

# BETTERfarm Beef Programme

BUSINESS, ENVIRONMENT, TECHNOLOGY through TRAINING EXTENSION RESEARCH

## Feeding cattle for slaughter



**KIERAN MAILEY**  
LIVESTOCK SPECIALIST  
kmailey@farmersjournal.ie

The winter feeding period is now under way on a number of the programme farms. Whether the cattle to be slaughtered are steers, heifers or bulls, the farms will work to the principle

that finishing cattle will be fed for a set number of days.

The younger the cattle, the more efficient the animal is at converting feed into kilogrammes of liveweight. Bulls are the most efficient converters and should be pushed for slaughter, if they are within 200kg of their slaughter weight, over a 150-day intensive feeding period.

### Restricted

As steers are less efficient feed converters than bulls, they will be restricted to an intensive feeding period of 90 to 100 days on the farms.

Feeding high levels of concentrates for any longer than this period will be uneconomic as their performance levels, i.e. growth rate, will be in decline.

This means steers that are being pushed for slaughter are presently around 100kg off their finishing weight. After this period of 100 days, steers will start to lay down fat rather than muscle.

Cattle that are lighter are being stored for a short period, but they still have a target liveweight gain of 0.6kg to 0.7kg/day during this store period. If the daily gain

is any lower, the cattle will not be covering their feeding costs indoors.

With heifers being the least efficient feed converters, the programme farms are restricting them to an intensive feeding period of 70 to 80 days.

### Feeding Costs

The programme advisers will be going through finishing budgets with the farmers to determine which cattle are worth pushing on for a quick finish and which animals to store and finish. The purpose of the budgets will be to

calculate how much feed is likely to be consumed and the costs involved.

Using current input prices, as well as beef and mart prices, an informed decision can be made now on what is the best market outlet for the cattle.

The target daily gain for steers and heifers should be 1kg/day but few cattle will average this over a 100-day finishing period.

In reality, steers are more likely to be averaging 0.9kg/day over the finishing period with heifers averaging 0.8kg/day. At a kill out of 55% for

steers and 54% for heifers, they are gaining 0.5kg and 0.43kg of carcass daily.

With an R3 beef price of €4/kg, this means that steers are generating a daily income of €2 with the heifers at €1.72 per day. Feeding a 650kg steer 7kg of concentrates (€260/tonne) along with 15kg of first cut silage (€25/tonne) will have a daily feed cost of €2.20/head.

Therefore, once cattle are fit for slaughter they should be sold, especially if silage quality is lower as higher levels of concentrates will be required.



## ON THE GROUND

RICHARD WILLIAMSON

“Fewer animals at grass for a second season means I can increase cow numbers”

Where labour is restricted due to off farm employment, time management becomes one of the most important aspects of the system.

In such instances, some farmers will opt for a low maintenance suckler system, that takes advantage of the easy calving traits associated with traditional beef breeds.

While use of breeds such as Aberdeen Angus will appeal to some farmers because of their ease of calving and handling, they do have limited sale options compared with continental breeds.

Selling live through the mart is an option, but generally speaking traditional breeds will not command the same price per kg as a continental animal, and weight for age is often lower. As such, the best option for these traditional type cattle is usually to finish them through to beef.

### Labour issues

Richard Williamson runs a herd of 89 breeding cows on 73ha (180 acres) near Kinnegad, Co Meath. The cows are mainly Simmental and Limousin cross and served with Angus stock bulls. They calve in a 12-week period from mid-February to late April. The calving interval for the herd was 353 days in 2013.

Due to off farm employment, labour is limited on the farm and restricted to evening and weekend work. For Richard, keeping the system as simple as possible is a necessity. Autumn calving is not an option, as winter housing is limited and there is no provision of calf creep areas.

The spring calving dates coincide with the turnout of cows calved, which makes management easier as the cows do not usually require concentrate supplementation at grass.

Richard has opted for Angus sires purely for calving

ease. Cows must be able to calve unassisted. Last year only one cow had to be handled during calving.

### Finishing system

Traditionally, heifers were finished on the farm at 22 months with carcass weights ranging from 255kg to 270kg. Steers were killed off grass at 26 to 28 months. Carcass weight for steers ranged from 350kg to 360kg.

Heifers are normally finished on silage and 3kg to 4kg of concentrates, while steers would be maintained on silage and 1kg of concentrates over the second winter before returning to grass. A group of 24 steers were slaughtered between 11 June and 24 September at an average carcass weight of 355kg.

They averaged €1,493 per head and spent 831 days on the farm, from birth to slaughter, which is a daily income of €1.80 per animal. With such a long duration on farm before slaughter, Richard has experimented with



Angus steers have been traditionally killed off grass on Richard Williamson's farm at 26 to 28 months of age. To reduce the time spent on farm, he has experimented by killing some of the steers as 16-month-old bulls.

finishing a group of bulls under 16 months to shorten their duration on farm.

### Bull beef

A group of 17 bulls were taken through to slaughter in June 2013. The animals selected were the best of the male calves born in 2012. They averaged 323kg carcass weight and consumed 0.75 tonnes (€330/tonne) of concentrates on farm.

The Angus beef scheme premium was available on the bulls and they averaged €1,530 per head. While this initially seems like a more financially rewarding market, the costs of finishing have to be subtracted.

Richard calculated that the finishing cost for the bulls was €400, which brings the bulls back to €1,130. He

is planning to repeat the experiment this winter with another group of bulls, as he believes he can increase their carcass weight to 350kg.

### Reasons for change

Richard believes he can get the bulls to the same weight one year earlier than his steer system. Combined with a higher kill out percentage, there are some merits for bull finishing over steer finishing.

The fact that the bulls do not stay on the farm for a second winter and are finished out of the shed at 16 months, means that Richard can expand cow numbers and increase the stocking rate on the farm, as well as increasing output.

Similarly, the steer system is changing to finishing

animals at 21 to 24 months of age to reduce the length of time they spend on farm.

There are many counter factors against finishing Angus males as bulls. For example:

- ☛ He has a stocking rate of 1.9LU/ha and has suitable and sufficient land to carry the animals as steers;
- ☛ He has to finish the bulls on an ad-lib system as silage quality is 66DMD and not of adequate quality for a bull finishing diet;
- ☛ The ad-lib system caused the animals to become too fat before they were at a suitable finishing weight earlier this year;
- ☛ The bull system is highly volatile and dependent on concentrate price, carcass weight and price. Angus cattle are less suitable for such a



A TEAGASC/IRISH FARMERS JOURNAL INITIATIVE

In association with



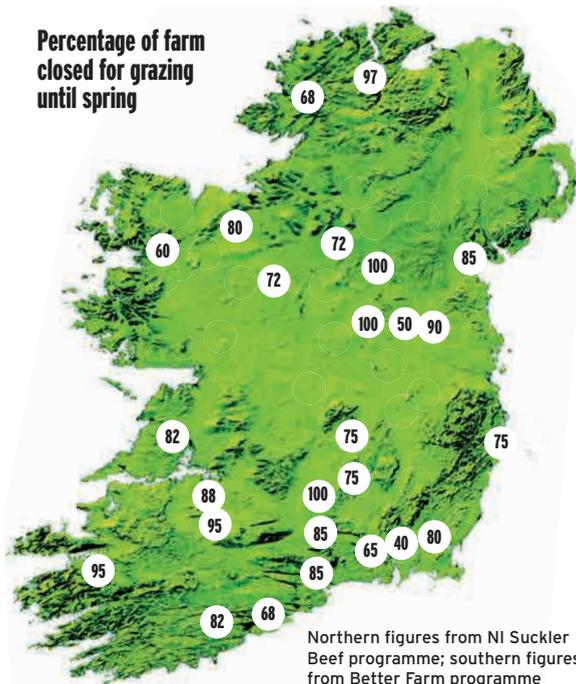
WEEK IN REVIEW

- Finishing budgets are being carried out on the farms to determine which cattle should be fed for a quick finish and which cattle should be stored, sold or return to grass next year.
- Steers will be intensively fed for a maximum period of 100 days, heifers for a maximum of 80 days and bulls for 150 days.
- Rations being used for finishing diets are high in energy (0.95+ UFV) and limited to 14% in protein.
- Rations will be balanced with high quality silage to try and reduce concentrate use.

Where only one ration is normally purchased because of a lack of storage for concentrates, buying a growing ration and diluting with barley will reduce the overall protein levels for finishing cattle and increase the energy levels in the diet.

TOP TIP

Percentage of farm closed for grazing until spring



Northern figures from NI Suckler Beef programme; southern figures from Better Farm programme

FARMER FOCUS

Richard Jennings Co Mayo

My suckler herd has just started to calve in the past week and the workload has increased. I have 16 cows and heifers calved so far, out of a total of 60 breeding females.

The cows are calving down in great condition which is helping to save on silage and concentrates. The dry cows are on baled silage which was cut late in the season and has average feed quality.

The calved cows are on ad-lib silage and 2kg of concentrates. I will continue to feed concentrates until the cows are settled back in calf.

The pit silage will be opened once all of the bales are used, which will most likely be early December. I have all of the cows housed and only 16 weaning heifers remain at grass, along with my March lambing ewes. I started housing cows around three weeks ago, and finished housing them last week.

The cows have

all been bolused prior to calving to cover for selenium, copper, cobalt and iodine. In a couple of weeks, I will treat them for lice and fluke. My plan is to start inseminating cows again from late January and then scan the cows in mid-March before turn-out.

I held onto my bull weanlings for longer than normal this year as there was plenty of grass available. The first group was sold in September with more sold in October.

Only five bull weanlings are left on farm. All weanlings are being sold at a minimum weight of 400kg, with the heaviest weanlings sold at 500kg at 11 months of age.

They were on 2kg of creep since mid-July, so will have consumed around 120kg for the bulls sold in September and 180kg of concentrates for the bulls sold in late October.

At €260/tonne, they would have consumed between €31 and €47 worth of concentrates, but with daily liveweight gains of 1.5kg/day this autumn, it was a worthwhile expense.



Table 1. 16 month Angus bull beef budget

		Value
Start weight		351kg
Start value	(€2.20/kg*)	€772
<b>Store period (135 days @ target gain 1kg/day)</b>		
1st Nov - 15 March	10kg/day silage @ €25/tonne	€33.75
1st Nov-15 March	5kg/day meal @ €250/tonne	€168.75
Weight		486kg
<b>Intensive feeding period (90 days @ target gain 1.5kg/day)</b>		
16 Mar-15 June	10kg/day meal @ €250/tonne	€225
Straw		€9
Haulage & slaughter fees		€50
Vet		€10
Total finishing costs		€1269
Carcase weight	621 kg lwt @ 56% kill out	348kg
Carcase value	@ €4/kg	€1,392
Angus premia	40c/kg	€139
Total value		€1,531
Margin over costs		€262

Table 2. Angus 21 month steer beef budget

		Value
Start weight		351kg
Start value	(€2.20/kg*)	€772
<b>Store period (135 days @ target gain 0.6kg/day)</b>		
1st Nov - 15 March	20kg/day silage @ €25/tonne	€67
1st Nov-15 March	2kg/day meal @ €250/tonne	€67
Weight		432kg
<b>Grazed period (230 days @ target gain 1kg/day)</b>		
16 Mar-1 Nov	230 days @ 60c/day	€138
Meal (barley)	5kg @ 42 days @ €200/tonne	€42
Haulage & slaughter fees		€50
Vet		€10
Total finishing costs		€1,146
Carcase weight	662kg @ 54% kill out	357kg
Carcase value	@ €3.90/kg	€1,392
Angus premia	40c/kg	€143
Total value		€1,535
Margin over costs		€389

\*IFJ mart watch price 02/11-13

system compared to continental breeds; Bulls are too light at housing at 350kg to 380kg liveweight. They are being stored starting an intensive feeding period; Cattle are lacking in growth, which is limiting the carcass weight of animals. Getting sufficient weight to cover feed costs will be difficult.

However, the future of the finishing system will depend on the financial benefits of both the bull and steer systems. Richard is going through budgets for finishing animals before deciding on which system to adopt.

Richard has picked his heaviest 20 of the Angus spring born bulls to possibly finish under 16 months. Their average weight on 29

October 2013 was 351kg. To allow a fair comparison, we will look at these specific weanling male cattle in a steer and bull system, which are outlined in Table 1 and Table 2.

Analysis

This shows a difference of €127/head in favour of the 21-month-old steer system versus the 16-month bulls. The bull budget does not take into account Richard's ability to increase cow numbers in the 16-month system.

The steer system is less vulnerable to increases in cereal prices and also less exposed to changes in beef price. The steers are valued at a lower beef price as they are being sold in November, compared to the bulls being sold in June when prices are

traditionally high. However, the budget makes the assumption that bulls will be in demand in June, which may not always be the case and that both systems achieve excellent lifetime performance.

Farmer's Comment:

If I can finish an animal as a 16-month bull at a similar carcass weight to a 20 to 22 months steer then surely this is more efficient. Fewer animals at grass for a second season, means I can increase cow numbers and farm output. I have tried the bulls for two years now and like the system.

Ideally, I would like to include grass in the bull diet and kill them at 18 months, however, I will miss out on

the bonus if I opt for this system.

Adviser's comment:

We must play to our strengths and one of those strengths is growing cheap grass. The Angus animal is suited to a grass based steer finishing system.

In many cases, the under 16-month bull will be economically favourable with a continental animal with high feed efficiency and capable of achieving a 360kg+ carcass at 16 months.



Adam Woods

Donie Ahern Co Limerick

I have recently sent five cows, six young bulls and nine young heifers to the factory. The cows averaged 300kg carcass weight and the bulls averaged 408kg carcass weight, with a high proportion grading U= and U-. The heifers averaged 308kg carcass weight and also graded well. I plan to have another 90 cattle finished in the next few months, between cows, bulls and heifers.

I have my bulls on a finishing diet of 12kg of a high energy ration, along with 7kg of water, 0.5kg of straw and 8kg of silage. I feel that adding water to the ration helps increase the feed intake levels.

The heifers and cull cows are on 8kg of ration, 12kg of silage, 0.5kg of straw and 4kg of water. The silage being fed to these cattle is baled silage of 76 DMD and 56% dry matter.

Most of my weanlings and dry cows are still grazing. I have the late autumn/winter 2012 weanlings

on 4kg of meal at grass and I also give them access to hay. The strongest of these animals will be slaughtered by the end of March 2014.

I have had a great backend on the grazing front, with 88% of my ground closed so far. I plan to let cows clean out the remaining paddocks until the first week of December and will house my weanlings by the end of this week.

I took some faecal samples from cattle and they tested positive for liver fluke, so I dosed them this week. I will sample again in about three weeks time to see if they are clear of fluke eggs.

Overall, I am very pleased with how my farm performed this year, despite the difficult start. I have really harnessed the grass growing ability of my farm and plan to build on this further next year.

I am hoping that it will lead to an improvement in my profit monitor results for 2013.

