

# Replacement strategy – AI

Over half of the 27,400 herds involved in the Beef Data and Genomics Programme (BDGP), currently use some level of AI. Feedback from the current round of BDGP information meetings, suggests this is likely to increase with the new scheme, as participants look to increase the number of 4-star and 5-star females in their herds. So what are the main advantages of using AI and how can herd-owners ensure that when using AI, they are meeting the scheme requirements regarding male and female replacement strategy.

**Advantages of AI:** The main advantages of using AI to breed replacement females are: (i) choice of sire, and (ii) data reliability. The ICBF Active Beef Bull List (see this week's *Irish Farmers Journal* AI supplement) indicates that there are almost 70 bulls available in AI catalogues that have 4 or 5 stars on the replacement index on an across-breed basis. This is across all of the main beef breeds (some 10 breeds in total), with an average replacement index of €108, and reliability of 73%.

**Bull Teams:** When using AI, herd-owners can decide to use a smaller number of well-proven sires (over half of the bulls on the active bull list are well-proven for milk and fertility) or alternatively use a higher number of younger AI bulls. The latter is a common approach in dairy breeding, where herd-owners prefer to capitalise on the higher index of younger AI bulls (albeit at lower individual reliability) by using a team of four to five AI bulls.

It is also a concept the ICBF and the partner AI companies (Munster Cattle Breeding, Progressive Genetics and Dovea AI) are promoting as part of the GEN€ IRELAND programme. The average replacement index of young bulls available through that programme is €125. More details on the GEN€ IRELAND Programme are also included in this week's *Irish Farmers Journal* AI supplement or alternatively contact ICBF directly on 1850 600 900 or 045 521 573.

Using AI to meet the scheme requirements? The primary scheme requirement in relation to AI is that 80% of the AI used on participating farms from 30 June 2016 is from a 4-star or 5-star AI bull on either the replacement or terminal index (on a within-breed or across-breed basis). While this should not present a problem at the AI bull level, there is a real risk that unless herd-owners understand how to effectively use AI, then they will not meet the scheme requirements regarding 4- and 5-star replacement females.

Work undertaken by Teagasc has indicated that herd-owners looking to breed a 1-star cow to get a 4- or 5-star replacement female, need to use a bull with a replacement index of €195 or more (see Table 1).

Similar cut-offs are given for other categories of females based on their replacement index. The key message from that piece of work is that AI gives farmers options regarding all potential breeding females on their farm.

Scheme participants should be mindful of this fact when deciding on which replacement strategy to apply on their farm in Spring 2016 and going forward in the new programme.



One of David's best cows. This nine-year-old SI X cow has a Replacement Index of €169 (5 star, top 1%). She calved for the first time at 24 months, has had eight calves with an average calving interval of 364 days and she weaned the heaviest calf of David's 2015 calf crop. She is sired by the old Simmental AI bull Hurtig (HRG).

## Q&A

**Q. Are all AI bulls 5 star bulls?** Absolutely not. Every bull has its own index and this should be looked at before deciding to use any bull. It is also important to remember that star ratings are used for both the Terminal and Replacement Index as well as other traits such as carcase or milk. A bull that is 5 stars on the Terminal Index, for example, might only be a 1 star bull on the Replacement Index. It is important to look for a high star rating on the index or trait you are looking to improve.

**Q. I have an AI catalogue from 2013. Can I go by the index figures in this?** The Euro-Star indices are updated three times per year (April, August and December). AI companies generally print one main catalogue per year and sometimes print updates with new bulls throughout the year. It is important to check bulls on the online bull search to check their most up to date figures on [www.icbf.com](http://www.icbf.com). Local AI technicians or area reps should be able to provide you with an up to date catalogue.

## FARMER FOCUS: DAVID KINSELLA

### AI gives me great flexibility

**Name:** David Kinsella, New Ross, Co Wexford.

**Farming system:** Suckler to beef.

**BDGP Cow Reference No:** 66.

**4 and 5 star females:** Cows 31; heifers 28.

**Stock Bull or AI:** 100% AI.

**Replacement strategy:** Breed all of my own.

**Why did you join the BDGP?** I'm always looking to improve and genomics will hopefully enable me to make better decisions, particularly around which females to retain for breeding. Going by the indices on my stock, the herd is already in a pretty good place in relation to the 2018 and 2020 targets, so it made total sense to join.

**Do you feel it will deliver for the national suckler herd?** I think it will help to improve things and going by the fertility performance statistics of the national herd, there is massive scope for improvement. Indices aren't everything, but by the same token appearance isn't everything either. A more balanced approach to breeding is needed.

**Do you use the Euro-Star indices when selecting AI bulls?** I have been for a good while. Up to now I've been using a mix of maternal and terminal bulls. I plan to place more emphasis on the Replacement Index in future while also maintaining good carcase performance. I like to see a bull with a carcase figure of 30kg or more. Docility is something which I also plan to watch very closely. Wild cattle are just a nightmare to have to deal with.

**What is your management routine around AI during the breeding season?** I start breeding heifers in mid-April and cows maybe two weeks after that. I get two of my own bull weanlings vasectomised every year and these are fitted with



David Kinsella.

chin balls. I check the animals two or three times per day. Cows observed in heat in the morning are served that evening and those at night are served the next morning. I use iron stakes and reels to make temporary roadways to the crush. My conception to first serve varies between 60% and 70% with everything calved in about eight weeks in spring. I had seven empty cows at scanning this year which is about 10%. I've been using AI a long time now and it gives me great flexibility through the choice of bulls and allows me to make a high level of genetic gain at a relatively low cost.

Table 1: Generating 4 and 5 star replacements.

Target Replacement Index	€74	€74	€74	€74	€74
Sample Cow stars	*	**	***	****	*****
Sample Cow Index	€10	€40	€60	€80	€100
Recommended bull index	€195	€165	€145	€125	€105

## DATES FOR THE DIARY

**29 October:** Teagasc/Munster AI Suckler Event, Castleisland Mart at 7:30pm.

**4 November:** Munster AI Suckler Event, Cashel Mart, at 7:30pm

**12 October to 5 November:** DAFM, ICBF, Teagasc BDGP Nationwide Information meetings. (One to one sessions: 5–8pm)

► **Thur 29th Oct:** Radisson Blue Hotel, Letterkenny

► **Tue 3rd Nov:** Treacy's West County Hotel, Ennis

► **Wed 4th Nov:** Mullingar Park Hotel, Mullingar

► **Thur 5th Nov:** Seven Oaks Hotel, Carlow

All meetings commence at 8pm