

# BETTERfarm Beef Programme

BUSINESS, ENVIRONMENT, TECHNOLOGY through TRAINING EXTENSION RESEARCH

## What is the cost of producing 1kg of beef?



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A profit monitor should be part and parcel of every livestock farm in the country. Every farmer should know what it costs to produce 1kg of liveweight,

or 1kg of carcass, on their farms. In suckler production, profit is based on the number of calves produced every 12 months and the amount of weight gain that can be achieved from grass.

Producing a calf every 12 months is not the same as producing a calf every year.

In a 12-month production system, a cow is calving every 365 days. A cow can calve every year, but she may well be slipping back a month in calving date year on year.

Batch calving, or compact calving, will quickly identify

these animals for culling. Weight gain is the other part of production that influences the animal's sale value.

Suckler farmers are paid on weight, yet many producers do not weigh cattle to monitor performance or determine if an animal is too light for sale to cover costs.

Waiting until sale day to find out how much an animal actually weighs is not a sustainable model for suckler production.

Likewise, at a cost of 20c/kg to 40c/kg of liveweight gain from grass, every farm-

er should know how much weight was produced from grazing.

The profit monitor will provide the costs of production and the level of output (weight produced per ha of land) for the farm.

Although they are presented on a per-hectare basis, there is enough information provided to calculate the cost of keeping a cow on the farm.

Once the production costs are known, producers can quickly work out how much they need to sell cattle for to

cover these costs before adding on any profit margin.

If a farm with high variable and fixed costs needs calves to average €1,000 in the store/weanling ring at the mart, there is little prospect of making a profit if a calf weighs on average 350kg.

The farms participating in the BETTER Farm programme complete a profit monitor annually and weigh cattle regularly throughout the year.

This information is then used to make sure they are following the right system

of production. For instance, on a farm with high levels of variable and fixed costs, there is no point in producing weanlings, as the herd will struggle to produce sufficient weight gain each year.

Instead, these animals will be better off sold at an older age with increased weight gain.

The profit monitor is only useful if the information is used as a catalyst for change inside the farm gate. It will only make a farm profitable if the farmer actually uses the information.

## ON THE GROUND

Gross margin per hectare fell to €570 on BETTER Farms in 2013 due to a rise in variable costs

The year 2013 will go down as one of the most memorable and eventful in Irish agriculture. Weather, fodder and market prices were the main points of conversation on farms and around the marts. While beef prices hit record highs in June, many farmers never had the opportunity to capitalise on this, having already slaughtered their cattle or offloaded them early due to fodder and cashflow issues.

### Profit monitor

The participating farmers in the BETTER Farm programme have all completed their profit monitors for 2013. There was concern among many of the farmers that purchasing additional forage and using increased levels of concentrates in 2013 will have had a negative impact on farm profitability.

For some, this has proved to be the case. But in general, farms that have expanded gradually and invested in soil fertility and reseeded have not taken any form of a downturn on their gross margins.

Cattle performance suffered on some of the farms early in the year, or late in season, due to drought.

This has also impacted on profit as sale weights were down, reducing both output per hectare and animal value.

On Thursday last, the farmers met to discuss the results and how the factors mentioned have had an adverse impact on gross margin per hectare (GM/ha). In 2013, the average GM/ha across the 34 farms totalled €570, compared with €669 in 2012.

The baseline year for the farms was 2011, with a GM/ha of €549/ha as seen in Figure 1. The GM/ha from phase one have also been included for comparison.

Higher variable costs were also a leading factor, with increased fertilizer costs, re-seeding costs and increased concentrate costs. Much of the increase in concentrates came early in the year when prices exceeded €300/tonne, compared with autumn 2013 when prices ranged from €230/tonne to €270/tonne.

### Gross margin

The farms have been set a target GM/ha of €1,000. For some of the farms, this is an achievable target, but for other farms working in more challenging environments the GM/ha is less likely to be

### KEY POINTS

- ➔ GM/ha in 2013 was €570, down from €669/ha in 2012.
- ➔ Bull beef systems had the highest GM/ha, with suckler to weanling systems having the lowest GM/ha.
- ➔ Average farm size in 2013 was 52.5ha, stocked at 2.09LU/ha.
- ➔ Gross output increased to €1,548, although output per hectare reduced by 26kg/ha to 656kg liveweight/ha.
- ➔ Variable costs averaged €978/ha in 2013 from €818/ha in 2012.

realised. However, the true success of the programme is to leave these farms in a stronger, more sustainable position moving into the new era of CAP payments.

Gross margin is calculated from herd output minus the variable costs of grassland production, contractor fees, concentrates and veterinary expenses. It is used as the comparative financial baseline for a number of reasons, such as:

- ➔ Gross margin is based on output minus variable costs



GM/ha averaged €570/ha in 2013. The farms finishing bulls had a higher GM/ha than steer finishers and weanlings producers in 2013.

which are common to all farms. For instance, fertilizer prices do not vary greatly across the country for specific products.

Gross margin on a per-hectare basis allows for comparison between systems to determine the most profitable one for the land type. Land is the biggest resource on any farm and its potential must be maximised.

All farms can be compared at a gross margin level, regardless of their production system, eg suckler to weanling, suckler to store or suckler to beef.

Fixed costs, such as housing, labour, land rental and machinery running costs, are excluded as these differ greatly from farm to farm.

### Gross margin trends

Figure 2 outlines the range in GM/ha across the 34 farms. GM ranged from the lowest at €132/ha to the highest at

€1,234/ha. As stocking rates where maintained on the farms, the variation in GM/ha comes down to reduced performance of livestock, generating fewer kilograms of liveweight produced per hectare.

The farms at the higher GM/ha level were mainly located in the south of the country and producing bulls for slaughter. In contrast, at the lower end of the GM/ha range, the farms were generally located in the northwest region of the country and producing weanlings from spring-calving herds.

The graph shows a worrying trend related to the current market situation. Producing 17-month to 18-month bulls was the most sustainable of all production systems on the BETTER Farms in terms of GM/ha.

But with processors actively discouraging bulls being finished over 16 months, it

brings into serious question how viable bull beef production will be in future.

In comparison, the farms that are finishing steers efficiently, and in line with the QPS spec, had GM/ha ranging from €720/ha to €875/ha. The top three GM/ha for 17-month to 18-month bull systems averaged €1,095, whereas the top three GM/ha on steer beef systems averaged €802/ha, a drop of 27% in gross margin. This comes in the face of higher prices for steers and an increase in QA premium in 2013.

Increased carcass weight from the bull systems was a leading factor in generating higher output and, consequently, higher GM/ha.

### Farm output

Output is generated from farm sales (including cull animals) and the value of stock at the start and end of the year. Stock inven-



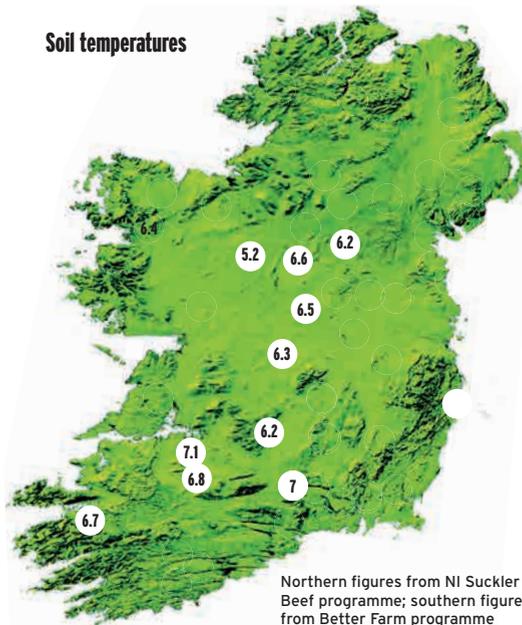
WEEK IN REVIEW

- Weather has settled this week, but on most farms ground conditions remain unsuitable for spreading fertilizer, either as slurry or bagged nitrogen.
- Housing space is coming under pressure with more calving and the lack of opportunity to get cows or light yearling cattle out to grass.
- Calving pens and calf creeps are being cleaned and bedded regularly to reduce the risk of disease exposure in young calves.
- Soil samples have now been taken on all farms.

Finishing cattle within 60 to 70 days before slaughter, should be eating a high-energy, low protein ration so that they are correctly covered. Protein levels should be restricted to between 12% and 13% and energy levels should be at a minimum UFVO.95. You will have to ask the merchant for this value.



Soil temperatures



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

FARMER FOCUS

Thomas Murphy Co Laois

Calving started during the first week of February and to date I have 18 cows calved out of 60, with one set of twins. Thankfully, we've had no major issues with the calves. However, we will be running a bit tighter on space next week.

Last year, I converted an old slatted shed into a calving shed and added an extra eight calving pens to my original four. I must say this works very well. I like to keep the cow and calf together in their own pen for four to five days, to help them bond, before moving them to a communal pen.

I have good grass covers and I hope to walk the paddocks this week and calculate my average farm cover. If the weather and ground conditions improve, I would like to turn some of my earlier calved cows and calves out to my most sheltered paddocks to help free up space. There are



also good grass covers on the silage ground which I hope to graze with my yearling cattle. The ewes were housed and sheared during Christmas.

We were happy with their scanning results (1.78 lambs/ewe) and they are due to start lambing in mid-March. I weighed my 2013 spring weanlings in early January, to monitor their weight gains during the winter. The steers are gaining 1.03kg/day since birth and the heifers are growing at 0.83kg/day since birth.

We dosed the weanlings with a wormer/lice and mange pour-on in early February, as they were dosed about three weeks before housing in the winter.

I killed five heifers and two steers last week. They were 23 and 24 months of age and graded three Us and four Rs. It is allowed.

I also sold my 2012 autumn-born cattle and I was very happy with their weights and respective prices. Slurry tanks are filling rapidly and I need better weather to start spreading and relieve storage.

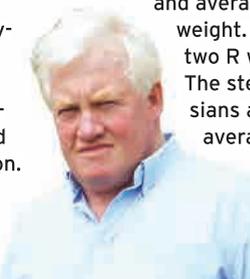
Trevor Minion Co Wicklow

Calving is going well on the farm. We have 15 cows calved from 31, since 27 January, and will have more calved by the weekend. So far, we have a higher proportion of heifer calves than bulls. Considering the delayed spring last year, my calving period is still compact.

Luckily, we have not encountered any major difficulties and only had to assist two maiden heifers, but it was more precautionary than anything else. Cows are now being fed better quality bale silage, whereas previously lower quality silage was fed.

As a result of the changeover, coupled with the wet weather, the cows are harder to bed as I am using more straw than earlier in the winter.

We have 21 dairy-bred calves on the farm with the last six arriving on Saturday and destined for steer production. Nine of the older calves (born October 2013) are weaned and



ready to go to grass whenever the weather allows.

I walked the farm and measured the grass heights on each individual paddock on 4 February, to calculate my farm cover. I have approximately 720kg DM/ha (6cm) across the farm, with a range from 1,150kg DM/ha to 275kg DM/ha, or approximately 9cm to 5cm. Farm cover at closing time (4 December) measured 636kg DM/ha.

Once the weather and ground conditions improve, I will be able to start turning out stock according to my spring rotation planner. My weanlings are doing well and are due to be weighed soon so I can assess how they performed during the store period indoors.

I killed five cull cows and five of my most forward suckler beef heifers, alongside four of my dairy-bred beef steers. The heifers killed out well and averaged 350kg carcass weight. Three graded U and two R with fat scores 4=. The steers were three Friesians and one Angus and averaged 404kg carcass weight. I hope to kill another 12 steers this week.



phase two of the programme in 2011.

While output has increased, sales are down slightly on 2012 levels as a direct result of reduced live-weight. In 2013, cattle sales averaged €1,767, down from €1,841 the previous year.

Variable costs

Total variable costs in 2013 averaged €978/ha, compared with €813/ha in 2012. Purchased feed totalled €372/ha, an increase of €52/ha on 2012 levels. Feed costs have increased substantially since 2011 as a direct result of the wet year in 2012 and fodder shortage in 2013.

As shown in Figure 4, there was remarkably little change in the feeds cost per hectare from 2008 to 2011, but higher prices and volumes used in 2012 can be clearly seen. Fertilizer use increased from €165/ha in 2012 to €244/ha in 2013. Soil fertility is a major issue on farms and in 2012 there was a lack of opportunity to increase fertilizer use, or to change to using compounds, as the wet year prevented fertilizer spreading.

In 2013, higher fertilizer prices and the use of compound fertilizer have increased the cost on farms, as shown in Figure 5. However, with higher yields of grass from compound fertilizer, the additional expense can be justified with replenished winter fodder stocks and grass yields on grazing land approaching 10t/acre of dry matter.

tory changes accounts for increasing stocking rates and mortality. The average farm size in 2013 was 52.5ha, compared with 52.6ha in 2012 and 53.8ha in 2011.

Since 2011, stocking rate increased from 1.84LU/ha to 2.09LU/ha. In terms of live-weight produced per hectare, there was slightly less weight produced compared with 2012. In 2013, the average live-weight produced was 656kg/ha, compared with 682kg the previous year. Gross output has continued to increase throughout phase one and two of the programme, as outlined in Figure 3. Gradually increasing the stocking rate and being able to maintain additional cattle means there is more animals for sale annually.

It can also influence the herd inventory at the end of the year. Gross output has increased by 27% since the 2011 baseline figures for

Figure 1. Average GM/ha for the years 2011-2013



Figure 2. GM/ha range

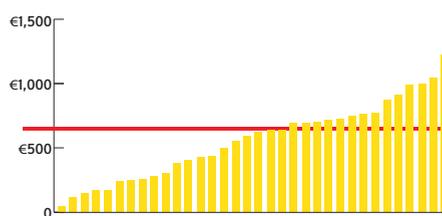


Figure 3. Average gross output/ha

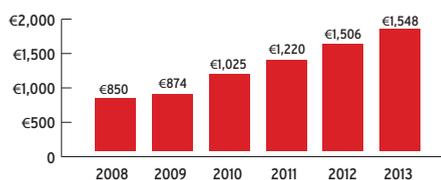


Figure 4. Average feed cost/ha

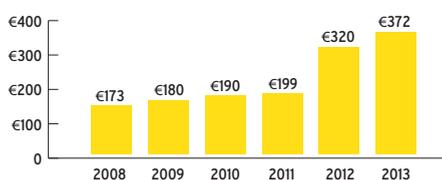


Figure 5. Fertilizer costs



Next week

The in-depth results based on geographical spread and the suckler system.