

10 point plan for Improved Herd Fertility

Background:

Improving herd fertility is a top priority for the Lakeland Dairies/Teagasc joint programme. Fertility data for farms the region (Table 1) confirms that there is great potential for technical gain. The average calving interval stands at 408 days with over 6 weeks required to calve half the herd. This means that if the average herd starts calving on February 1st, only half the herd will be calved by St Patrick's Day. This represents a serious loss in early season milk and adds significant feed cost later in the year. Nonetheless, the top 25% of herds are close to hitting the important benchmarks demonstrating what can be achieved with good management.

Table 1 Analysis of key herd fertility measures on 970 Lakeland Dairies herds

	Average	Top 25%	Bottom 25%
Calving Interval days	408	371	445
Days to calve 50% herd	44	29	53
AI bred replacements %	16	22	13
EBI Fertility Sub-Index	55	76	39

With this in mind a number of herd fertility walks have been held across the Lakeland region within the last couple of weeks. Resulting from these farm walks, the joint programme team have developed a 10 point plan for improved herd fertility on Lakeland Farms.

10 point plan for improved fertility

1) 2 year old heifers: Better fertility and higher lifetime yields from heifers calving between 22 – 26 months when compared to heifers calving at 30 + months. Weight rather than age determines maturity for breeding, therefore getting heifers to target weights is critical for improved fertility performance.

Heifer Target weights at breeding		
HF	NZF	HF*J
330kgs	315kgs	300kgs

2) Increased usage of AI on maiden heifers: Maiden heifers as the best genetics in the herd are of great importance to improved herd performance. 3-6 weeks of AI should be used on the maiden heifers. All heifers should be submitted within the first 3 weeks. This can be done by using a synchronisation protocol. Synchronisation of heifers on an out-farm can ensure all heifers get at least one round of AI.

3) Fertility sub index: Breeding for fertility is essential as it accounts for 20% of the difference in calving interval within the Lakeland Region. Bulls should be selected on their fertility sub index of **>€120**. Do not forget about other traits. Fat and Protein kgs >25kgs, P% >0.11% and F% >0.11%. Easy calving bulls should also be used to reduce the number of difficult calving's and problem cows.

4) Quality of stock bull. Bad stock bull genetics can have a detrimental effect on herd fertility. Try to reduce the proportion of stock bull bred heifers within the herd. If a stock bull is being used ensure he is genomic tested and is hitting the targets outlined above for AI usage.

5) Improved Submission rates. Getting 90% of the herd submitted in the first 3-4 weeks will reduce the number of May and June calved cows within the herd. Good record keeping is important to achieve these targets. Identifying problem cows, body condition scoring the herd and applying a form of heat detection will be required to reach the submission rate target

6) Heat detection: Heat detection should start 4 weeks before the onset of the breeding season. Apply tail paint to the herd and record heats. Any cows that have not shown heat can be presented for examination for the vet. Getting all cows cycling at start of breeding season will improve the herd submission rate. Tail paint or other heat detection aids should continue to be used for the duration of the AI season

7) Identify problem cows: Cows that have had difficult a calving, had twins, retained placenta or had milk fever should also be presented for examination by the vet as they have an increased probability of being dirty and possibly not cycling.

8) BCS the herd: Having cows in the correct body condition score at breeding is essential for improved conception rate. The whole herd should be BCS scored 4 weeks before breeding start date. Cows that are less that 2.75 BCS should be identified and once a day milking is an option to get the cow in correct BCS for breeding.

9) Improved diet quality: To reduce the number of cows in poor BCS improved diet quality is important. Cows should be BCS in the autumn time. Cows that are in poor condition should be given a longer dry off period and fed to reach a target BCS of 3.25 at calving. Access to early grass and improved silage quality in conjunction with adequate supplementation will help reduce the sudden body condition loss post calving.

10) Disease status of herd: BVD, IBR, Leptospirosis, Johnes, Neospora and liver fluke can all have a negative impact on fertility. A bulk milk tank screening four times a year will help identify an outbreak in any of these diseases.

The estimated cost of infertility on an average Lakeland farm of 60-70 cows is in the region of €20,000. Therefore herd fertility cannot be ignored. Implementing the 10 point plan for improved fertility will dramatically increase the profitability of your dairy enterprise.

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