

The Price of Pride

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Introduction

Profitability is the difference between receipts and costs. Cost of production is total cost divided by kg beef produced. Simple! Unfortunately the economics of beef production are seldom simple. There are fixed or overhead costs and variable costs to consider. What should or should not be included? Some include “imputed” land value and a value for own labour. Buildings and machinery are not purchased on a regular basis so depreciation must be calculated. Should an “opportunity cost” for my resources be included? Should capital appreciation of land value be included? Then nature can deal a blow with drought, snowstorms, rain, disease so that output may never be the same two years in a row. Economic decisions by investors thousands of miles away can affect costs of inputs. All of these factors conspire to make the profitability of beef production a difficult figure to arrive at. It is possible however to very easily arrive at “proxies for profit” such as the following:

- “I have the biggest and best cows”
- “I sold the most expensive calf in the sale”
- “I had more E grades than anyone in the county”
- “I had the heaviest carcasses in the abattoir”

These statements have little to do with profitability but are often calculators of pride – but they do look good!

Big cows?

Surely bigger cows mean bigger calves and bigger carcasses and more abattoir receipts and higher cull value and more profit??

Efficiency

What is a big cow? For some, big cows start at 650kg while others are not thinking big until 900kg. At CAFRE hill farm a three breed rotation has been in place for a number of years with base Limousin cows being crossed with Shorthorn. Progeny of these are crossed with Aberdeen Angus. This was a recipe for a “medium” sized cow. However, when cows were weighed at

weaning in autumn 2009, average cow weight (excluding 2 year old first calving heifers) was 670kg. Excluding three year old second calvers increases average weight to 680kg! Typically a weighbridge makes cows 100kg heavier than a “guess” and round bales usually 100kg lighter. CAFRE has a target of each cow producing 50% of her weight in weaned calf at 200 days. This year the value including 2 year old heifers was 40% so there is room for improvement. It is interesting to note that the 5 heaviest cows averaged 793kg and their calves averaged 253kg at 200 days of age (32% of their weight) while the 5 lightest cows (excluding 2 year old heifers) weighed 560kg and their calves averaged 257kg (46% of their weight)! Big cows clearly do not have bigger calves!!

Maintenance requirement

Each 100kg increase in cow liveweight requires an additional 0.5t of grass silage for a typical winter. During the grazing season, 100 cows weighing 700kg will have the same grass dry matter requirement as 113 cows weighing 600kg.

Market requirements

At time of writing market specification generally require a carcass of 260 – 420 kg with premiums available for 280-380kg carcasses. Cow size becomes important when their progeny cannot be finished within these ranges. There is significant scope to moderate cow size and still reach market specification.

Big cows means more inputs, not necessarily more output and can more than eat all their extra cull value during their lifetime – but they sure look good!

“I sold the most expensive calf in the market”

It is tempting and easy to focus on the top price attained and assume profitability. Calves that survive to sale generate revenue and pride but the calves that die or are never born due to poor fertility receive little attention and eat into the bottom line. Reducing the calving season from 150 days to 70 days increases average weaning weight by 40kg! One profitability study in Nebraska, USA concluded that it took the profit from two cows that calved early in the calving season to cover the loss generated by a cow calving later in the season.

Calculating returns from calf sales from CAFRE Hill farm is shown in the first column of Table 1 and the effects of poor fertility at a high and low calf price are shown in columns 2 and 3.

Table 1: Calculating calf sales in the CAFRE Spring calving herd of 100 cows and the effects of poor fertility at a high and low calf price.

Parameter	CAFRE Hill Farm	Poor fertility, poor market price	Poor fertility, exceptional price
% cows that conceive	94	90 cows	90
% of those calving that wean a living calf	98	90 cows	90
Weaning age (days)	200	170 days (60 day longer bulling period)	170 days (60 day longer bulling period)
Growth rate (kg/d)	1.1	1.0	1.0
Sale price (£/kg)	1.6	1.5	1.8
Total sales/100 cows (£)	39,059	26,123	31,347

The first two rows combine to produce a weaning rate of 92% at CAFRE Hill Farm and 81% in poor fertility herds. The common myth that all cows have a calf every year has been dealt with in previous articles.

It should be noted that a cow that calves consistently early in the calving period for a lifetime of 8 years will produce the equivalent of 2 ADDITIONAL calves in her lifetime compared with one that starts calving later and continues to calve later.

“E” grades

To obtain an E grading carcass extreme muscling is required on both the sire and dam side. Conformation tends to be adversely correlated with milk production, calving ease (and hence fertility) and calf “liveability.” Without careful sire selection for birth weight, gestation length, calving ease and milk each E grade represents sleepless nights, caesareans, labour and frustration. Although some current grading schemes reward E grades to some extent, these unseen costs can quickly eliminate any bonus, for example, if conformation comes at the expense of fertility. A carcass sold for £1000 every 450 days is equivalent to one sold for £811 every 365 days.

Unfortunately poor fertility is not highly visual and can even be ignored by the herd manager while a high price for a calf or an E grade is seen by many people and sure looks good.

I had the heaviest carcasses in the abattoir.

Heavy carcasses can be produced in a number of ways.

1. As a result of “standard” management practice with genetically superior cattle which had high growth rates and feed efficiency
2. They were poorly managed for 30 months and gradually reached an acceptable level of finish by growing very slowly and eventually producing a heavy carcass.

Some farmers are under the illusion that heavy carcasses increase beef output. While this is true under scenario 1 above, it is not true under scenario 2. By growing an animal more slowly than is required, less animals can be finished on the farm. So individual carcass weights are up but total farm output is down.

In addition, taking an animal slowly to a given weight in 30 months rather than 24 requires an additional 6 months of maintenance. Maintenance costs, especially in a housed situation, can be over £1/day for feed alone. It is this higher maintenance requirement, plus the increasing fatness of the carcass that leads to a much greater cost of putting on a kg gain at heavy carcass

weights. It is much more efficient and costs considerably less to put on weight at a lighter weight.

Heavy carcass weights may be a sign of genetically superior animals but more often a sign of lower farm output, poorer efficiency, poor management – but they sure look good.

Key lessons

- **Calculating profit can be difficult but is well worth the effort.**
- **Proxies for profit that look good may be poor indicators of profit.**
- **The currency of pride is attractive to human nature but doesn't pay bills!**