

## Bulls versus Steers

Bulls grow faster and more efficiently than steers, but the meat from older bulls can suffer quality problems. However our studies show that if slaughtered at 12 to 14 months of age the eating quality of Yearling Bulls compares well with steers. The economics of bull finishing make good sense because they grow faster and are more feed efficient than steers.

### Lifetime Performance Comparison

Compared to typical steers, Yearling Bulls reach the same slaughter weight 10 months earlier utilising around 2 tonnes less feed, dry matter (DM), over the animals lifetime. Bulls are likely to require more straights/concentrate; however their extra efficiency and lower fixed costs (due to the shorter production cycle) more than offset this extra cost. Overall there is a massive positive impact on margin, as shown below.

### Yearling Bulls vs. Steers

	Yearling Bull	Steers
Live weight @ slaughter (kg)	636	630
Daily LWG (kg/d)	1.50	0.84
Feed DM consumed	1890	4230
Cold Carcass Wt (CCW)	350 kg	340 kg
Age - months	13	23
Age -days	395	699
KO %	55%	54%
Feed cost	£312	£423
Other Var. cost	£79	£140
Fixed cost	£70	£334
Total costs	£461	£858
<b>Net Margin Increase</b>	<b>£397</b>	

Source: SRUC

Overall effect: 30% more income per acre

Yearling Bulls are finished 10 months earlier than steers, meaning that in a breeder/ finisher system, grazing land that would otherwise be allocated to young steers can be stocked with extra breeding cows.

STEER SYSTEM	YEARLING BULL SYSTEM
100 cows	130 cows
47 steers	61 bulls
17 replacement heifers	22 replacements heifers
30 finished heifers	39 finished heifers
180 grazing livestock units	193 grazing livestock units
300 tonnes conserved forage (DM)	284 tonnes conserved forage (DM)

With a Yearling Bull system, cow numbers can be increased by 30% and 5% less conserved forage (DM) is required because, unlike steers, Yearling Bulls do not require feeding for a second winter.

Yearling Bulls need to be finished quickly once weaned. This will increase purchased feed costs as more straights/concentrate are required. However with higher output of the herd and better growth and carcass yield performance, 30% more carcass weight is available for sale, with an increased total margin in excess of £8,000.

Concentrate Input (£197/t DM) & Cost

<b>Steer System</b>	<b>Yearling Bull System</b>
55t concentrate DM	170t concentrate DM
£10,835	£33,490

Carcass Output & Sale Value			
CCW (tonnes)	31.06	CCW (tonnes)	40.52
Steers 47 x £1312 =	61,664	Bulls 61 x £1295 =	78,995
Heifers 30 x £1168 =	30,040	Heifers 39 x £1168 =	45,552
Cull cows 15 x £700 =	10,500	Cull cows 20 x £700 =	14,000
<b>Sale output</b>	<b>£107,204</b>	<b>Sale Output</b>	<b>£138,547</b>

**30% more carcass weight sold for extra £31,343**  
**Extra concentrate cost of £22,655**  
**EXTRA PROFIT - £8,688**

Source: SRUC

Stabiliser Finishing Performance

Yearling Bulls vs. 18 month old Steers in the NFE unit

BIG trials in the NFE unit have shown that bulls cost 20% less to feed than similar sized steers

Results from the NFE unit same 50:50 forage/concentrate diet fed at the same time

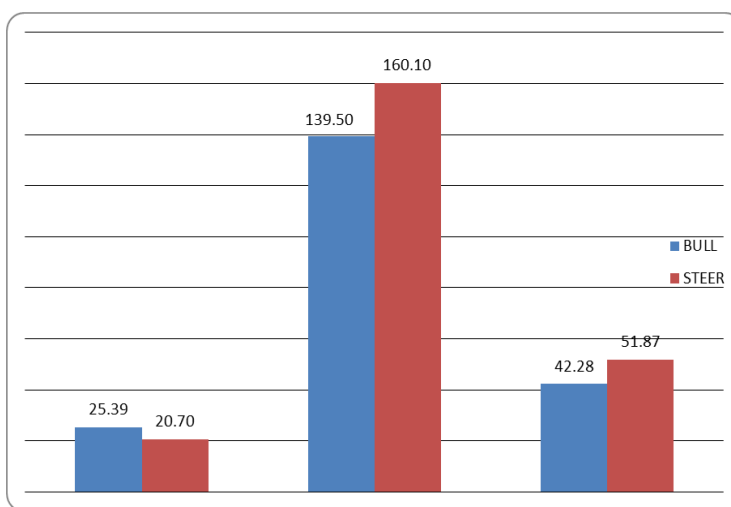
	<b>STEERS</b>	<b>BULLS</b>
Mean LW (kg)	578	591
DLWG (kg/d)	1.47	1.84
Fat depth	7.4	5.2
DMI (kg/d)	12.81	12.80
FCR (DMI:LWG)	8.8	7.1
<b>Cost difference p/kg LWG</b>	<b>135</b>	<b>108(20% less)</b>

Source: BIG Net Feed Efficiency Unit

What about consumer requirements?

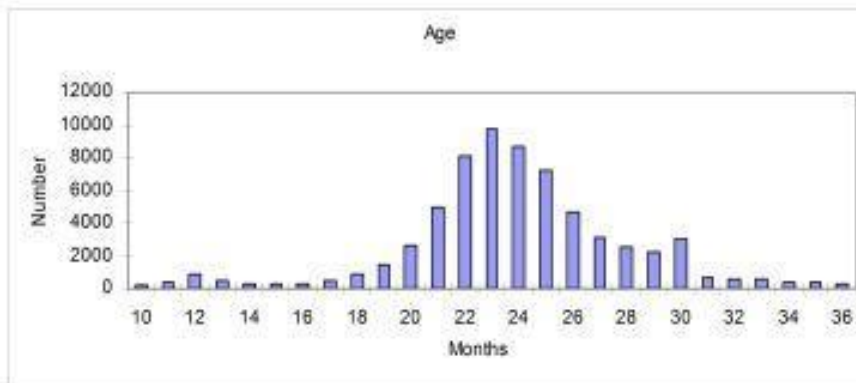
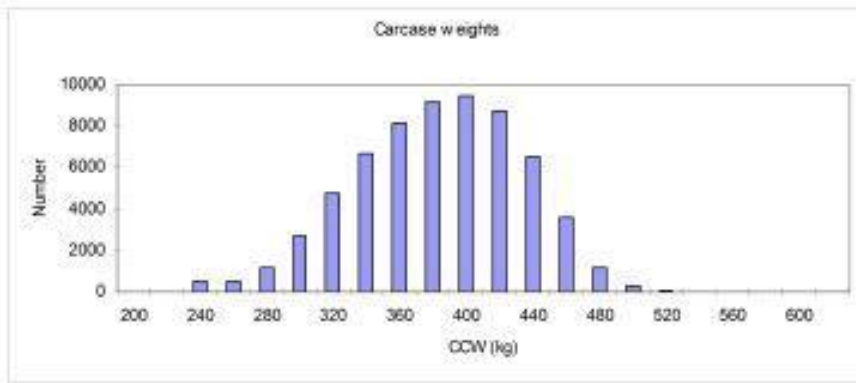
Yearling Beef goes a long way to delivering the quality and consistency that the modern consumer is seeking.

Tenderness is the number 1 eating quality attribute that consumers want from their beef purchase. Yearling Beef has been extensively tested using Tenderscot measurements and trained taste panels to demonstrate that there is an improved tenderness score over standard steers. The reason for this is that at a young age of slaughter, tenderness is better than that of older cattle. Steers processed at this age would also show improved tenderness, however yearling bulls allow us to achieve tenderness and higher carcass weights.

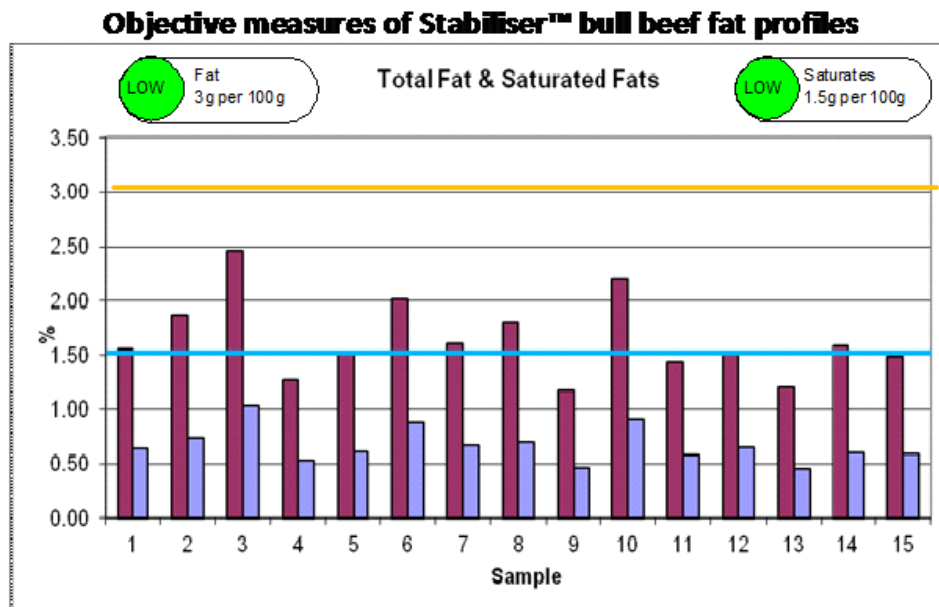


**Source: JSR Food Quality Centre**

Product consistency is major a challenge to the industry. With standard slaughter carcass weights ranging from 260 -450kg and cattle ages ranging from 13 months to 36 months, it is very difficult to achieve consistent products at consistent retail prices. For example two sirloin steaks of the same thickness can differ in price by over 70%! The nature of the Yearling Bull system means that carcass weight and cattle age is brought within target limits, ensuring retail products are much more like peas in a pod



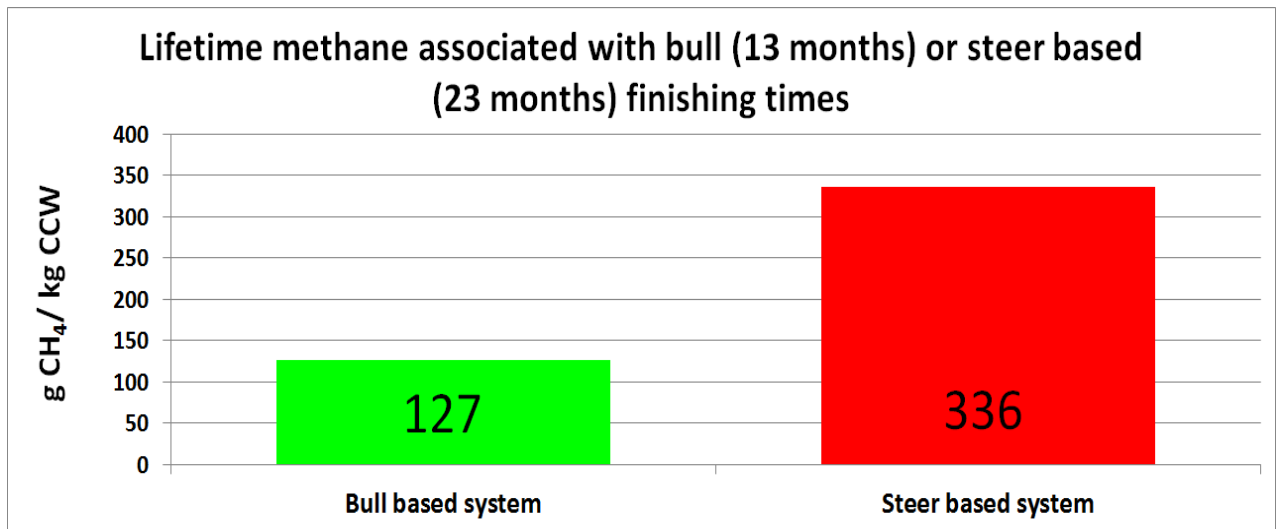
Another useful attribute of Yearling Bull beef is the very low total fat and saturated fat level. The beef industry has come under many challenges from dieticians on the levels of saturated fats. Yearling Bull beef has the potential to be lower in fat than any other major animal protein, including chicken and pork.



Source: Bristol University

Better for the Environment

## Bull Beef Production Reduces Greenhouse Gas Emissions



Producing a steer carcass (340 kg) at 23 months produces 2.65 times more methane than producing a yearling bull carcass (350 kg) at 13 months of age.

This represents a 60% reduction in total methane production per kg ccw: a significant contribution to efforts to reduce GHG emissions.