

# BETTERfarm Beef Programme

BUSINESS, ENVIRONMENT, TECHNOLOGY through TRAINING EXTENSION RESEARCH

## Reviewing progress in 2013 on BETTER Farms



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December provides a good opportunity to review how the year has gone on the farm. There is no substitute for having thorough physical data on animal performance, such as weight

gains at grass, turn-out and housing weights, and having the calving index up to date for the breeding herd.

### Weighing

The programme farms are finishing off the final weighings for cattle that were housed in December and once all weights have been collated by the programme advisers, we will feature the cattle performance over 2013.

It is important to always weigh cattle at the same time of day and similarly they should be weighed at the start and end of the sea-

son, when they are housed. Weighing indoors means that cattle are generally on a uniform diet and will allow for the gut fill effect that can be present with cattle coming off grass in autumn/early winter.

Weight recording will provide information on grassland management and sward quality, herd health, genetics of the herd and the milk yield of suckler cows.

These are factors that should be considered when selecting cows for culling, along with the usual reasons, such as age, udder problems

or temperament. As always, knowing the weight of cattle allows the farmers to complete sale budgets, or to

**“There is little point in retaining cows that calve every 14 to 15 months as they reduce the profitability of productive cows that calve every 12 months**

determine the cost of winter feeding. This can indicate the best time to sell cattle on individual farms.

### Fertility

Using calving reports is a good indication of herd fertility. While every cow in the herd may well produce a calf at some point during the year, this is not a good reflection of cow fertility.

However, having an average calving interval for the herd will provide an overall indication of fertility.

Having the calving survey and marking out the cows

with prolonged calving intervals should also be factored into an annual herd review, as well as a basis for culling cows. There is little point in retaining cows that calve every 14 to 15 months as they reduce the profitability of productive cows that calve every 12 months.

Over the coming weeks, the programme farms will re-evaluate their farm plans using this type of information to make any necessary changes.

This will provide a solid platform for the farms to move forward in 2014.

## ON THE GROUND WINTER MANAGEMENT

**“Regular sampling of animals will provide a better overview of herd health**

Last Thursday, the programme farmers came together at Teagasc's beef research centre in Grange. Providing farmers with advice on farm, in a one to one setting, is an effective method of transferring information to improve management inside the farm gate.

However, the transfer of technical and practical knowledge in a group situation is equally effective, as the farmers within the programme can interact with each other and share lessons learned over the past year.

Discussion groups provide farmers with the opportunity to learn from each other's experience when encountering various problems with grassland, herd health, breeding and cattle management.

The group meeting focussed on a number of topics associated with winter management of cattle.

Padraig O'Kiely gave an overview of silage quality and managing fodder when feeding, while Siobhan Ka-

vanagh provided advice on cattle diets.

Herd health was addressed by James O'Shaughnessy and Finbar Kiernan, who is a practicing vet and suckler farmer from Cavan. The farmers finished off with a tour and update on the maternal suckler herd and beef finishing trials at Grange.

### Silage Quality

Last week, we featured the silage analysis for the programme farms. They had an average silage quality of 71 DMD, 29.5% dry matter and 12.3% protein. UFL for the first cut silage was 0.79.

Silage quality had greatly improved from the 2012 levels of 68.5 DMD, with 10.1% protein and 22.7% dry matter. Compared with the average silage samples from around the country in 2013, the programme farms have a higher quality forage, which should sustain a higher level of performance with lower concentrate inputs.

Padraig O'Kiely commented that silage results are

extremely variable this year, with a number of sample results coming back from labs with a lower feed value than expected. Visual analysis of the forage would indicate a higher feed value.

Silage quality is affected by three factors: digestibility, preservation and the aerobic stability of silage once it is being fed.

### Digestibility

Digestibility (DMD) indicates how much stem or leaf is present in the forage. High leaf content indicates that the grass was harvested at an early stage before it started to produce seed heads.

High leaf content means the silage is easier to digest, therefore cattle intakes will be higher, as will the animal's performance.

Silage at 70 DMD or higher indicates higher quality silage which generally requires lower amounts of concentrate supplementation, and vice versa.

Research trials have shown that 75 DMD silage can sup-



The BETTER Farm participants discuss the merits of beef finishing with Eddie O'Riordan, Teagasc.

port a carcass gain of 0.5kg/day on a forage only diet, compared with silage of 64 DMD supporting a typical carcass weight gain of 0.15kg/day.

At €4/kg, the difference in carcass value between these two weight gains is €1.40/day.

Table 1 outlines the typical reduction in silage DMD due to a number of factors, such as delayed harvesting, poor ensiling practice and pit management.

Grass varieties are important as ryegrass will have double the level of sugars compared with less productive grass varieties, such as bent grass or meadow grass.

### Preservation

Good practice when ensiling grass is also important

in maintaining feed quality. Trials have shown that well preserved silage at 23% dry matter, which is similar to grazed grass in May, supported the same level of carcass gain in cattle at 0.43kg/day.

However, poorly preserved silage led to a loss of feed quality when compared to well preserved silage and grass, as carcass gains were reduced to 0.3kg/day.

Rapid filling of the pit, proper rolling to exclude air and covering the pit immediately once filled, all influenced preservation and improve feed quality.

### Aerobic stability

If silage has a high dry matter (35%+) there is an increased risk of heating and mould forming. As high

dry matter silage cannot be compressed as tightly when rolling, there is the risk of air being present in the pit which will cause the silage to heat.

Once silage heats, it uses up the energy in the grass, making it lower in terms of feed value. Moulded silage should not be fed to cattle due to increased health risks.

### Weaning management

Siobhan Kavanagh outlined that weanlings going back to grass should have an average daily gain of 0.6kg/day during winter. In addition, spring cattle should gain around 20% of their lifetime gain from weaning to slaughter during the first winter period. Store diets should have a protein level of





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WEEK IN REVIEW

- ➔ The breeding season for most early autumn calving herds is due to finish at the end of December.
- ➔ The farms are reporting very little heat activity in cows that have already been served, indicating good rates of conception to first or second service.
- ➔ Farms using AI are still monitoring closely for heats, three to four times per day.
- ➔ Dry cow minerals have now been introduced to spring calving cows.
- ➔ Finishing cattle are starting to come fit for slaughter and will start killing from next week.

➔ Where cattle are housed in sheds with a straw lying area and slatted feed area, they should be penned onto the slats during the daytime. This will help to prevent the rate at which the straw bed becomes soiled and reduce straw demand.

TOP TIP



Limousin x Fresian heifers on Patrick Drohan's farm

FARMER FOCUS

Patrick Drohan  
Co Waterford

I started closing paddocks from mid-October and last week my average farm cover was 386kg DM/ha. The dry conditions helped to graze the swards tight, to prepare them for next spring.

I have two paddocks with covers of 1,500kg DM/ha (10cm) and one paddock with 1,250kg DM/ha (9cm) to be grazed first in the spring.

It was tempting to re-graze some paddocks, but I have to be disciplined as this grass will be more valuable in spring. I housed my cows and weaned my calves on 15 November. The weanlings were penned beside the cows and given 24 hour access to two paddocks beside the shed.

They were offered first-cut baled silage and 2kg of concentrates. I dosed them with an Ivermectin based pour-on last week, as they were coughing a lot.

I suspect it was lungworm as they have stopped now. They will be housed full-time this week and I

will dose them again in three weeks time. They are due to be weighed next week. I was happy with the analysis of my early first-cut silage (20 May) of 78 DMD and 14.1% protein while late first-cut silage (4 July) is 74DMD and 13% protein.

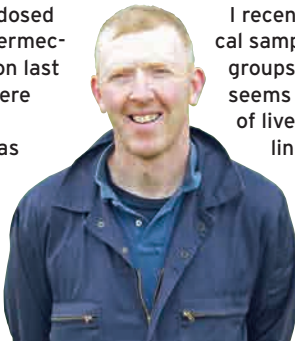
The cows are on average in body condition score of 3.75. They are being restricted to the late-cut, first-cut silage and supplemented with hay and straw. I purchased 10 in-calf Limousin x Friesian heifers in September.

They calved from 10 November to 12 December with seven heifer calves and three bull calves born, which are Limousin bred. These heifer calves should make nice replacements in the future.

With the mild weather, I was able to calve them outside in a paddock close to my calving shed.

I recently took some faecal samples from different groups of stock and there seems to be a presence of liver fluke in my weanlings and rumen fluke in my cows.

I will have to consult my advisor and vet for the best course of action to take.



Frank and Des  
Beirne  
Co Longford

We are busy with winter feeding and dosing here in Newtownforbes. The very mild conditions have led to a few small problems for calves that are in the sheds. We rectified this by removing some tin at the back of one shed to improve air flow.

Along with our vet, who recently completed a course in ventilation, we discovered that air flow was not good in the part of the shed where the autumn calves are housed. We lit some straw in a bucket and watched the smoke rise and billow back down.

It is definitely worth taking a look at inlets and outlets in cattle sheds for air flow. We have kept a close eye on the calves during this time and they have come through fine. We weighed our weanlings two weeks ago and we are very happy with their performance.

Bulls are gaining

0.88kg/day and heifers are gaining 0.85kg/day. They are currently being fed 1.5kg of barley and 0.6kg of soya, daily. This works out as a total of 16% for dietary protein.

I think farmers forget that when silage is not high in protein, and you only feed a 14% ration, there is insufficient protein in the diet for the weanlings to grow. These weanlings will stop getting ration from three weeks prior to turnout and will be moved onto ad-lib silage.

All cattle that are housed have been treated for lice and worms. Based on cattle faecal sample results, we have held off with some of the fluke dosing. We will re-test the negative results to make sure we do not need to dose. Dry cows are being fed 58DMD silage ad-lib and the cows that are due to calve in January are on

0.5kg of soya and are being fed hay up to calving.

Autumn cows with calves are being fed 26kg of silage, 1kg of barley, 0.3kg of soya, 0.25kg of straw and minerals. Young autumn calves are on 1kg of an 18% protein ration.



silage and buying a ration to balance the feed value is important. *Table 2* outlines the level of protein required in beef rations for silages of varying protein levels.

If feeding silage with 10% crude protein and 2kg/day of concentrates as the normal weanling diet on farms, then the ration needs to be 18% protein to ensure that the overall diet meets the target 13% to 14% protein.

Other factors

Front loading meals during the winter period can be a more effective feeding method for weanling cattle that are going back to grass. As cattle have a period of adjusting to a silage diet after a grazing diet, performance can be affected.

Therefore, front loading of meal in the first half of winter can help to prevent the loss of performance, as cattle become acclimatised to the silage diet.

If cattle are normally fed 2kg/day of ration for 150 days, they receive 300kg of meal during the winter. By front loading meal, the animal is fed a higher rate of concentrates during the first half of the indoor period, then fed a lower rate in the second half.

For instance, feeding 3kg/day for the first 75 days and 1kg/day for the next 75 days means the animal still eats 300kg of meal over winter.

Herd health

The importance of animal health at housing was also discussed. Regular and strategic worming of cattle before they are housed is important, as heavy worm burdens can suppress animal immunity indoors, leaving cattle more susceptible to other diseases and viruses.

With worms and fluke, diagnosis should be based on a group, not on individuals within the group. Regular sampling of animals will provide a better overview of herd health and dosing should be carried out accordingly.

Drug persistency is important as is the timing of administering drugs. They should be given in advance of periods of high risk for the best response and cover provision.

With the dry summer this year, there was a tendency on some farms to delay routine

treatments as worm activity was low.

However, the rainfall in August, combined with warm, humid weather, meant a rapid multiplication of lungworms, which caused major problems, such as Hoose, in some herds.

Cattle that had heavy burdens can have permanent lung damage, which will affect breathing, or may lead to coughs lasting for up to two months post treatment.

Getting sufficient quantities of colostrum into the calf during the first six hours of life will improve calf health. Housing ventilation is critical in the control of disease.

Sheds should have a constant flow of air through them to remove warm, moist air from inside buildings. Fresh air can prevent most respiratory diseases, but it is important to avoid draughts when altering ventilation.

Table 1: Factors affecting silage digestibility (DMD)

Factors affecting digestibility	DMD reduction
Delay harvesting by one week	3 units
Old pasture	5 units
Lodging	9 units
Not grazing sward before closing (dead butt)	7 units
Poor preservation	3 units
Heating at feedout	3 units

Table 2: Supplementary protein level required for different silage quality

	Silage crude protein %		
Concentrate feeding rate	10%	12%	14%
2kg/day	18	16	14
3kg/day	16	14	12



13% to 14% in the overall diet of concentrates and silage. The ration protein should be balanced in relation to the silage protein.

For instance, where low protein silages of 9% to 10% are being fed, then feeding 2kg of a 16% ration along with ad-lib silage will only bring the protein level in the overall diet to approximately 11%, which is too low to meet the target daily gain over the winter. This was something experienced on a number of farms last winter.

If the daily liveweight gain of a weanling falls below 0.2kg/day over a sustained period (i.e. winter), the animal is likely to become stunted and its lifetime performance will suffer.

Therefore, analysing the