The GEORGE Farm Vets

NEWSLETTER - November 2021

Beef focus—Heifer selection

Yearling heifers - breeding the best

Now the weather has taken a distinctly wintery turn and stock head indoors for the season it would seem a timely moment to think about future breeding targets. **Heifers are a fundamental component of any breeding plan;** they represent both the genetic foundation of future breeding stock and a significant investment in terms of rearing costs. **Getting the best results from these heifers relies on selecting the most fertile, efficient and suitably sized replacement stock for breeding**.

A pre-breeding examination for heifers gives an objective assessment of how suitably sized heifers are and gives an indication of future reproductive performance to whittle down the best of the best. **A comprehensive pre-breeding examination consists of two main steps;**

1) **Pelvic score assessment (PSA)**

2) **Reproductive tract assessment (RTA).**

Pelvic score assessment (PSA)

Pelvic scoring provides an indication of how adequate pelvic size is, relative to predicted calf size. This helps select the correct bull for your heifers. It can also identify heifers that are likely to have a difficult calving. Crucially, the age and weight of the heifers must be known to allow an accurate estimate as these factors influence the prediction substantially.

It goes without saying that PSAs help to narrow down suitable breeding candidates, however factors such as sire direct calving ease EBVs must be taken into account.

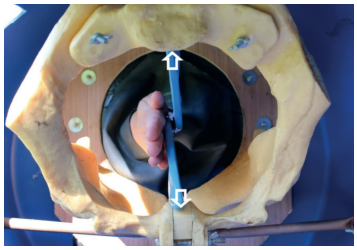
Pelvic scoring at 12-13 months is a great way to target breeding for optimum calving success whilst providing an early decision tool to get the best economic return on less suitable heifers, for example, as fattened stock.

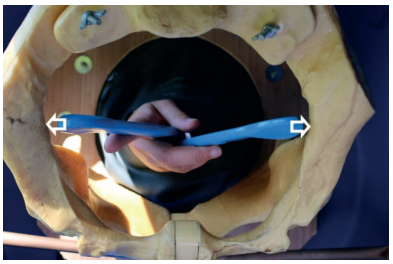
Key breeding targets for heifers

- Bodyweight: averaging 60% of predicted adult body-weight at service
- Achieve puberty (cycling): 60 days or ideally two bulling cycles prior to first service
- Breeding age: to achieve a 24 month calving first service at 15 months
- Timing: aim to breed heifers at the start of the breeding period over a shorter period (6-8 weeks) to capitalize on fertile stock and ensure heifers have the most time to get back in calf second time around.

	Two-year-old (£/head)	Three-year-old (£/head)
Heifer development costs (to first calving)	1,500	2,100
Number of calves produced during lifetime	5	4
Total productivity within 10-year period	29 calves + 5 calves	10 calves + 4 calves

*AHDB: Breeding, selecting and managing beef replacement

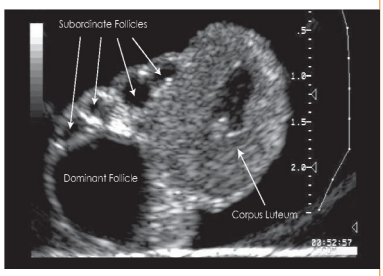




Reproductive tract assessment (RTA).

RTA is an additional effective tool for early identification of any potential fertility issues. It is recommended this is performed alongside a pelvic score around 60-30 days pre-breeding and the results interpreted together.

The RTA identifies heifers that have reached puberty (typically 12-13 months) and are cycling appropriately before breeding. The score is determined by taking ultrasound measurements of uterine diameter and assessing the ovaries for the presence of follicles over 13mm and a corpus luteum (CL). A higher score correlates to a higher pregnancy rate.



It is vital heifers are cycling well pre-breeding to ensure optimal conception rates that sets them up to calve early in the block and carry on as efficient breeding animals for years to come. Identifying animals that have not reached puberty (are not cycling) before breeding allows early effective management interventions, such as whether to recheck at breeding or re-manage as fattening stock.

Further, an RTA exam helps to inform how well heifers have developed during the rearing period, identify issues with growth rates and can be used before starting fertility protocols to predict response to synchronization.

It goes without saying that multiple factors, such as pre and post-weaning nutrition, infectious disease control and genetic selection have a large bearing over breeding success. However, these tools help to assist decision making to avoid unnecessary time and cost when breeding inappropriate replacements.

Below is an example of how the PSA and RTA might be combined to allow decision making around breeding stock. For example, a heifer with a small pelvic size that has reached puberty (RTA 4-5) is likely to have a smaller pelvis as a cow, whereas a pre-pubescent heifer (RTA 1-2) with a small pelvis may develop further at the onset of puberty and a pelvic recheck may be appropriate.

If you have any questions regarding heifer selection please do give your vet of the office a ring. Here's to a productive winter!

Will Balhatchet BVSc MRCVS

Cultivate

Continued Professional Development

Practical on-farm learning for a sustainable future

Cultivate CPD has been created due to the demand we have seen from within the veterinary and farming industries for quality training, provided by companies and people who are actually implementing the things they teach on a day-to-day basis. The George Farm Vets has a long and successful history of practical education. Cultivate CPD also allows us to make the most of the skills we have within our team and to positively affect the health and welfare of the animals by improving the skills of the vets and farmers looking after them.

Our Vet-led courses will be aimed at providing events and on-farm learning for Vets, farmers and all allied professionals. Future courses will be advertised on:

CultivateCPD.co.uk (our website)

Our social pages are already alive with content.

	Reproductive tract assessment (RTA)				Pelvic score assessment (PSA)		
Animal No.	Uterine diameter	Follicle size	CL presence	Score (1-5)	Pelvic area	Maximum deliverable birthweight	Comments
00001	>20mm	>10mm	+	5	232cm^3	80kg	RTA: Grade 5, ready to breed. PSA: Pelvic score and predicted calving weight suitable for appropriate sire EBV.
00002	15-20mm	5-10mm	-	2-3	288cm^3	99kg	RTA: Grade 2 - recheck pre-service for CL, consider for synchronization or non-breeding. PSA: Pelvic score and predicted calving weight suitable for appropriate sire EBV.