase speed of lactic acid fermentation and improve silage protein quality

Dryer crops are lighter, but are more prone to moulds and less efficiently used by livestock

Bale at the highest density or consider chopping (8-12% heavier than un-chopped)- save costs and space. Chop and net stemmy material. Net wrap speeds up baling

Wrap -as soon as possible at store site, and stack more than 10 m away from water course

Use 6 layers of wrap to ensure quality **and** minimise listeria contamination

Consider green or white wrap to reduce heat of bale surface and minimise spoilage

Handle and store to avoid damage to film wrap to prevent air spoiling silage

Minimise handling of red clover silage – do not 'condition'

Carefully stack wet silage (<25%DM) on end and only one bale high; but >35% DM can be stacked 3 bales high.

Net top of stack to prevent bird and rodent damage

Remove mouldy or spoiled silage before feeding to livestock