

MANAGING THE SUCKLER/PURE BREED COW TO GET HER IN CALF

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There is a lot of work that can be done to improve reproductive efficiency, a key driver of profitability in both suckler and pedigree beef herds in Ireland. While vets generally are familiar with the fertility metrics of the dairy herd, we may be less so with the Irish suckler herd. In 2025, the national average beef cow calving interval was 400 days (ICBF data). This data is measured across 41,765 herds calving an average of 19 females per herd. The average age of beef heifers at first calving in 2025 was 32 months. The six-week calving rate is particularly low and there are numerous reasons for that, many of which will be addressed in this article. Table 1 indicates where Ireland is currently relative to where we should be aiming.

The majority of suckler cows in Ireland calve in spring but there is a cohort, in particular pedigree cows, that calve in autumn (approx. 20 per cent). Beef cows are much slower than dairy cows to return to oestrus post calving, the average

time being 50-55 days according to Teagasc studies. There are a number of factors that impact this, including: body condition score, nutrition, and the cow-calf bond.

Body condition score at calving

One of the most important factors in getting beef cows back in calf is body condition score. In Ireland, a body condition score of 1-5 is used. For spring calving herds, the aim is to have cows calving down at a body condition score (BCS) of 2.5-3. The importance of BCS cannot be underestimated, cows that are too fat (BCS >3) calving down will have increased incidence of dystocia and have reduced appetites leading to excessive BCS loss post calving. Excessive BCS loss leads to a delay in the time from calving to first service as well as a reduction in conception to first service. If cows are too thin calving down (BCS < 2.0), it leads to difficulties around calving as they are not strong enough

Key Performance Indicator (KPI)	National Average	Target
Calves/per cow/per year	0.86	0.95
Calving interval (days)	396	365
Age at first calving (months)	32	24
Six-week calving rate (%)	55	80

Table 1: Key performance indicators. Source: Teagasc.

to withstand the stress associated with calving and give birth to less vigorous calves. It will take these cows two to three weeks longer to return to oestrus. Teagasc has shown that suckling inhibition (luteinising hormone release suppression) is worse in cows with a lower BCS. In herds where BCS is not uniform, cows should be grouped and fed accordingly so that optimum BCS is attained prior to calving. Ideally, first and second calvers should be grouped separately to mature cows and fat cows and thin cows should be separated to allow for additional feeding to be given to those that require it.

Body condition scoring should be carried out at a few key stages during the year: at housing, pre-breeding, and at weaning. Body condition scoring is a hands-on job; eyeballing is not sufficient. There are several body condition scoring guides available.

Nutrition

The nutrition of suckler cows pre-calving is of greater importance when it comes to determining the length of time from calving to first ovulation. It is important to assess silage quality, so that cow body condition score can be managed while cows are housed over the winter. Silage with dry matter digestibility (DMD) of 65-68 per cent, if fed ad-lib to cows, will result in the maintenance of body condition in cows prior to calving. If cows are under-

conditioned, they should be fed 2kg of concentrates along with silage of 65-68 per cent DMD or fed ad-lib silage of >70 DMD. Once calved, cows should be given access to high-energy and high-protein grass if spring calving or 2kg of concentrates and high-

quality >70 DMD silage. It is important to ensure adequate feed space both before and after calving. Inadequate feed space will affect the younger cows more and lead to body condition loss and delayed return to oestrus. The recommended feed space is 600-700mm using Teagasc guidelines.

Mineral status

As beef animals tend to rely heavily on grass and grass forages for their main

energy source, they may be suffering from mineral deficiencies. The best option is to test a representative group of animals from the herd to determine the best supplementation and management plan. It is also important to assess silage mineral content as it is the main diet for autumn calvers when they are going back in calf.

Age at first calving

While not in keeping with the article title, age at first

less

is

more





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Herd size	% Heifers calving 22-26 months			
	All	SCEP	Non-SCEP	SCEP & HerdPlus
National Average	19	21	16	23
10-14	18.9	21	17	23
15-19	16.8	18	15	19
20-29	19.1	21	14	24
30-39	18.5	19	16	21
40-49	22	23	18	26
50-74	24.7	25	21	26
75-99	25.4	28	11	29
100+	22.6	24	12	25

Table 2: Percentage of heifers calving 22-26 months. Source: ICBF.

calving is relevant to a cow's future reproductive success and is something that as vets, we can influence. The national average age for beef heifers at first calving is 32 months, while the target age at first calving is 24 months. Only 19 per cent of heifers calve down between 22-24 months; this has been shown to be the most profitable age to calve heifers. Table 2 shows the variation between herds in Ireland, including those participating in the Suckler Carbon Efficiency Programme (SCEP) and those herds that are members of Herd Plus.

By calving heifers at 24 months, they are less likely to be over-conditioned relative to heifers calving at the national average of 32 months. Teagasc has shown that heifers that calve down at 22-24 months have much greater longevity than heifers calving down at 31 months or more.

Bulls

Stock bulls play a huge role in getting beef cows back in calf as over 80 per cent of suckler calves born in Ireland are sired by stock bulls. Having appropriate bull power for the number of cows in the herd is critical, a young bull should only be given 10 females, while mature bulls should be given 20-30 females. Farmers should always do a Bull Breeding Soundness Evaluation (BBSE) within 60 days prior to breeding. While the number of bulls that are infertile is low (3-5 per cent) the number of sub-fertile bulls is much higher at 20-25 per cent. Just because a bull was fertile last year, doesn't mean he's fertile this year. With new bulls, a BBSE should be performed, and farmers should always observe mating ability as the BBSE doesn't evaluate this. Following the introduction of a new bull, it is advisable to artificially inseminate (AI) cows for 10-14 days post introduction to allow for a settling in period and avoid a potential lull in calving the following year. It is also important for bulls to be closely observed during the breeding season for illness, lameness, injury, and loss of body condition as any one of these can lead to a bull failing to serve or impregnate cows.

Heat detection

Heat detection in suckler cows can be challenging and the use of aids such as tail paint, scratch cards, and monitoring technology is hugely beneficial. The other option for heat detection is the use of vasectomised bulls. Vasectomised bulls are a very important tool on suckler farms in aiding heat detection; however, it does involve additional management as bulls should wear a chin ball filled with marker paint or an electronic indicator collar. It is also important to be aware that vasectomised bulls should be treated with the same

Day	Treatments
Day 0	Insert progesterone device & GnRH*
Day 7	Remove progesterone device, 2ml prostaglandin, 400iu eCG (PMSG)
Day 10	AI & GnRH*

*GnRH volume varies depending on the product being used.

Table 3: Beef cow fixed-time AI synchronisation programme for cows calved 35 days or more.

caution in terms of health and safety as breeding bulls. If a farmer intends to use vasectomised bulls, it is important that the vasectomy is carried out a minimum of six to eight weeks prior to the bull being used for heat detection. A chin ball marker or electronic indicator collar should be fitted to the vasectomised bull a few weeks prior to the start of breeding to allow for acclimatisation.

Teagasc studies have shown that the average time from calving to first ovulation is 50-55 days in beef cows. For first calvers, this can be up to 10-15 days longer. This longer time from calving to first ovulation for first calvers necessitates them calving down at the very start of the calving period. In relation to suckling inhibition, there is an interaction between suckling and the hypothalamic-pituitary-gonadal axis; continuous suckling suppresses the pulsatile excretion of gonadotrophins. This then delays the resumption of ovarian activity and thus oestrus. The bond works primarily off sight and smell. Decreasing the frequency of suckling through creep feeding and twice-a-day suckling (ideally, out of sight and hearing range), speeds up a cow's return to oestrus, with 85-90 per cent of cows showing heat within 18-22 days.

Synchronisation

According to 2025 ICBF data, only 18 per cent of suckler beef calves born in Ireland have an AI sire. The use of a synchronisation programme has multiple benefits and is a useful tool in beef herds. It eliminates the need for constant heat detection, compacting it into a few days which can be set at a time that suits. In small herds where buying a bull is hard to justify financially, it allows for all females to be bred in a short time period and it boosts submission rates hugely, as all synchronised animals are submitted for fixed-time AI which also helps boost the six-week in-calf rate. Typically, high submission rates in beef cows are hard to achieve without synchronisation due to the delay and considerable variation in return to oestrus post calving. The use of synchronisation also allows for an increase in potential genetic gain using artificial insemination.

The use of equine chorionic gonadotropin (eCG) has been shown to increase pregnancy rates significantly, especially in cows with lower BCS. It is also of benefit to cows who were anoestrus prior to synchronisation.

Following synchronisation, the repeats will occur within 18-24 days. Depending on the number of cows synchronised, the repeats may put too much pressure on the stock bull. It may be advisable to remove the stock bull on day 17, use some form of heat detection aid, such as scratch cards, tail paint, etc, and AI the repeats. For best results, cows should be a minimum of 35 days calved, have a BCS of 2.5-3.0, and be on a good plane of nutrition for a minimum of four weeks prior to, during, and after synchronisation. Cows that fail to become pregnant on the synchronisation heat generally have a normal conception rate on subsequent oestrus cycles.

Diseases that can affect getting cows back in calf

Several infectious diseases adversely affect fertility in beef cattle, including leptospirosis, bovine viral diarrhoea (BVD), infectious bovine rhinotracheitis (IBR), salmonellosis, and, more recently, bluetongue virus serotype 3 (BTV-3). Leptospirosis is associated with abortion, embryonic loss, and repeat oestrus. BVD causes embryonic death and abortion, while IBR contributes to failure to conceive, embryonic loss, and abortion. Salmonellosis is a recognised cause of abortion. BTV-3 has emerged as a significant reproductive threat, with reports of increased empty rates in UK herds during 2025 and confirmed adverse effects on fertility in the Netherlands following earlier outbreaks. Effective vaccines are available for these diseases, and herd vaccination programmes should be implemented to minimise infectious causes of reproductive loss.

Summary

As vets, we can have a huge impact on getting beef cows back in calf, leading to improved reproductive efficiency, increased genetic gain for farmers, and increased cow longevity, thereby driving profitability on Irish farms and generating work for veterinary practices. The key factors to consider are: BCS, nutrition, the stock bull, heat detection, and the use of synchronisation.

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READER QUESTIONS AND ANSWERS

1. WHAT PERCENTAGE OF STOCK BULLS ARE SUB-FERTILE?
A. 3-5 per cent
B. 10-12 per cent
C. 20-25 per cent
D. 15-20 per cent
2. WHAT IS THE AVERAGE LENGTH OF TIME FROM CALVING TO RETURN TO OESTRUS FOR BEEF COWS?
A. 50-55 days
B. 40-45 days
C. 25-30 days
D. 30-35 days
3. THE ADDITION OF WHICH HORMONE TO THE BEEF COW SYNCHRONISATION PROGRAMME HAS BEEN SHOWN TO SIGNIFICANTLY INCREASE PREGNANCY RATES?
A. GnRH
B. PG
C. eCG
D. LH

4. WHICH EFFECT DOES SUCKLING INHIBITION HAVE ON RETURN TO OESTRUS?
A. Decreases the number of days between calving and onset of oestrus through LH release suppression
B. Increases the number of days between calving and onset of oestrus due to LH release suppression
C. Decreases the number of days between calving and onset of oestrus through LH release
D. Increases the number of days between calving and onset of oestrus due to LH release
5. WHAT PERCENTAGE OF CALVES BORN IN IRELAND HAVE AN AI SIRE?
A. 10 per cent
B. 15 per cent
C. 17 per cent
D. 18 per cent

ANSWERS 1C; 2A; 3C; 4B; 5D.