

BETTERfarm Beef Programme

BUSINESS, ENVIRONMENT, TECHNOLOGY through TRAINING EXTENSION RESEARCH

Spring calving progressing well on BETTER Farms



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The heavy rainfall experienced last weekend has added to the problems of poor ground conditions and slurry storage issues. On drier farms that did manage to get slurry out in Janu-

ary, there is less urgency to spread again, although farmers have said that they would like to get another targeted application of N, P and K onto grassland to stimulate grass growth.

On farms that were unable to get slurry out, storage is now under pressure with the programme advisers reporting that some farms have between two and three weeks of storage left. As more spring calving cows move off slats onto straw bedding and with finishing cattle being sold for slaughter, there has been an easing of the weekly

volumes of slurry produced.

Moving slurry between tanks has also provided a brief respite but this is only a temporary solution. Due to the volume of slurry to be spread and the urgency to relieve storage, there is increasing interest in using an umbilical system to get slurry out.

With spring calving and lambing taking place, there is already a big demand on farm labour. Using the umbilical system can spread greater volumes of slurry and will not take up the farmer's limited time.

Calving

Spring calving is well under way. While there are few reports of calving difficulty, some of the programme farmers are saying that the rate of calving is slower than scanning would have indicated.

With cows running over their time, there is an increased risk of calving problems but, with cows in a fit condition, this is not materialising.

With a lot of cows calving in body condition score (BCS) 2.5 to 3.0, there are a number of the programme

farmers who are opting to feed cows on ad-lib silage for the first two weeks post-calving. This prevents a flush of milk after calving that can cause the calf to scour.

Concentrates are then being provided at a rate of 1kg to 3kg per day based on silage quality, cow condition and the likelihood of getting some cows out to grass as soon as ground conditions allow.

Feeding soya at a rate of 0.25kg/day to 0.5kg/day, depending on cow condition, in the final fortnight pre-calving is being carried out on

some of the farms. This practice has been carried out by the farmers for a number of years and works well where cows are being fed lower protein silage (10% to 11%) or large quantities of hay/straw in the dry cow diet.

The additional protein has boosted colostrum quality. Costing soya at €450/tonne, feeding 0.5kg/cow/day for two weeks will cost €3.15/cow. Colostrum is central to getting the calf off to a good start, especially if the calf is going to be held indoors for at least one month before getting out to grass.



ON THE GROUND PETER LAWRENCE

“Feed requirement of suckler cows varies throughout the year, depending on stage of production”

BETTER Farm programme participant Tom Halpin operates a suckler calf to store beef enterprise and an early lambing ewe enterprise on his farm near Carlanstown, Co Meath.

Since joining the programme, Tom has increased his cow numbers from 80 to 92, which are split with 52 spring cows calving mid-February to April. The remaining 40 cows calve over June and July.

Spring-born calves are sold as weanlings at around eight months of age. However, this year, he decided to keep the heifer weanlings and sell them off grass at 16 months of age. Summer-born calves are sold the following year at 12 months of age.

Tom operates a closed herd (except for breeding bulls) and cows are predominately Simmental crossed with Charolais. They are bred to either a Charolais stock bull with good terminal traits, or a Limousin stock bull bred

by Ronick Hawk with proven maternal traits for replacements.

Grazing challenge

At the beginning of the programme, Tom farmed his own 64ha of land alongside an additional 22ha of rented land on a short term basis.

Rented land was used for silage and grazing sheep. However, Tom lost the use of the rented land in 2013 and, therefore, his 64ha land block had to provide all of his winter feed (grass silage) and grazing for his livestock.

With the increased suckler herd, and with no silage reserves carried over due to a prolonged winter, Tom had to try to grow as much grass as possible to provide for the winter feeding period.

The delayed spring growth affected the grazing rotation and delayed closing up of silage ground, which was closed on 20 May.

As an experiment, 12kg/acre of hybrid grass seeds were stitched into the exist-

ing sward to help boost grass yields on half of the existing sward using an Aitchison seed drill.

Silage harvesting

Silage was not harvested until 5 July. As a result, the second cut silage was not harvested until 5 September.

Overall, two cuts totaling 71 acres were taken and silage quality was relatively good, given the delayed harvest date, at 69 DMD (0.77 UFL) for both cuts.

Tom also had the opportunity to make 12 acres of hay (yielding 150 4x4 bales) during the summer when grass growth and weather allowed. A total of 160 bales of straw were purchased during the harvest to provide feeding and bedding.

In all, 2013 was a difficult year to manage grass as the slow start and two periods of drought in July and September kept Tom on the back foot throughout the year.

With assistance from his local Teagasc B&T adviser



Despite silage quality being good, Tom Halpin has maintained concentrate feeding to summer calving cows to stretch silage supplies. Every 1kg of concentrates is replacing approximately 5kg of silage from the diet.

Ned Heffernan, Tom completed a winter forage budget before the housing period to calculate if enough fodder was on the farm to meet the winter feed demand of his cattle.

Fodder budget

The budget indicated a requirement of approximately 800 tonnes of silage over a five-month winter. Fodder stocks were very tight as there was approximately 600 tonnes of silage ensiled, plus 160 round bales of hay.

Early action was taken to stretch silage by supplementing the summer calving cows with 1kg/day of concentrates when housed and to restrict the silage levels being fed to spring cows.

In late December, another fodder budget was completed on Tom's farm to reassess silage supplies. It was estimated that Tom was using approximately 4.4 tonnes of silage daily and had approximately 300 tonnes of forage left in the pit (50% of

harvested silage). At the current rate of use, this should supply enough silage until early March. Therefore, Tom purchased additional forage to last until mid-April.

Body condition

The feed requirement of a suckler cow varies throughout the year, depending on the stage of production, such as mating/breeding, calving and weaning as outlined in Table 1.

Therefore, the basis of suckler cow nutrition is about manipulating the cow's body condition score (BCS). Building up body reserves during the grazing season when grass is plentiful and mobilising these body reserves (fat) during the winter reduces feed demand and costs.

Tom weaned his spring calving cows in October and, with good grass supplies in the autumn, cows were in good body condition at housing with the general BCS range from 3.0 to 3.25 (where

0 = thin and 5 = fat).

When cows were housed in early November, a diet was drawn up for his cows with help from his advisers based on the energy requirements (UFL/day) from Table 2.

Feed requirements during late pregnancy are for the maintenance of the cow, foetal growth of the calf and, in the case of a first calving heifer, there is an allowance for the animal's growth.

The calf gains between 75% and 80% of its total birth weight during the final three months of pregnancy.

Feed requirement

Tom's cows weigh approximately 650kg liveweight and, therefore, they need to consume 5.8 UFL/day for maintenance alone.

Due to the increased development of the calf in the final stages of pregnancy, the maintenance increases with every month of gestation, as highlighted in Table 1.

However, because they entered the housing period



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WEEK IN REVIEW

- ➔ Another wet week has prevented any improvement in ground conditions which is delaying the programme farmers from spreading slurry and fertilizer.
- ➔ Slurry storage is down to two weeks on some of the farms.
- ➔ Spring calving is progressing well with few problems being reported.
- ➔ Cows in good BCS are being fed ad-lib silage after calving with concentrates being offered from two weeks post-calving.
- ➔ Feeding soya at a rate of 0.25kg/day to 0.5kg/day for two weeks pre-calving is having a positive effect on improving colostrum quality.

➔ Cleaning out calving boxes after use and applying a fresh bed will greatly cut down the risk of scour. Vaccines can prevent scour but are at their most effective when good hygiene is followed. You will spend more time treating calves for scour than you will scraping out a calving box.

TOP TIP



Spring calving cows are being fed 2kg of straw to stretch silage supplies on Tom Halpin's farm.

with a BCS of 3 to 3.25, there is scope to restrict their feed energy intake so that they should be calving down close to the target BCS of 2.5.

It was decided to restrict Tom's cows to 30kg (fresh weight) of grass silage (24% DM) and 2kg of straw. Cows were supplemented with a pre-calving mineral/vitamin mix. In total, the cows were offered 8.96kg of feed on a DM basis.

Energy is measured in units called UFL where 1UFL is equivalent to 1kg of air-dried, rolled barley and the energy content of all other feedstuffs are relative to this.

For this diet (on an energy basis), the cows are consuming 7.2kg DM of 0.77 UFL silage, which equals 5.54 UFL and 1.76kg of straw of 0.44 UFL, which equals 0.77 UFL.

Therefore, the cows were supplied with a total dietary energy intake of 6.3 UFL/day. Table 3 shows the degree to which Tom's spring calving cows are being restricted on an energy basis during the course of pregnancy.

In total, these cows will be subjected to a total loss of 135 UFL from housing to calving in March.

This is equivalent to approximately 175kg DM of silage, or 730kg of silage on a fresh-weight basis.

By costing grass silage at €30/tonne, this represents a feed cost saving of approximately €22 per spring calving cow.

Across the 52 spring calving cows, the total saving from restricting the silage fed amounts to €1,804.

A loss of one unit in BCS contributes about 280 UFL. Therefore, a 135 UFL loss should give rise to a loss of 0.5 of a condition score,

Table 1: Target body condition scores

Production stage	Spring calving	Autumn calving
Calving	2.5	3.0
Turn-out to grass	2.5	2.0
Mating	2.5	3.0
Weaning	3.0 +	2.5

Table 2: Energy requirements of spring calving suckler cow during pregnancy (UFL/day)

Liveweight (kg)	Maintenance	Month of pregnancy (of in-calf cow)			
		6	7	8	9
500	4.8	5.4	5.9	6.7	7.8
550	5.2	5.7	6.3	7.0	8.1
600	5.5	6.1	6.6	7.4	8.4
650	5.8	6.4	6.9	7.7	8.7
700	6.2	6.7	7.2	8.0	9.0
750	6.5	7.1	7.6	8.4	9.4

*Above assumes: Cows housed indoors on slats - if outdoors add 0.5 UFL/day; Calf weighing 45kg at birth; The calf share of the cow requirements are 0.56, 1.08, 1.86 and 2.93 UFL/day for pregnancy months six, seven, eight and nine, respectively; For each 5kg in calf birth weight in last trimester add/subtract 0.25 UFL.

Table 3: Tom Halpin's spring calving suckler cow energy requirements

Feed Supply	Maintenance alone	Month of pregnancy (of in-calf cow)			
		6	7	8	9
UFL requirement	5.8	6.4	6.9	7.7	8.7
Silage 69% DMD / 0.77 UFL	6.3	6.3	6.3	6.3	6.3
Supplied/deficit (UFL per day)	+0.5	-0.1	-0.6	-1.4	-2.4
Accumulated (UFL per month)		3	18	42	72

Table 4: Energy requirements for lactating suckler cow (UFL/day)

Live weight (kg)	Maintenance	Milk Yield (kg/day)					
		5	6	7	8	9	10
500	4.8	7.1	7.5	8.0	8.4	8.9	9.3
550	5.2	7.4	7.9	8.3	8.8	9.2	9.7
600	5.5	7.8	8.2	8.7	9.1	9.6	10.0
650	5.8	8.1	8.5	9.0	9.4	9.9	10.3
700	6.2	8.4	8.9	9.3	9.8	10.2	10.7
750	6.5	8.7	9.2	9.6	10.1	10.5	11.0

which will bring the cows back to 2.75 to 2.25 at calving.

Despite the feed and cost savings demonstrated by

restricting silage to cows in good body condition, it is vital that producers get cows onto a high plane of

KEY POINTS

- ➔ Monitor cow body condition score (BCS) throughout the year - calving, mating, weaning.
- ➔ Aim to house spring calving cows at BCS 3.0 to 3.5 to restrict feed and save on winter feed costs.
- ➔ Group cows to BCS and feed accordingly.
- ➔ Analyse silage quality to determine feed value (DMD/UFL).
- ➔ Where restricting feed supply, ensure there is adequate space so cows can eat at the same time.
- ➔ Offer a dry cow mineral/vitamin mix when feeding grass silage.
- ➔ Complete a fodder budget to assess and monitor feed supply and be pro-active.

FARMER FOCUS

Richard Jennings
Co Mayo

I am almost finished calving the herd with only three cows remaining from a total of 60 cows and heifers.

Cows were housed in excellent body condition due to the mild autumn and good grass quality. There were a few problems calving cows this year with larger than average calves, which I am putting down to cow condition.

The calved cows are being fed 72 DMD ad-lib silage, which has a protein level of 10% and 2kg/day of ration until settled back in-calf. The mixed ration consists of barley, soya, beet pulp and maize.

The calves are allowed outdoors to graze the fields surrounding the sheds during the day. These fields were closed early in October and they are of great benefit to get grass into the calves' diet so that they are ready for spring grazing.

The calves are eating 0.5kg of the ration per



head per day. I also find that they are a lot healthier when they have access to the field during the day.

I started inseminating cows last week. I am using a maternal Limousin sire to breed replacements and Belgian Blue sires on the rest of the herd.

I plan to scan the cows before turnout. A teaser bull is with the cows to help with heat detection as I use 100% AI, so any aid to pick up which cows are coming into heat is a great help.

The ewes were housed last month and are due to start lambing in March. A mixed grazing system works very well on my farm as the sheep can fully graze out paddocks with very little damage. This leads to higher grass utilisation which is helping to improve sward quality.

I scanned the ewes and was happy with the results at approximately two lambs per ewe. By scanning the ewes, it allows me to target the concentrate feeding based on the results. Hence, ewes with singles are not over fed leading to difficult lambing and ewes with triplets can be fed accordingly.

Charlie Crawford
Co Donegal

I have around 50% of the herd calved at this stage. To date, the calving season has been progressing well with few problems arising.

The calves are very lively at birth, quick to start sucking the cows and are also giving relatively little trouble.

I am very happy with the quality of calves born. The heifer calves are looking very promising even at such an early stage and I will hopefully bring them through as herd replacements for the future.

All of the cows received ad-lib silage and 100g pre-calving minerals prior to calving. After calving, they are getting ad-lib silage and 2kg of meal until they are settled back in calf. Replacement heifers were inseminated with an AI Shorthorn bull.

The Shorthorn sire is meant to be easy calving, so hopefully, they will have no difficulties when calving, as this can delay them from coming back into



heat again.

Slurry storage is coming under pressure as I have just a couple of weeks of storage left. I am planning to spread as soon as ground conditions allow, which will be soon, hopefully.

The ewes were housed last month. Traditionally, ewes would have grazed the farm up until early March.

By resting the entire farm, I will have early grass for sheep and yearling cattle when they are turned out again. In preparation for wintering sheep, I installed slats in the shed.

Previously, I would have bedded the ewes with woodchip. The slats will reduce the cost of bedding and overall workload in the long run and will also reduce foot problems at housing.

The ewes scanned at 1.89 lambs per ewe. I am very pleased with this as my ewes are mainly Texel cross.

The ewes are grouped and fed according to the scan result when housed.

I hope to have most of the calving finished by the time the ewes start to lamb as it will put a lot of pressure on time and labour trying to manage both tasks.