

Case Study

INFERTILITY INVESTIGATION

VETERINARIAN

Dr Chris Hallet, Coolah Veterinary Clinic

Chris grew up in the Muswellbrook and Sandy Hollow areas before completing university at Sydney University. After graduating he worked in several cattle veterinarian roles including a dairy medicine internship in the US, several years in the UK and time in the Atherton Tablelands. In 2005 he settled in Coolah, purchasing the clinic from his father-in-law Mark Powell. Chris's main area of interest and expertise is beef cattle medicine and production.



CASE REGION OF ORIGIN

Central West NSW

CASE BACKGROUND

1000ha mixed farm at Dunedoo in NSW Central West. Operations include:

- 200 cow self replacing cattle herd with Spring and Autumn calving periods
- 800 ewe self replacing Merino flock
- Cash and grazing cropping

Owners had never vaccinated for Pestivirus in the past. Testing to investigate poor conception rates had shown naive status on a couple of occasions over the past several years.

Following the 2021 Spring calving (July–August), 3 calves were noted to have died during October with no reasonable explanation (ranging from 1–3 months of age). Ear notch tests were performed on these 3 animals in house with IDEXX POC tests and all 3 were positive.

Following this, it was recommended that all 2021 Spring and Autumn calves be ear notch tested in October 2021 to identify any further PI animals with the following results:

- 46 Autumn born weaner heifers and 45 Autumn born weaner steers – ALL NEGATIVE
- 100 Spring born calves – 22 POSITIVES

At this stage it appears that virus was introduced early in 2021 with only Spring born calves affected at this point. The owner does recall an ill-thrifty looking animal running on the neighbours property adjacent to a mob of pregnant Spring calving cows and suspects that this is the source of infection. Retesting of all PI animals will be carried out to identify those that were only transiently affected and it has been recommended that dams of PI calves are tested to rule out a longer term history of infection on the property.

“Pestivirus losses are common on cattle properties in Central NSW and have become an increasing concern. Our veterinary practice has seen substantial economic losses of more than \$250,000 and the subsequent emotional stress which occurs with these disease incursions”.



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“The disease has often occurred when farmers purchase cattle to rebuild their herds after the drought and fail to mitigate the risk of the disease. With the current pricing and supply constraints of replacement breeders, I now recommend all cattle are vaccinated with Pestigard”.

Going forward, an AI program was carried out in late September with Spring calving heifers and some cows prior to detection of the virus within the herd. There is a high likelihood that these heifers would have been exposed to PI calves at around this time, so the full effects of the infection remain to be seen. Pregnancy testing will be carried out in the near future to determine conception rates to the AI program.

All Autumn 2022 born calves will be tested for PI status at calf marking prior to cows being re-joined to ensure that this mob has not been exposed and all Spring 2022 calves will be testing with the expectation that more PI animals will be detected. Testing will continue each year prior to re-joining until no PI calves are detected.

A blanket vaccination program is in the process of being implemented with all breeding females having had their 1st dose of Pestigard. To keep things simple, all breeders will be vaccinated rather than trying to determine exposure rates for all different mobs/etc.

The economic impact cannot be fully assessed at this stage as the effects of the disease are still unfolding however so far include:

- Loss of 20-30 affected calves in 2021 (including those that failed to produce a calf after being PTIC = ~\$1500/head = ~\$35 000
- Cost of testing for 2 years until eradicated = ~\$2500/year = ~\$5000

- Impact on AI program?? - \$2600 total costs – unsure of losses
- Impact on Spring joining conception rates??
- Likely loss of PI calves at calving in Spring 2022??

In addition to production costs and losses, the owner had only recently purchased the property through family succession planning and as such the financial toll was much worse than could have been otherwise.



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