

# DAIRY

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Edited by  
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## Don't delay first-cut silage

On first-cut silage, delaying the cutting date will have a negative effect on quality and quantity. Management decisions around first-cut silage yield should be made on the basis of meeting DMD targets and improving annual grass tonnage per hectare, rather than focusing solely on the bulk of an individual cut. Using a 'one big first-cut' approach to make silage increases the risk of fodder shortages, because second-cut yields and annual grass production are reduced by pushing first cuts into mid June.

**Table 1** outlines typical quality targets and corresponding expected DM yields for first-cut silage crops. Differences in yield due to cutting date will generally be offset by heavier second-

cut crops on swards cut earlier for the first cut. In some circumstances (e.g., silage-only land blocks), earlier cutting will also facilitate a third cut in late August, further boosting total annual silage production.

Spring-calving dairy herds need about 0.8t DM of 68-70 DMD silage per cow for dry cows. All of the remaining silage should be high quality for feeding in early and late lactation, and to cover periods of grass shortage (72+). When young stock silage is included, at least 50% of the total silage will need to be high quality in a typical spring-calving system. This will increase for farms at higher stocking rates, or farms operating on heavy land.

**Table 1: Guideline grass silage DMD for different classes of dairy stock.**

	Dry cows	Spring cows in milk	Growing heifers	Winter cows in milk
DMD (%)	68-70	72	72	75
Typical first-cut date	Early June (or second cut)	Late May	Late May	Mid May
First-cut yield (t DM/ha)	5.5-6.0	5.0-5.5	5.0-5.5	5.0*

\*Assuming grazed in late autumn, not spring.

Grass growth stage at harvest is the most important factor deciding silage quality. Once seed heads appear, DMD will be 70% at most, and will drop by one percentage point every two to three days after that. Therefore, the

advice to improve average quality is cutting from mid to late May, rather than into mid June. With meal prices predicted to remain very high into next winter, this is not a year to compromise on quality.

## Are you taking on the clover challenge?

Given the interest in establishing clover on farms to reduce chemical nitrogen (N) use (potential savings of 100kg N/ha) and increase milk yield (+20-30kg milk solids (MS) per cow), April saw the roll out of Teagasc Clover Farm Walks across Ireland to support farmers incorporating clover into existing grass swards. The key messages for clover establishment were:

- N applications can be cut back to half rate on grass-clover swards from May onwards compared to grass-only (where clover content is 20% on dry matter basis);
- planning a clover establishment programme over four to five years is critical; and,
- management is the biggest single factor affecting the success rate of clover establishment in year one. Clover needs light, so pre-grazing yields should be 1,200-1,400kg DM/ha and grazed down to 4cm every rotation.

Farmers wanting to oversow clover into grass swards now should consider:

- ▶ choosing the right paddock – high perennial ryegrass sward/recently reseeded, open sward, low weed burden, optimum soil fertility;

- ▶ choosing the right time – damp conditions for germination, after excellent graze out, April/early May;
- ▶ method can be either broadcasting or shallow stitching in (less than 10mm) at 2.0-2.5kg/acre seeding rate – selecting recommended varieties (see page 24 of clover booklet sent out last month);
- ▶ grazing at 800kg DM/ha on the first grazing, plus at 1,000kg DM/ha for next three grazing rotations; and,
- ▶ reducing fertiliser rate to nearly half for two rotations (12 units N/acre per 20-day rotation).



*Padraig McCormack (Teagasc advisor) and Michael Gowen (host farmer, Kilworth, Co. Cork) address attendees at the Clover Farm Walk on April 14.*

Use protected urea.  
It's 25-30% cheaper than CAN



To help reduce age at slaughter, graze grass at 8-10cm



Only set clover on high P & K index soils with a pH of 6.3+



Target a late May silage cut for good yield and quality



Check that silage effluent collection and storage facilities are working properly



Apply 15kg S/ha to cereal crops to improve N efficiency and crop yields



## HEALTH & SAFETY

### May is a high-risk month



May is the month when silage making commences. It is a high-risk month when safety planning is needed. There is a lot of machinery movement, both in the farmyards and on public roads, so knock-down, roll-over and crushing accidents are possible. Make sure that there is a clear view for drivers at entrances/exits to public roads. Warn oncoming traffic of dangers, but warning devices such as signs and bollards should not be placed on a road surface. Farmers and contractors should discuss safety matters in advance. Watch out for blind spots where collisions could take place. Stop immediately if any dangerous work takes place and resume only when safe. Keep family members, particularly

children and elderly farmers, well away from moving machinery. Ensure that farmyards are tidy to allow efficient machinery movement. Remember too that speed kills – make sure that machinery movement occurs at a steady pace.



Manage safety at silage making.

## RESEARCH UPDATE



### Milking efficiency of dairy farms

JOHN UPTON of Teagasc Moorepark looks at some interesting results from a Teagasc milking study.

Milking occurs on twice-a-day herds anywhere from 600 to 730 times each year. We know that over one-third of the total hours required to run a dairy farm is spent milking cows. Therefore, milking efficiency is important to all dairy farmers. In addition, research from dairy farm employees shows that finish time is important from an attraction and retention point of view. Considering that evening milking is the last task of the day for most farms outside of calving time, the start time and length of milking is very important in terms of attracting people to work on dairy farms.

A recent study from 30 commercial dairy farms has found some interesting results in relation to milking efficiency. **Figure 1** shows a big variation

in the number of cows milked per hour, from 10- to 40-unit herringbone parlours. Highlighted in red we see 20-unit parlours milking anywhere from 50 to 130 cows per hour. This shows a massive difference, particularly where you would expect to see one milking operator.

#### What is causing the cows milked per hour variation?

Automation is often mentioned as a reason for output per hour differences. If we take automatic cluster removers as an example, in this study, nearly all of the farms had automatic cluster removers. However, cluster take-off settings may be set differently and have an impact on the number of cows milked per hour. System vacuum level, stimulation and pulsation settings also differed considerably. Other areas that must be analysed are cow flow and operator

performance. Collecting yard design should allow cows to enter the parlour without intervention and exit smoothly (ideally directly back to the paddock). This has a big effect on milking duration. Seemingly small differences (six to eight seconds per cow) in operator routine per cow will add up to large differences in total milking duration, so this should be looked at also.

#### Do more units equal higher efficiency?

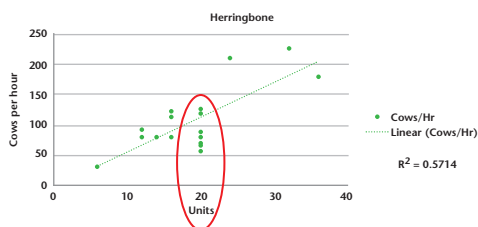


FIGURE 1: Number of milking units and cows milked per hour.