

An Introduction to Benchmarking for the Suckler Herd

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What is benchmarking and why should I do it?

Benchmarking is a useful management tool, allowing you to take an in-depth look at your farm business. This can be useful to review on a regular basis to track progress of the herd and you can also benchmark your own herd against other herds of similar size or management system through various discussion groups, monitor farms or costing programmes.

Benchmarking provides a basis for comparison and a starting point for setting targets. By comparing your herd's performance against industry targets or other herds, it allows you to identify where the strengths and weaknesses are in the business and where there is room for improvement. There are a number of benchmarks or KPI's (key performance indicators) to look at, both physical and financial. This fact sheet will detail some of the most important KPI's to monitor and what factors to consider to help improve performance in the suckler herd.



Key benchmarks for the suckler herd

The cattle year can be divided into four main stages, with relevant KPIs, these are shown below.

1. Mating/Bulling

KPI	Calculation	Target
Cow to bull ratio	Cows & heifers put to the bull / bulls used	Mature bull – 30-35 cows Young bull – 10-20 cows max. Rule of thumb 1 cow to each month of young bull's life.
Barren cows %	Cows & heifers barren / number bulled x 100	<5%
Bulling period (cows)	Weeks the bull runs with the cows	9 weeks
Bulling period (heifers)	Weeks the bull runs with the heifers	6 weeks

2. Calving

KPI	Calculation	Target
Calves born alive per 100 cows bulled	$\text{Calves born alive} / \text{cows \& heifers bulled} \times 100$	95%
Cows calving within first 3 weeks	$\text{Calved in first 21 days} / \text{cows \& heifers bulled} \times 100$	65%
Cows calving within first 6 weeks	$\text{Calved in first 42 days} / \text{cows \& heifers bulled} \times 100$	90%
Cows with calving interval below 370 days	$\text{Cows with calving interval below 370 days} / \text{cows put to the bull} \times 100$	>90%
Calves reared	$\text{Total calves reared} / \text{cows \& heifers bulled} \times 100$	94%
Calf mortality (birth – weaning)	$(\text{Calves born alive} - \text{calves weaned}) / \text{cows \& heifers put to the bull} \times 100$	<3%

3. Weaning and Growing

KPI	Calculation	Target
Calves weaned per 100 cows and heifers put to bull	$\text{Calves weaned} / \text{cows \& heifers put to the bull} \times 100$	>94%
Age at weaning	Average calf age at weaning (days)	220 days depending on availability of quality forage and conditions of the season
Weight at weaning	Average weight at weaning	
Growth rate to weaning	$(\text{Average weight at weaning} - \text{birth weight}) / \text{Average days old at weaning}$	1kg/day
200 day calf weight	$(\text{Average growth rate to weaning} \times 200) + \text{birth weight}$	
200 day calf weight per cow & heifer bulled	$(\text{Average 200 day weight} \times \text{calves weaned}) / \text{cows \& heifers put to the bull}$	



5. Replacements

KPI	Calculation	Target
Replacement rate	$(\text{Cow deaths} + \text{cows \& calved heifers culled}) / \text{cows \& heifers bulled} \times 100$	<13%
Cow mortality	$\text{Cow deaths} / \text{cows \& heifers put to the bull} \times 100$	<2%
Cows culled	$\text{Cows \& calved heifers culled} / \text{cows \& heifers bulled} \times 100$	<6%

Setting targets and monitoring performance

No doubt you will have an idea of where the current bottlenecks or issues are to production in the herd, whether it is poor fertility or calf mortality. Whatever the area you wish to target for improvement that is where you should drill down into some of the KPI's to benchmark yourself against, identify the possible cause and make changes. You may need to take advice on how best to improve and monitor results on a regular basis. Every KPI must be specific or have a definition, a target goal and be based on the SMART goal's principles:

- Specific
- Measurable
- Achievable
- Realistic
- Timebound



It is a good idea to keep staff involved in setting KPI's so they are clear on what needs to be recorded so KPI's can be easily calculated and reviewed regularly. You may wish to set a time period for when to achieve the target goal. This will help get staff better engaged with what you are trying to achieve, as well improve motivation and job satisfaction when targets are reached.

Carry out a yearly review of herd performance once the calving period is over while it is fresh in your mind, with records close to hand. Bear in mind that some improvements may take years to show, especially if you are making changes to breeding policy and genetics.

Example KPI assessment and factors to consider for improvement

KPI – Calves reared per cows/heifers put to the bull

The aim of the suckler herd is for each breeding animal to produce a healthy live calf every year (with a calving interval of 365 days). This is a key measure of efficiency, with herds producing more weaned calves per 100 cows tending to be more profitable.

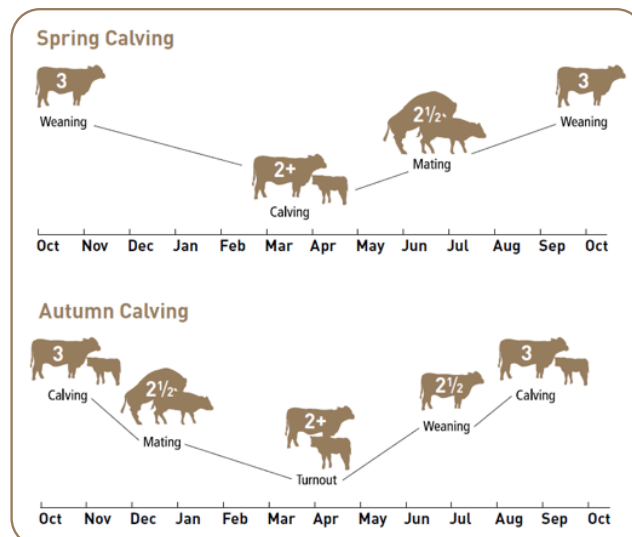
The target is to rear 94%

A target of 94% is high and depending on your starting point, 90-92% may be a more realistic target to aim for initially.

Why is the target not being met?

There are a number of factors that can influence herd fertility and therefore number of calves produced. Look at calving records from previous years and identify if there have been previous fertility issues. Calf health problems and mortality rates are worth investigating. The five main areas to target to improve fertility are discussed below:

1. Nutrition to achieve target body condition score. Poor body condition is one of the main reasons for bad fertility. Cow condition at bulling is really important for ovulation and good conception rates. Fertility is also influenced by body condition in the pre-calving period, which is when the eggs to be fertilised are being developed. Nutrition and feeding management are key to achieving the target body condition score for calving and service. Discuss cow condition and nutrition with your vet and nutritionist to see where improvements can be made. Target body condition scores for spring and autumn calvers throughout the year are shown below:



https://www.qmscotland.co.uk/sites/default/files/qm2879_suckler_herd_a5_brochure_aw_0817_single_0.pdf

2. Avoiding difficult calvings. Not only can they affect future cow fertility, the calf is more likely to suffer with poorer colostrum intake and increased risk of dying in the first few weeks of life. Tips to avoid difficult calvings:

- Avoid overfat cows at calving.
- Select bulls based on estimated breeding values (EBV's) and focus on calving ease, low birth weight calves and a short gestation length.
- Check maternal calving ease figures for bulls if breeding your own replacements.

3. Management of replacement heifers. Heifers must be at their target weight for bulling (65% of mature body weight) at 14-15 months of age. Close attention to nutrition and condition is important for both 1st and 2nd calvers, especially if calving heifers as 2 year olds. Heifers tend to be more fertile if they are born earlier in the calving period as they tend to be heavier at bulling. Restrict heifer mating periods to 6 weeks. A compact calving period for heifers is more likely to lead to compact calving as cows. Replacement heifers should be bred from bulls with good maternal EBV's. Lastly, manage 1st and 2nd calvers separately. They have higher energy requirements as are still growing, and body condition, milking performance and fertility can suffer if they are not fed appropriately.



4. Bulls – selection, soundness and fertility. Do not select a bull just on looks alone. Look at EBV's with emphasis on the following traits:

- a. Calving ease
- b. Calf growth rates
- c. Carcase characteristics
- d. How milky and fertile his daughters are

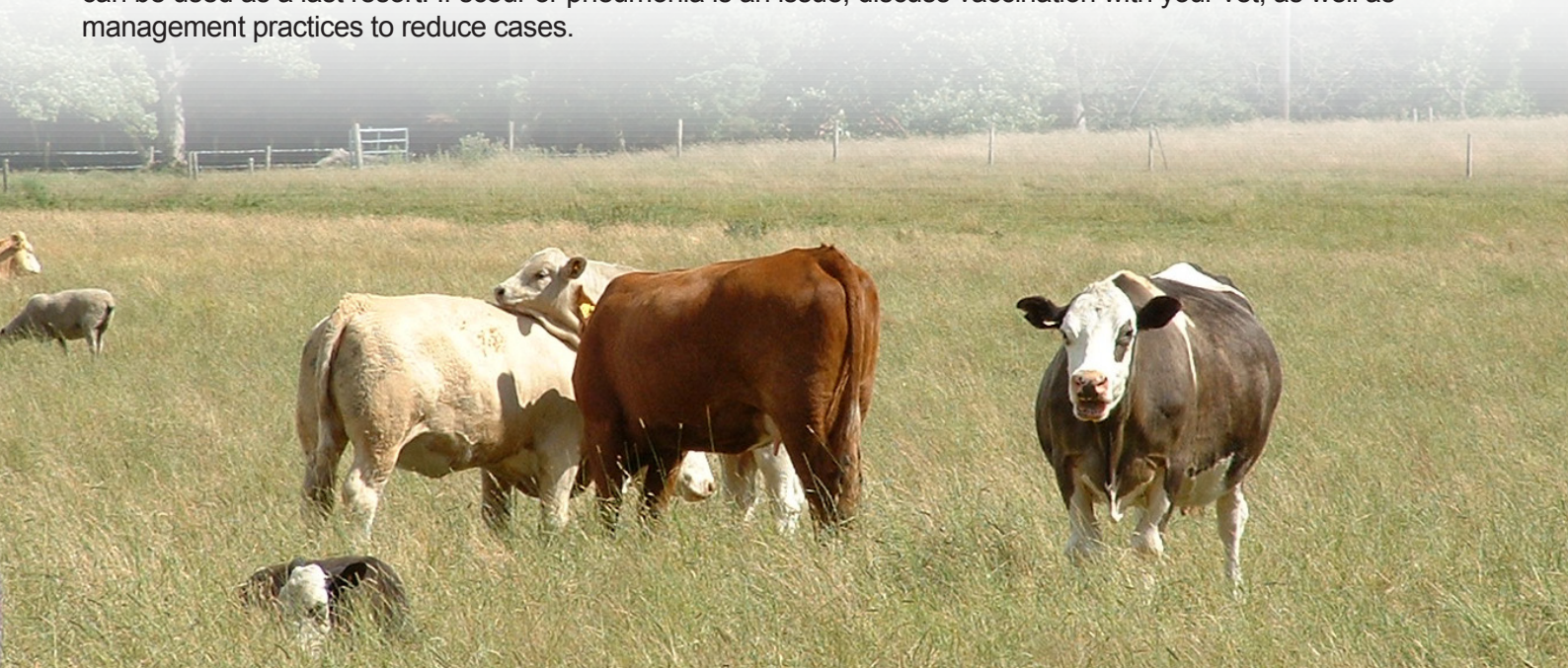
All bulls should be semen tested, with a bull MOT carried out 10 weeks before the start of the breeding season, paying close attention to the five T's outlined below:

KPI	Calculation
Toes	Check feet and mobility.
Testicles	Feel – should be firm (like a tennis ball) with no lumps/abnormalities Measure – minimum scrotal circumference of 34cm for 2-year olds of most breeds.
Tone	Aim for body condition score of 3 to 3.5 at the start of the breeding season.
Treat	Vaccinations (e.g. BVD and Leptospirosis), internal and external parasites.
Test	Bull breeding soundness examination for physical soundness and semen quality.

Do not overwork bulls, especially young bulls. A good rule of thumb is for young bulls to serve a maximum of 1 cow per month of his life e.g. an 18-month-old bull should service no more than 18 cows. Mature bulls (over 3 years) should be able to cover up to 50 cows in a nine-week period and achieve 95% in-calf.

5. Maintaining good herd health status. Infectious diseases impact on both cow and bull fertility, through reduced conception rates, embryo loss, abortions and stillbirths. They can also reduce calf health and growth performance and increase mortality rates. The most important diseases are BVD (bovine viral diarrhoea), leptospirosis, Johne's and venereal campylobacter infection. A common route of infection into the herd is buying in stock which are disease carriers, although appear healthy. Discuss biosecurity with your vet and have a health plan in place. If you must buy in stock, buy from accredited herds.

In addition to all the above, getting calves to weaning means having to minimise calf losses from birth onwards, with the first 4 weeks being the most crucial period. Check calves have had sufficient colostrum (10% of birth weight) within the first 6 hours after birth. Stomach tube or bottle feed all calves that have a difficult calving or a weak suckle reflex. Ideally use the dam's own colostrum, alternatively frozen colostrum or artificial colostrum can be used as a last resort. If scour or pneumonia is an issue, discuss vaccination with your vet, as well as management practices to reduce cases.



Tips for getting started with benchmarking

- Keep good, accurate records – if you do not measure it, you cannot manage it! Record fertility information over the bulling period i.e. note down heats and conceptions. Calving records are also important, logging cow number, calving date and calving problems/health issues for both cow and calf. Recording ease of calving can help with future decisions on what cows to breed from and what to cull.
- Compare your data – against your own herd year-on-year but also against industry targets or top performing herds.
- Select a few KPI's to focus on – do not try to do everything at once. Focus on the weaker areas of the business identified through benchmarking to tackle first.
- Join a discussion group – you can compare your herd against others and share ideas and practices that you can implement on your own farm.

Further Information

There are excellent industry tools freely available for benchmarking including,

- [Farm Management handbook](#)
- [QMS Cattle and Sheep Enterprise Profitability in Scotland](#)

