Many of the Veterinary Centre team have attended the recent Veterinary Conference in Christchurch. There was alot of material presented and opportunities to network. We have attempted to summarise some of these papers and research, for a EwesNews Extra.

Breeding Sheep with Resistance and/or Resilience to Internal Parasites

Dave Robertson BVSc BSc Oamaru Veterinary Centre

Lambs up to the 6 month of age stage, that are bred more to ignore internal parasites (resilient) have higher egg output but tend to grow faster (+2kg over 120 days). From 6-8 months (Autumn) their immune system starts to fight the worms, they can scour but the lucky ones get over the challenge and egg counts lower. Growth rates also slow.

With more worm-resistant sheep, their immunity kicks in early and they have lower egg counts sooner. They can tend to grow slower but contaminate the environment less. After 8 months they tend to catch up with resilient types as they handle the later

worm challenge better.

So what is better? If more drenching is used and/or parasite challenges are low then the Resistant and resilient advantage is reduced.

Selecting for lower FEC is the easiest parameter to measure. FECs are not that related to dag scores or growth rates. A balanced breeding programme would look at all of those 3 traits to identify what animals were performing best in the face of worm challenges.



Dave Robertson BVSc BSc Oamaru Veterinary Centre

The animal is at the centre of winter grazing considerations. Vets need to be involved, we are coming to grips with the terms and the concepts required. This is a summary from the Intensive Winter Grazing Taskforce short term expected outcomes:

- 1. Ensure our animals give birth in the right environment.
- 2. Be prepared for all weather conditions.
- 3. Animals can easily access acceptable drinking water.
- 4. Plan for successful winter feeding.
- 5. Animals can lie down comfortably.
- 6. Work together to provide care to our animals during winter.
- 7. Find opportunities to improve.



A few things that can assist these points are:

Accurate pregnancy testing records, wintering in calving groups, and understanding gestation length variations with some genetic lines. More baleage reserve with contingency plans for adverse weather. Sacrifice grass paddocks. Longer crop interfaces. Double fencing to prevent break-outs. Grass lead-in to crop (6-10m) for transition and for lying down. Provide enough feeder space (20cows /feeder). Use portable water troughs to graze crop in optimal direction and utilise back fencing to prevent widespread pugging. All these things will take a bit more planning, cost and effort to execute, but will be worth it to have better out-comes for livestock.

Vet's role will be assisting you as a friendly practical point of contact to offer advice when required. We are also there to trouble shot when it's not. Better to talk to us than an MPI investigator...

FTAI in Heifers - Gains to be made

EUAN TAIT BVSc Waimate Veterinary Centre

During the NZVA conference last week, we had an extremely entertaining and passionate talk from Enoch Bergman, a cattle vet in Australia. He recently undertook a study to measure financial benefits of Fixed Time Al in heifers in commercial beef herds. Both financial and genetic gains for herds were a good outcome of the trial.

The trial enrolled 15 groups of heifers across 10 properties for 3 years and farmers were subsidised throughout. Interestingly, more started the program, deciding to forego the subsidy and enlist all their heifers into FTAI before the end of the trial as they saw such good benefits.

These benefits included:

- More breeding opportunities within a mating window
- Improved pregnancy rates (on average a 3% improvement overall, with 70% holding to FTAI)
- Improved calving pattern (64% of FTAI heifers calved before or on expected start of calving date compared to just 22% of natural matings)



- Less calving issues and heifer deaths
- Likely to wean more and heavier calves
- Improved breeding outcomes in future years
- · Advancement of genetics

As ever with FTAI and synchronisation on beef farms, the burning question is how much does it cost and what's in it for me? Variabilities will be present depending on your farm and bull requirements and calf prices, but in this trial the average return on investment per heifer was an extra \$90 (AUD) in comparison to natural mating. Choosing which heifers to enroll into the program is important too as weights at mating play a big part in conception rates — synchronization won't fix issues with poorly grown heifers.

Investing in the best possible genetics for your best possible genetics (your heifers) and choosing sires with appropriate EBVs for your system will set your heifers on a path of better future profitability, improved pregnancy rates and weaning more kg of calf per mated heifer. Even in the commercial setting, integrating FTAI is a good financial investment with good returns and provides the added benefit of improving your herd's structure and genetics. Given how tough a season we have just had in certain areas, tightening up calving with synchronisation could be a great way to get your herd's calving pattern back on track.



Some of the Veterinary Centre team at the New Zealand Veterinary
Assn Conference 2021 held in Christchurch

Taking genetics to the next level in your beef herd

George Smith BVSc BSc Oamaru Veterinary Centre

INHERIT SELECT now provides beef farmers the opportunity to select heifer replacements based on genetic merit.

- In 2021 Zoetis have released a new genetic testing program called INHERIT SELECT, which is an innovative, multi-breed genomic test providing genetic predictions for commercial beef female replacements.
- The test delivers Genomic Expected Progeny Differences (GEPDs) and percentile rankings for 16 traits and three economic indexes as well as sire parentage and breed composition.
- This is a new and exciting tool that will allow our beef farmers to take
 the genetic potential of their beef herd to the next level. It is well suited
 for farmers already selecting bulls on Estimated Breeding Values (EBVs)
 to align with the farms desired genetic makeup.
- INHERIT SELECT will allow farmers to make early replacement selections, therefore reducing heifer rearing costs as well as accelerating your herds genetic gain and productivity by selecting females with favourable genetic traits.
- Testing involves the farmer taking a tissue sample with a tissue sampling unit (same as BVD). Testing can take place at any time, for example, at weaning.

