

WENSUM VALLEY VETS FARM

NEWSLETTER – APRIL 2023

Rice Pelvimeter Use in Cattle:

The Rice Pelvimeter is a calliper style device used to measure (in cms) the width and height per rectum of the pelvis to determine the internal pelvic area of cattle.

This allows an accurate gauge of pelvic conformation and internal size, influencing decisions on:

- Which bulls to breed with
- Replacement heifer selection
- Identifying those at higher risk of dystocia (problems during birth) due to conformation
- Determining breeding stock

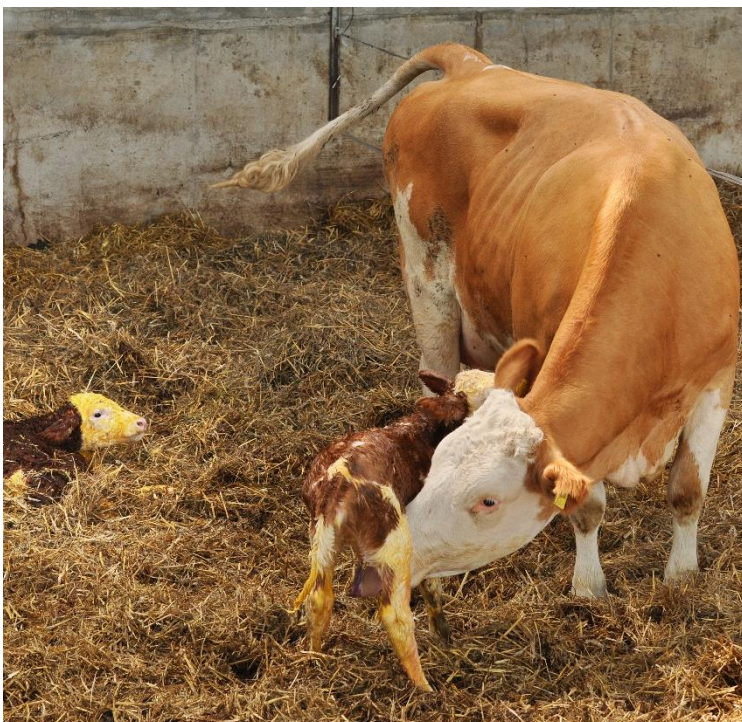
While there are multiple factors that also should be considered, pelvic measurements are useful especially at detecting maiden heifers unsuitable for breeding due to small pelvic areas/ abnormal conformations.



Why?

Calving difficulties usually occur in heifers, with the main factor being foeto-maternal disproportion - calf size/weight too large for the internal pelvic area of the dam.

Pelvic conformation and size is heritable – being passed down from dam/sire. A larger pelvic diameter allows calves to be delivered unassisted, therefore making it a desirable trait. With assisted calvings incurring a cost to the farmer – be that in calf/dam deaths, veterinary costs, increased labour or culling as a result of poor fertility in consequent years, it is logical to select for animals with larger pelvic areas and breed them with bulls with good-estimated breeding values.



What Can Be Achieved?

Short Term: Heifers with abnormally small or abnormally shaped pelvises can be removed from the herd before breeding occurs, helping reduce the incidence of dystocia.

Long Term: if breeding your own replacement heifers, you are selecting away from genetics resulting in narrow pelvises.



How to Use:

Two measurements are made rectally – vertical and horizontal – using the pelvimeter at the widest points of the pelvis. Most cattle will have a larger vertical reading than horizontal. The surface area of the pelvis can then be calculated by multiplying the two values together.

The measurements can be compared against a known minimum for native or continental breeds and should be taken 2-3 weeks before the breeding season.

Pelvic measurements have the greatest value when applied within a breed, age group or population e.g. home bred replacements.

Research:

Pelvic area grows at a constant rate from 9-24 months (around 8-10cm² per month), continuing at a slower rate until maturity is reached. Yearlings with the smallest pelvic areas compared with the herd will likely remain the smallest at maturity. Some farmers may use findings to aid decisions regarding breeding stock selection.

Factors affecting pelvic area in heifers:

1. Genetics (both maternal and paternal)
2. Breed (longer/shorter gestation lengths affecting size)
3. Nutrition

While pelvic measurements are certainly useful, other factors affecting likelihood of dystocia should always be considered. Measurements taken should be used alongside other data to make decisions regarding desired characteristics for future stock.

Any questions please do not hesitate to contact us on 01328 864444 or email us at info@wensumvalleyvets.co.uk