

Teagasc Notes for week ended Friday January 10th

Lessons Learnt from 2018

The disruptions caused by early season snow, abject spring grazing conditions and drought-induced summer feed crisis, in 2018, will live long in the memory. It is timely to reflect on the past 12 months and identify opportunities for increasing the resilience of our farming systems. If as predicted, our weather becomes more variable with increased extreme weather events, then we must ensure that our farming systems are resilient to weather shocks. So what are the lessons learnt?

Do not ignore a seemingly small deficit in winter feed budgets

It is clear from discussion with numerous groups that auditing of forage supply versus potential demand does not routinely take place. This is particularly risky where cow numbers are increasing on-farm. Also, there is a definite trend to '*hope for the best*' when completed budgets identify deficits of 10-15% or less. A key lesson from spring 2018 is that relatively small proportional initial shortages can turn into a complete lack of feed for a period by the end of winter (for example running a 10% feed budget deficit may equate to two weeks full feeding). This can be avoided by better planning. Completing a winter feed budget and reviewing in early January should be standard practice on dairy farms. Taking early action to address even moderate deficits will prove beneficial.

A reserve of high quality forage simplifies feeding decisions

Prolonged feeding of silage to lactating cows was a costly and time-consuming necessity during spring and summer 2018. While quantity of feed was the immediate concern, farms that lacked a supply of quality silage were affected to a greater extent. Firstly, margins over feed cost were eroded by a combination of lower milk solids output and increased concentrate feeding rate. Poorer quality silage also increased labour/complexity of feeding arrangements because a third concentrate feed was often required to balance cow nutrient requirements at peak milk production. In contrast, where high quality silage was available, milk yield could largely be maintained by simple in-parlour concentrate feeding at moderate rates. There has been a common assumption among spring calving dairy producers that silage quality is much less relevant than '*bulk in the pit*'. However as stocking rates increase, the balance of dry cow versus lactating cow silage begins to shift towards a greater demand for high quality forage.

Avoid panic buying when faced with fodder shortages

Feeds are always best valued on the basis of net energy (UFL) and protein (PDI) content per kg dry matter, discounted for potential losses. This can be done using barley and soya as reference feeds (<http://interactive.teagasc.ie/Open/FeedStuffs>). Consideration should be given to functional fibre (NDF) characteristics if forage is in short supply. Of course, value considerations tend to go out the window when faced with a crisis and limited availability of fodder. So the advice has to be to recognise the emerging problem early, identify a workable solution and then to act decisively. Delayed action will limit the available options. Buying forage on a *per-acre or per-hectare* basis is fraught with risk due to potential yield variation. A major lesson for dairy farms from summer 2018 is to build feed reserves during favourable market conditions to alleviate risk of panic buying.

Forage reserves are essential but separate to optimal stocking rate

A common refrain during 2018 has been that weather-induced feed shortages are proof positive of excess stocking rates in general and on dairy farms in particular. To address this, it is first important to define how excess stocking rate is measured. A reliable rule of thumb is that one livestock unit requires approximately 5.5t DM forage grown to meet annual demand. Therefore a farm capable of growing 11t DM per ha can support up to 2.0 LU per ha on a whole farm basis. Increasing herd size on a fixed grazing platform area therefore requires improved pasture production, additional 'support block' area for silage, or a combination of both. While there is certainly a cohort of dairy farms which

are stocked in excess of average grass growing capacity, the primary cause of feed shortage issues has been a combination of extended poor growth rates *allied* with lack of feed reserves.

Annual grass tonnage deficits are approximately 0.8 and 3.0t DM per ha for Ballyhaise and Curtin's farm respectively in 2018. For farms in the South East, this year's deficit equated to 1.0 to 1.2t DM per LU for well-stocked dairy farms. A guideline would be to carry 50-70% of this figure (500-800kg DM) as a feed surplus, above the normal stocks needed to balance the system. This would be built up over time and vary with degree of risk per farm.

The prevailing view among interviewed groups was that stocking rate, where previously aligned with grass potential, would not be significantly curtailed in 2019 to build forage reserves to this scale. Instead, farms would look to external sources to fulfil this function. Options include contract growing of silage or maize/ whole-crop silage. However the risks associated with *per acre* arrangements must be addressed up front. Contract rearing of heifers is an alternative approach to help build reserves that carries numerous other benefits. It was noted nonetheless that the cost/benefit of purchasing feed to retain low-performance animals (high SCC, late calvers in particular) must seriously be questioned. In summary, the consensus is that farms should aim for stocking rates to allow forage self-sufficiency on a 5-year average, building reserves from external sources where feasible.

Labour is now a year-round consideration on dairy farms

This year's back-to back weather issues effectively created a 10-month feeding period, with just a few weeks respite in between. This added significant pressure to already stretched resources. For many farms, workload was a greater problem than actual feed supply (*'money can be borrowed, feed can be bought, but labour can't be found'* was a telling quote). Among the interesting observations were that labour should now be considered a year-round challenge, and that the *'me plus help for the spring'* model leaves no room for shock events.

It is worth investing in workable facilities

Closely aligned to observations on weather effects on workload was the discussion on optimal facilities for herd management in poor weather conditions. Clearly, proper investment in workable facilities increased capacity to cope with adverse spring weather and summer drought. However, defining optimal becomes the essential debate in this context, especially for new or expanding dairies. The 'bottom line' facilities identified, in order of investment priority¹ are summarised as:

Investment	Comment
Grazing infrastructure	Increase grazing days in poor conditions. High return rate plus labour saving. Priority investment
Parlour feeders	Simple batch feeding system adequate. Easy supplementation up to 6kg DM per cow per day.
Linear feed space	Up to 0.7m per cow, simplify buffering and restricted silage feeding. In-paddock silage feeding preferred during dry conditions
Power supply/ generator	Essential, depending on location

Forthcoming Events

1. Calf Care Event on the farm of Tom Egan, Ballykeefe, Cuffesgrange, Co. Kilkenny on Tuesday the 15th January starting at 11am
2. Once a Day Milking Conference at the Horse and Jockey Hotel on Tuesday 15th January starting at 1.00pm
3. Achieving Profitable Beef Production at the Springhill Hotel on Tuesday the 15th January starting at 7.45pm