

Increasing the profitability of dairy-beef systems using the Commercial Beef Value (CBV)

In recent years, there has been a notable increase in dairy-beef cattle in Ireland. Historically, beef farmers lacked important information regarding the ‘beef genetic quality’ of dairy-bred cattle. However, the introduction of the Commercial Beef Value (CBV) has addressed this gap. Dairy-beef cattle of higher CBV will on average produce heavier carcasses of improved conformation, at younger finishing ages and return higher profit margins for beef farmers.

What is the CBV?

- The CBV, or Commercial Beef Value, is a tool for gauging the quality and anticipated profitability of dairy-beef calves.
- The CBV offers farmers valuable insights into the beef genetic worth of purchased beef calves in terms of carcass weight, conformation, finishing age and feed intake (Figure 1).
- CBV is denoted as a Euro value. A higher euro value signifies superior beef genetic merit across the included traits.

How does it benefit farmers?

- The CBV allows beef farmers to make more informed decisions when purchasing dairy-beef animals, regardless of age.
- Genotyped animals being traded through marts will have their CBV displayed on mart boards. When engaging in farm-to-farm sales, purchasers should request the CBV profile from the seller.
- The beef merit of calves can vary significantly even within the same breed (Table 1).

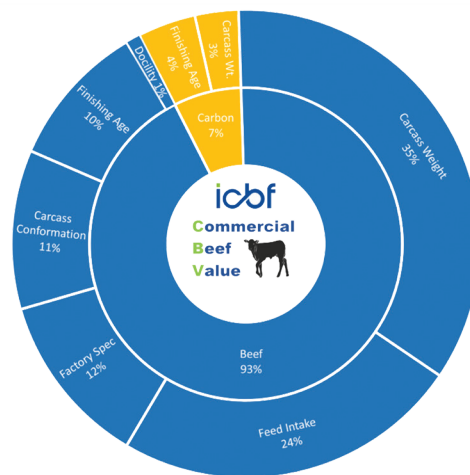


Figure 1. The Commercial Beef Value

Table 1. CBV values by breed for 2023 born dairy-beef calves

2023 Born Beef Calves from the Dairy Herd					
Sire Breed	Btm 10%	Btm 1/3	Average	Top 1/3	Top 10%
Angus	<€43	<€63	€72	>€84	>€116
Aubrac	<€102	<€122	€132	>€145	>€179
Belgian Blue	<€106	<€141	€160	>€174	>€208
Charolais	<€126	<€153	€167	>€184	>€218
Friesian	< -€25	< -€3	€6	>€15	>€36
Hereford	<€29	<€51	€61	>€75	>€107
Limousin	<€125	<€148	€159	>€175	>€209
Simmental	<€59	<€82	€97	>€116	>€150

(source www.icbf.com)

Teagasc Grange research herd performance

Over multiple years at Teagasc Grange, within a pasture-based system, high CBV genetics have consistently been more profitable, due to improved carcass traits at younger finishing ages and from lower concentrate input than low CBV beef x dairy and dairy x dairy steers (Table 2).

Table 2. Performance of 2020 and 2021 born dairy-beef steers of contrasting CBV managed within a pasture-based finishing system.

	High Angus (€95 CBV)	Low Angus (€61 CBV)	Holstein Friesian (–€1 CBV)
Finishing age (Months)	21.1	21.5	23.6
Carcass weight (kg)	314	306	311
Carcass conformation	O= / O+	O=	P+ / O-
Carcass fat	3+ / 4-	3+	3+
Finishing period (days)	51	62	127
Finishing supplement (kg)	248	306	628
Net profit per head (€)	459	382	269
GHG per kg carcass (kg CO ₂ e)	12.8	13.0	15.4

National herd performance

Nationally dairy-beef cattle of higher CBV exhibit superior carcass weight, better conformation, and increased carcass value due to their increased ability to meet overall market specification compared to those of lower CBV (Table 3). Despite large differences in beef production efficiency (carcass value and finishing age), little difference in calf purchase price exists between the bottom and top 10% for dairy (€43) and Angus x dairy (€58) sired steers. The CBV is relevant all through the animal’s life. Therefore, dairy-beef farmers purchasing calves, weanlings or store cattle, can utilise the CBV tool to identify superior beef cattle.

Table 3. Calf price, finishing price and finishing age for A) dairy x dairy steers and B) Angus x dairy steers finished in 2023 by CBV decile.

A: Dairy steers finished in 2023				B: AA X FR steers finished in 2023			
CBV Rank	Calf Price	Finishing Price	Finishing Age	CBV Rank	Calf Price	Finishing Price	Finishing Age
Top 10%	€99	€1,538	817	Top 10%	€249	€1,763	778
2	€85	€1,471	823	2	€235	€1,689	787
3	€79	€1,455	826	3	€230	€1,684	789
4	€79	€1,439	826	4	€231	€1,653	790
5	€78	€1,415	824	5	€229	€1,632	788
6	€71	€1,409	826	6	€223	€1,608	792
7	€72	€1,392	827	7	€218	€1,589	802
8	€67	€1,373	829	8	€211	€1,569	805
9	€65	€1,338	832	9	€208	€1,541	817
Btm 10%	€56	€1,263	833	Btm 10%	€191	€1,490	831
Difference Top & Bottom 10%	€43	€275	-16	Difference Top & Bottom 10%	€58	€273	-53

How to breed calves of high CBV

- The Dairy Beef Index (DBI) is a genetic index used in dairy farming to select bulls that will produce calves suitable for beef production, while also maintaining desirable calving traits in their progeny.
- The index consists of three sub-indices: Calving, Beef and Carbon (Figure 2).
- Dairy farmers should select bulls with high beef sub-index values in the DBI in order to improve calf quality.
- The beef merit traits will be reflected in the CBV of the progeny.

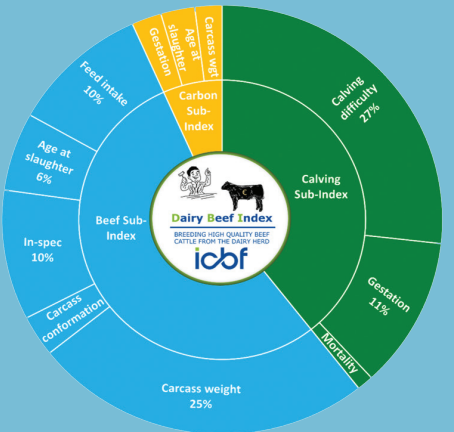


Figure 2. The Dairy Beef Index

More information on the Teagasc DairyBeef 500 Programme can be found at [Teagasc.ie](https://teagasc.ie)

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