

Why the scales are key

Performance varies significantly between suckler cows, but you can't tell by looking at them. Breeding strategies need hard facts to work with

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Liveweight measurements of both the suckler cow and her calf are critically important when assessing the performance of your beef herd. These liveweight records are also key in the formation of the Euro-Star replacement index.

The liveweight of the calf is a good indicator of the milk potential of the cow. It's also used to predict the future carcass performance of the animal. Cow liveweight also helps to estimate maintenance cost, and thereby the feeding costs associated with the cow herself.

Overall milk, cow liveweight, carcass weight and conformation make up a combined 45% of the replacement index (Table 1).

Therefore, it is important to collect as many liveweights as possible on suckler cows and calves, to ensure



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higher reliability of your Euro-Star indexes. Traditionally, however, the number of weight recording in herds has been extremely low. Given the importance of liveweights, the Beef Environmental Efficiency Pilot (BEEP) was launched in 2019 to increase the amount of cow and calf liveweights recorded. The optimum time to weigh a cow and her calf is 150-250 days after calving.

Cow efficiency

As well as assessing liveweight of the cow and calf individually, combining this information can provide a very useful measure on the efficiency of the cow. Measures of cow efficiency can tell us how good a cow is at converting feed into carcass.

Cow efficiency can be assessed as the percentage of the cow's liveweight that she weans, in terms of calf weight adjusted to 200 days. For example, a cow weighing 630kg with a calf weighing 270kg at 200 days will have a cow efficiency of 43%.

This cow efficiency percentage can vary greatly between individual cow-calf pairs (ie 30% to 60%) and is

Table 1: Traits and their emphasis (%) within the Euro-star replacement index

Trait	Trait emphasis	Trait type
Maternal calving difficulty	6%	Cow traits 71%
Age first calving	6%	
Calving interval	9%	
Survival	8%	
Milk	18%	
Cow liveweight	14%	
Cow docility	4%	
Cull cow weight	7%	Calf traits 29%
Calving difficulty	7%	
Gestation	2%	
Mortality	1%	
Docility	1%	
Feed intake	4%	
Carcass weight	10%	
Carcass conformation	3%	
Carcass fat	1%	



a useful tool in identifying both your top-performing and, more importantly, your poorly-performing cows.

Once your cow-calf weights have been taken and entered, a weaning performance report will be available through your ICBF HerdPlus profile, which will give you a full breakdown of your herd's performance. The report allows you to analyse calf and cow performance both at a herd and individual animal level.

Relationship between Euro-star indexes and cow efficiency

To date, over 50,000 liveweight measurements have been recorded on cow-calf pairs as part of BEEP. To assess the usefulness of the replacement index in identifying efficient cows in your herd, the genetic index of individual cows was compared with the liveweights recorded on both the cow and her calf.

Results from the BEEP data showed that cows with high star ratings on the replacement index had superior on-the-ground performance compared with low star-rated cows (Table 2). On average, five-star replacement index cows were 27kg lighter than cows with low indexes. However, five-star replacement index cows on average produced heavier (17kg) calves at 200 days compared with one-star cows.

This resulted in the five-star cows weaning proportionally more of their own body weight (47%) compared with one-star cows (42%). These results indicate that selection of cows for favourable high replacement indexes will result in progress.

This is because lighter cows require less maintenance and heavier calves drive output by producing more liveweight to sell, or by their calves reaching slaughter at a younger age.

Given the increased importance of the environmental impact of the national suckler herd, these results demonstrate that by selecting high replacement index cows, farmers can help identify the most efficient suckler cows.

This will significantly reduce the amount of greenhouse gases (GHG) generated per kg of beef produced in Ireland.



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Case study

Anna Marie Colohan, Crowsnest, Ballinasloe, Co Galway

Sinéad Devaney
Teagasc beef and sheep adviser, Ballinasloe

Anna Marie Colohan is a mother of five, farming full-time at Crowsnest, Laurencetown, just a few miles outside Ballinasloe in Co Galway. She took over the 35ha family farm from her father Jim Colohan in 2002, where she now runs a herd of 31 Simmental suckler cows, together with a 110-ewe flock that lambs mid-season (mid-February).

The farm is stocked at 170kg N/ha. Lime, P and K are being applied where needed, and Anna Marie is aiming to raise grass output and utilisation even further.

Anna Marie farms together with her father Jim, while her husband works off-farm.

"I do have a keen interest in the breeding side," she says. This is reflected in the calving performance and suckler cow genetics of the herd. Anna Marie keeps suckler cows and a five-star replacement suckler bull. A five-star replacement Angus bull runs with the heifers.

"All cows are scanned; those not in-calf are culled," says Anna Marie. "Our calving period is February to April, with 96% of cows calving in six weeks. March is the peak calving month and this works very well as the lambing season is mostly over by the end of February.

"Heifers are calved by two years of age. We rarely have problems at calving and we usually have only one calving difficulty or 'assistance needed' at calving per year."

Anna Marie's herd has a lot of other excellent attributes too. Currently, her cows average €109 on Eurostar (the national top 10% is €105), and the top cow on-farm has a €urovalue of €157. The calving interval is 372 days, while calves/cow/year stood at 1.13 this year.

"We work with a local technician Niall Stoddart who carries out calf weighings for us each year, and then we submit the data recorded to ICBF," says Anna Marie. "By working with Niall we are able to take the subjectivity out of breeding. Margins are too tight to have animals in the herd who are underperforming.

"In 2015 we took part in the Teagasc ICBF cow and calf weighing initiative and this year we participated in the BEEP scheme."

As a member of Herd Plus she consults the ICBF breeding reports to assist her in making breeding decisions, such as purchasing bulls and compacting calving.

Anna Marie has been a member of the Aughrim Kiltormer Beef Discussion Group facilitated by Sinéad Devaney, since 2012.

Table 2
Average performance of cow-calf pairs based on cows differing in star ratings for the replacement index

Replacement index star	No. cow-calf pairs	Avg. rep index	Cow weight (kg)	Calf weight (kg)	Cow efficiency (%)
1	3,482	€27	649	268	42
2	3,998	€58	638	273	43
3	4,562	€76	632	277	45
4	6,248	€93	628	279	45
5	10,364	€129	622	285	47



Sinéad Devaney and Anna Marie Colohan.



As a member of Herd Plus, Anna Marie consults the ICBF breeding reports to assist her in making breeding decisions.



Jim Colohan, Sinéad Devaney, Anna Marie and her son.