

Future is written in the stars

But science, rather than astrology, is driving progress for suckler farmers



In 2008, I realised that I needed to target milk and fertility in my herd and I purchased a five-star bull strong for these traits. Thankfully, everything has worked out well



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John Kelly, together with his wife Mairead and their two daughters Rachel and Avril, farm 90ha in Moydow, Co Longford.

The family runs 100 cows, mostly three-quarter bred Limousin. Calving takes place between July and October and John sells his weanlings from June onwards to the live export market. Ninety per cent of the heifers over the last few years have all been kept on the farm as the plan is to go to 120 cows. Three Limousin stock bulls and an Angus bull for heifers calving down at two years old are used.

John says: "My focus has always been on keeping milk in the herd and making sure that all cows are fertile. As a result, I have been selective in the stock bulls purchased and AI used on the farm."

Since the introduction of the Irish Cattle Breeding Federation (ICBF) Euro-Star ratings, John has used as much of this valuable information along with physical appearance when buying bulls. Initial Euro-Star ratings on his stock bull have proven to be accurate and, while he is always trying to improve his herd, John believes his cows have adequate milk to feed their calves and go back in calf each year.

John has four goals – get one calf from each cow every year; calve cows in as short a timeframe as possible to save labour; get cows back in calf as soon as possible and breed heifers to have good milk and fertility traits.

"When I started farming, none of this information was available to me. ICBF now creates excellent reports on all suckler herds in the country. It pulls it together in a simple farmer friendly report" (Table 1).

"This shows figures from my latest beef calving report, which I can use each year," John says.

At a quick glance, John can see the critical figures for his herd, such as calves/cow/year, calf mortality, calving interval and compare them with the national average.

John targets 1.0 calf/cow/year and plans to have that weanling for sale in May/June/July the following year. As can be seen from Table 1, John has 0.96 calves per cow per year versus the national average of 0.79. This means that out of 100 cows calved, John will have 96 live weanlings to sell versus the average for the country of 79. This is a difference of 17 weanlings to sell each year and, at an average value of €850/weanling, this equates to €14,450 every year.

Breeding replacement heifers

John always tries to pick a bull on his physical appearance but also his star rating. With this in mind, he purchased a Limousin bull bred from Ronick Hawk (RKH) in 2008.

"At the time, I looked at the bull and liked his appearance and shape. I needed a bull that would bring milk into the herd, if possible. I had a bull bred from Dauphin (DAU) and from looking at my heifers I believed that milk was going to be a problem in the future."

In 2008, the RKH-sired bull had a suckler beef value (SBV) of €90, which gave him four stars overall. He had four stars for weanling export and five stars for beef carcass. For John, this was great as he was producing weanlings for sale but also finishing some as bulls. The bull had three stars for daughter fertility and "this was what I was looking for, i.e. a bull that would have saleable bull calves and fertile daughters for replacements," John says.

This bull has been a great success. John has cows and heifers bred from him and, as can be seen from Table 1, they are fertile and have adequate milk to feed their calves. The target weight for bull calves in June is 400kg and 370kg for heifers and John has been consistently hitting these weights.

Table 2 shows the current replacement and terminal indices for the RHK bull.

He has a replacement index of €232 (which gives him five stars for each index both within and across all breeds) and, most of all, the reliability is at 68%.

Table 1: Figures from ICBF 2014 beef calving report

	John Kelly	National average
Calving interval	374 days	412 days
Calves/cow/year	0.96	0.79
Mortality – birth	1.30%	4.50%
Mortality – 28 days	1.30%	5.60%
Percentage of cows calving at two years	63%	17%

Left: John Kelly



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This replacement index of €232 means that each daughter of the bull will leave €232 extra profit more than the average suckler cow over the course of her lifetime (all of her calves and their slaughter value).

John's initial decision to follow the Euro-Star ratings has paid off and he has produced some top-quality heifers on the farm. Under the new replacement index, we can see that his expected daughter performance for milk is five stars and, again, reliability is at 71%. Reliability is obviously high for RKH-bred bulls because a lot of information has been gathered about his progeny.

Breeding with good genetics is cumulative. This means that if you cross a five-star bull with three/four/five-star heifers, your breeding will improve year on year. With this in mind and needing to invest in two new stock bulls, John purchased two five-star rated Limousin bulls.



As suckler farmers, we have to target one calf per cow per year and also breed heifers that will be fertile and have enough milk to rear a calf

APM sired bull

One of the Limousin bulls sired by Ampertaine Commander (APM) was purchased in spring 2014 and his Euro-Star ratings are outlined in Table 3. John liked the physical appearance of the bull and was also impressed with his Euro-Star figures. He is a 2013-born bull with a five-star rating for the replacement and terminal indices (within and across all breeds). "He should produce quality bull calves for sale and good replacement heifers with milk. I know that the reliability is low, but having bought this bull with five stars for the replacement index and from my previous experience with the RKH-sired bull, I am hoping that this bull will breed good performing heifers."

John also looked at the figure in the daughter milk index of +1.90kg and this means calves from this bull's daughters should be 1.90kg heavier at weaning than the average calf in the country. John believes using the replacement index, as well as the visual appearance, will give better results for every suckler farmer. This bull has either four or five stars for docility, carcass weight and carcass conformation and his maternal grand sire is Otan (OTX), who is very reliable for milk and fertility. If he produces all that is set out for him, he will be a great addition to John's herd.

"As suckler farmers, we have to target one calf per cow per year and also breed heifers that will be fertile and have enough milk to rear a calf," says John. "The replacement index gives me the confidence to pick bulls on their genetic evaluations and it is there as an extra tool for us all to use."

Table 2

Star Rating (Within Limousin breed)					Economic Indexes		Euro value per progeny		Index Reliability		Star rating (across all beef breeds)	
★★★★★					Terminal Index		€121		70% (High)		★★★★★	
★★★★★					Replacement Index		€232		68% (High)		★★★★★	
					Maternal Cow Traits :		€28		65%			
					Maternal Progeny Traits :		€204		71%			
					Dairy Beef							

Star Rating (Within Limousin breed)					Key profit traits		Index Value		Trait Reliability		Star rating (across all beef breeds)	
					Expected progeny performance							
					Calving difficulty (% 3 & 4)		+3.6%		85% (V High)			
					Breed ave: 4.95%. All breeds ave: 4.99%							
★★★★★					Docility (1-5 scale)		-0.07 scale		63% (High)		★★★	
					Breed ave: -0.06. All breeds ave: 0							
★					Carcass weight (kg)		+17kg		80% (V High)		★★	
					Breed ave: 23.88kg. All breeds ave: 22.88kg							
★★★★★					Carcass conformation (1-15 scale)		+2.22 scale		75% (High)		★★★★★	
					Breed ave: 2.11. All breeds ave: 1.84							
					Expected daughter breeding performance							
					Daughter calving diff (% 3 & 4)		+5.6%		57% (Average)			
					Breed ave: 4.55%. All breeds ave: 5.19%							
★★★★★					Daughter Milk (kg)		+4.3kg		71% (High)		★★★★★	
					Breed ave: -0.92kg. All breeds ave: 0.15kg							
★★★★★					Daughter calving interval (days)		-1.17days		61% (High)		★★★	
					Breed ave: 1.13days. All breeds ave: -0.41days							

Linear composites				Value	Reliability
Muscle	115	48%			
Skeletal	107	42%			
Function	119	27%			

Herd data quality index	
N/A	

Animal scored. Linear scores and weaning weights in evaluations
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Table 3

Star Rating (Within Limousin breed)					Economic Indexes		Euro value per progeny		Index Reliability		Star rating (across all beef breeds)	
★★★★★					Terminal Index		€148		30% (Low)		★★★★★	
★★★★★					Replacement Index		€217		26% (Low)		★★★★★	
					Maternal Cow Traits :		-€22		22%			
					Maternal Progeny Traits :		€240		30%			
					Dairy Beef							

Star Rating (Within Limousin breed)					Key profit traits		Index Value		Trait Reliability		Star rating (across all beef breeds)	
					Expected progeny performance							
					Calving difficulty (% 3 & 4)		+5.1%		35% (Low)			
					Breed ave: 4.95%. All breeds ave: 4.99%							
★★★★★					Docility (1-5 scale)		0.02 scale		45% (Average)		★★★	
					Breed ave: -0.06. All breeds ave: 0							
★★★★★					Carcass weight (kg)		+33kg		34% (Low)		★★★★★	
					Breed ave: 23.88kg. All breeds ave: 22.88kg							
★★★★★					Carcass conformation (1-15 scale)		+2.4 scale		28% (Low)		★★★★★	
					Breed ave: 2.11. All breeds ave: 1.84							
					Expected daughter breeding performance							
					Daughter calving diff (% 3 & 4)		+4.3%		16% (V Low)			
					Breed ave: 4.55%. All breeds ave: 5.19%							
★★★★★					Daughter Milk (kg)		+1.9kg		22% (Low)		★★★	
					Breed ave: -0.92kg. All breeds ave: 0.15kg							
★★★★					Daughter calving interval (days)		+0.17days		19% (V Low)		★★★	
					Breed ave: 1.13days. All breeds ave: -0.41days							

Linear composites				Value	Reliability
Muscle	124	50%			
Skeletal	129	47%			
Function	104	24%			

Herd data quality index	
N/A	

Animal scored. Linear scores and weaning weights in evaluations
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