

Making late silage

It can pay to make bale or pit silage into October and beyond

Teagasc Grange

Grass is best-served fresh and grazing is the cheapest way to get good feed into animals cheaply. Extending grazing into the autumn when conditions and grass growth allow shortens the winter, reducing the number of days you are feeding indoors. So far, so obvious. But if you have surplus grass available (beyond what you need your closing covers to be) it can make sense to consider ensiling it as pit or baled silage.

Late autumn grass is usually very leafy with low fibre and high protein, particularly, if it is growing in paddocks that have been grazed down in the summer. It will be very lush and wet and ideally should be wilted before ensiling. This might be easier said than done of course. As we get further into September and October it will be hard enough to get the dew to lift off the grass let alone expect too much wilting from a weakening sun.

Bales or pit? It is possible to make both bales and pit silage in the autumn...if you only have a small amount of grass, bales are the obvious choice. Remember, however, that moisture content will inevitably be



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quite high. Bales of silage could be as heavy as a tonne. Take this into account when planning to handle them.

Also be careful about effluent loss from bales or pit silage. You may need to include 'drainage' within the pit of silage to prevent moisture "pooling" within the pit or the silage "splitting".

Growth rates

Table 1 shows dry matter (DM) yields

Table 1: Yield (DM – dry matter) and digestibility (DMD%) of grass swards managed for silage production

Harvest date	Days from closing, or previous harvest	Yield (tonne grass DM/ha)	Growth rate (kg grass DM/ha/day)	DMD% (grass)	DMD% (change per week)
Schedule A					
22 May	49	5.42	111	75.5	-2.4
3 July	42	3.37	80	74.9	-1.1
14 August	42	2.08	49	74.2	-0.6
16 Oct	63	3.45	55	75.3	-0.3
Schedule B					
12 June	70	7.77	111	68.4	-2.4
14 August	63	4.73	75	70.6	-1.1
16 Oct.	63	3.71	59	75.0	-0.3

The main point of interest here is the October data. Source: Teagasc Grange.

for a perennial ryegrass and two old pasture swards average over a five-year period. The same fertiliser input and harvest dates were used for each sward type. All soils had satisfactory values for P, K and pH, and the stubble was bare at the start of each growth.

Two harvest schedules were used – one to harvest leafier grass and the other to take fewer harvests with heavier yields. Of course, 2018 has been far from a typical year. People might be taking second cuts which are far lighter than a second cut made in July. Nonetheless grass growth rates from now forward at around 50-60 kg grass DM/ha/day (moisture permitting) and silage can still be made.

Note, these are yields of grass, and values for silage DM consumed by livestock should be at least 75% of these values.

Harvester systems

Later cuts of silage can be equally successfully made with a precision-chop harvester, a pickup wagon or

CALCULATING SILAGE STOCKS ON THE FARM

First calculate the volume of silage in the pit. For example, a silage pit with measurements 28m long X 10m wide by 2.4m depth. Volume = 28 X 10 X 2.4 = 672m³.

Select the conversion to tonnes of fresh weight, depending on the dry matter of the silage.

For example if silage is 25% DM the conversion factor is 0.68. If the pit described above has 672m³ that equates to 457t of fresh weight.

baler systems, provided that the principles of good silage making are achieved in each case. Lighter yields of grass may be more economically harvested as bales, although bales made with moist leafy grass can readily weigh a tonne and thus be difficult to handle.

It is absolutely essential that any effluent released is collected and managed securely.

In some situations, it will be worth

Table 2:

Silage dry matter %	Conversion factor
18%	0.81
20%	0.77
25%	0.68
30%	0.60
35%	0.53

Table 3: Weight of silage bales

Grass silage	Weight
Chopped 25% DM	720kg
Chopped 30% DM	650kg
Unchopped 25% DM	660kg
Unchopped 30% DM	580kg

considering baling grass harvested in late autumn and then feeding these bales to livestock immediately after they are housed.

Wastage

More care than usual will need to be applied to covering and sealing late grass in silos (and bales) this year in order to minimise the amount of waste occurring. If 10cm packed grass rots on the top of a 2.5m high

Options when short of silage

- Buy silage, but this can be a bad choice if available silage is over-priced and poor quality.
- Offer straw and concentrates.
- Buy alternative feeds.
- Extend the grazing season where possible.
- Sell stock.
- Restrict access to silage and make up the shortfall with concentrates (often the best option).

What about maize?

- At a concentrate price of €230/t good quality forage maize (30% DM, 25% to 30% starch) is worth €45/t.
- If the price of concentrates rises/falls by €20/t the value of forage maize increases/decreases by €4/5.

clamp, that represents 4% of your feed that is unnecessarily lost.

If silage heats noticeably at the silo face or feed trough during feedout, that could readily represent a further 5% loss of feed. These losses are preventable by attention to detail when properly covering/sealing silos and when managing the silage face during feedout.

In some situations, it may be convenient to cleanly collect and feed silage effluent. Such effluent has an average feed value of 18 litres being equivalent to 1kg rolled barley grain.

Later cuts harvested into late September or October can be more difficult to preserve, especially if they have a high content of white clover. These tend to be very leafy, vegetative crops, with high moisture contents and buffering capacities. The cooler nights (heavy dew) and shorter days make successful wilting more difficult to achieve. If these crops have low sugar contents then they will require either an adequate wilt or treatment with an effective preservative – a sugar- or acid-based additive.