

Grass key to success

Despite a difficult season grass remains central to farmer Joe Farrell's success

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Joe Farrell is one of 10 farmers who participated in phase one of the Teagasc Green Acres Calf to Beef Programme. He worked closely with programme advisor Gordon Peppard and local Teagasc advisor, Christy Watson. The project showed that, with technical efficiency, it is possible to attain a net margin per hectare (excluding premia) of more than €500 per hectare €200/acre on beef farms.

"The farm was traditionally split equally between the tillage and the calf to beef enterprises," says Joe, but with the poor prices for grain over the last few years we reduced the tillage area and increased cattle numbers."

Before joining the Teagasc Green Acres Calf to Beef Programme, Joe was purchasing 75 Angus/Hereford heifer and 15 Friesian bull calves from dairy herds in March/April. The 15 Friesians were slaughtered in June of the following year at 16 months of

Table 1: Example costings for dividing 14ac paddock into subdivisions

Paddock costings	
Item	Cost
Wire	€35
Handles/insulators	€30
Stakes	€125
Pigtails	€60
Water troughs and piping	€310
Total cost	€560
Cost/acre	€40

age and the heifers at 22 to 24 months from December to March.

"We bought in calves at two to three weeks of age," says Joe. "Following a rearing phase for the first 10 weeks, they went to grass for their first grazing season receiving 1kg of concentrate. They were generally housed in mid to late November and fed silage and concentrates."

The Friesian bulls were built up to ad-lib feeding and slaughtered out of the shed in June. Following a second year at grass, the heifers were housed full time on straw and built up to 5kg of concentrates for finishing.

Heifers were slaughtered from December to March out of the shed as they became fit.

Increasing output

"The plan over the course of the Teagasc Green Acres programme was to increase output on the farm and sell more kilos of beef per hectare by utilising more grass," says Joe. "In order to do this, I decided to make a

few adjustments to how we do things. We put a grassland plan in place so we could make better use of grazed grass. This involved introducing a paddock system, grass measuring, maintaining soil fertility levels, getting cattle out earlier and also introducing a reseeding programme."

The numbers of calves reared on the farm has increased to 140 over the last three years and an additional 30 to 40 weanlings are also bought in, in the autumn. Due to the high cost of the Angus heifer calf and the lighter carcass at slaughter, Joe has decided to buy in more Friesian bull calves, which will be castrated and slaughtered as steers at 24 months, out of the shed.

"This allows me to reduce the cost of purchasing calves while also having a heavier carcass to sell," says Joe. "I buy calves as early as possible in February/March so that a strong calf will go to grass in the first season. This allows more of the heifers to be slaughtered off grass before the

second winter. So I need less housing. "With the extra calves to be reared, we needed a comprehensive animal health plan and we worked with our local vet, focusing on a good vaccination programme, to curtail disease."

Grass is key

When Joe first heard about the programme, he saw it as an opportunity to improve the financial return on his farm, "I knew I could get more from grass. The biggest change since joining the programme is that I have been growing and using more grass on my farm (production is obviously down this year but it would be much worse with our old system). I went from 10 paddocks to 32 grazing divisions and effectively doubled my stocking numbers.

"Some fields still have room for improvement in terms of soil fertility and I'm working on these. I walk my paddocks and complete a grass cover on Saturday or Sunday evening. Some weeks I'd prefer to watch a match

on television, but most of the time once I'm out I enjoy the walk. It only takes about an hour and I know I am walking the farm for myself and the benefits it delivers to me."

When I met Joe in mid-July at the height of the drought, I asked him how he is set for the winter. He has ensiled some winter wheat as whole crop, so he now has half of his feed requirements for the winter.

"The disadvantage of ensiling the winter wheat is that I don't have income coming from the wheat and I will have less straw. However, I will put in leafy turnip which will save on feed and straw. I hope to graze this in January. I will have cattle hardy enough to be grazing grass on Valentine's Day, all going well," says Joe.

"I will also look at ad-lib finishing of the steers as this will save me 4t of silage/head. At least with half of my winter fodder in place, I will have options this winter."

I also asked Joe whether he will consider reducing stocking rate consider-

ing the difficult weather conditions of this past year. "I am not looking at reducing stocking rates as I know I need the output to drive profit on my farm," says Joe. "My system will still be based around growing and utilising grass. I will of course have to adapt and change to ensure I have enough fodder.

"I have flexibility with my winter wheat as I can ensile or sell in a good year. I grew maize before but found I was missing grass at the shoulders of the year. I think we can learn from this year and build silage reserves in good years.

"Simple things like having one inch piping to troughs would help get enough water to troughs in a drought. I find that big troughs do not work for small calves.

"I enjoy rearing cattle and seeing them thrive. I get a real sense of achievement if I can get cattle finished a month earlier."

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Karen Dukelow with Pdraig and Joe Farrell.

Figure 1
Location of Teagasc Green Acres programme farms



Original 10 paddocks and current 32 grazing divisions.

Financial performance

During the course of the programme Joe increased his gross margin from €500/ha to €1,600/ha.

The average gross margin of the 10 participants improved from €500/ha to €1,100/ha.

Gordon Peppard summarises the 10 key steps to making this improvement:

1 Have a plan: when you buy your calves, you need to have a plan as to when these animals are going to be slaughtered. If not, you will fall between two stools, with implications for housing facilities, slurry storage, not enough silage, mixed age groups creating issues for dosing, etc.

Talk to your processor, know their requirements and ensure that all your animals meet these market specifications for assurance payments, etc, and attain numbers that you can supply at different times of the year to command the best price possible.

2 Producing high beef output: simply put, this is the number of kilos of beef produced per hectare. It results from a combination of a high stocking rate and excellent performance by each animal.

As a target, 1,250kg/ha should be produced. This can be achieved from a stocking rate of two and a half livestock units per hectare and a performance of 500kg per livestock unit.

Decide on a production system and stocking rate to suit your land type and housing facilities. In calf-to-beef systems, these targets are very achievable and even higher levels can be reached.

3 Careful calf selection: source a good-quality calf. Buying an earlier born calf (before 17 March) will help to increase output as these calves are generally from the cows with better fertility and performance. Also, these calves will be weaned and at grass for longer in the calf pen.

4 Excellent calf rearing: feeding high levels of milk replacer, up to 750g per day, increases growth rates to weaning. Ensure good hygiene at feeding and in the calf pen. Consistency is key in relation to feeding the calf. Feed at the same time, rate and temperature each day to avoid stressing the young animal.

5 Appropriate calf-rearing facilities: provide calves with a clean, warm, dry, well ventilated bed. Have a one-in-20 slope on the calf bed to remove seepage to an outside tank.

Use plenty of straw (see article on alternatives) to ensure that the calf is kept warm at all times. Pens should provide 2.2m² (24ft²) per calf. Ensure that there is no draught at calf level.

There should be an outlet (5-6m² per 100 calves) which needs to be covered to prevent rain entering and wetting the calf bed. The inlet should be two-way to deliver good ventilation which will remove bugs, respiration, moisture, smells and reduce the risk of disease.

6 Animal health plan: creating a health plan in conjunction with your vet is essential. With calves coming from multiple sources, a vaccination programme is critical.

Slurry should be targeted at low levels.

The top performers vaccinate for pneumonia and IBR, using the marker Live intranasally for IBR. Booster pneumonia and IBR are then given at the correct stages throughout the lifetime of the animal.

A strategic dosing regime needs to be implemented throughout the grazing season and during housing.

7 Correct soil fertility: to grow the large quantities of high-quality grass soil needed fertility must be at its optimum. If necessary, correct the lime status of the soil to index 3.

Slurry and farmyard manure should be spread together, thereby increasing the nutrient value of the soil.

“ Weigh animals regularly to ensure that performance is not compromised at any stage from purchase to slaughter

8 Grassland management: maximising weight gain from grass is essential. A paddock system, with regular grazing, will increase your supply of quality leafy grass. The goal is to have at least 240 days' grazing. To achieve this target, animals need to be out early in the spring. This requires excellent management in the autumn, with paddocks closed up early to ensure a supply of grass in the spring.

Good management of the grazing programme in the spring to ensure you set the farm up for maximum productivity over the summer is critical to success.

9 Produce high-quality silage: in a calf-to-beef system all animals are priority. Therefore, producing high-quality silage to help all animals meet the target average daily gain of 0.6kg+ over the winter is critical.

All silage produced should be greater than 70% DMD to help reduce the level of concentrates required to meet daily gains. The difference per head between a 62% and 72% DMD silage for 100 weanlings over a 140-day winter can be €70, a total of €7,000.

10 Weigh cattle regularly: to ensure that performance is not compromised at any

stage from purchase to slaughter it is essential that animals are weighed periodically throughout the year. Animals must be weighed at turn out, mid-season and at housing.

Weight loss should be detected and remedial action taken. Weighing animals together, thereby increasing the accuracy of the target weights are fed.



You should decide on a production system and stocking rate to suit your land type and housing facilities