



Project Number & Title: 1A-119 Using an anti-inflammatory to improve piglet survival and growth rates

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Aims and Objectives

The study aimed to deliver an efficacious and cost-effective method of alleviating sow discomfort during and after farrowing with attendant benefits to sow behaviour and colostrum/milk production. The objective was to improve neonatal piglet growth and survival leading to the weaning of larger litters of heavier pigs by injecting sows before farrowing with either a non-steroidal (NSAID) or steroidal (SAID) anti-inflammatory drug.

Key Findings

NSAID treated older parity sows (P5+) gave birth to fewer liveborn and more stillborn piglets when compared with the SAID and CONTROL groups. Facial injuries thought to be caused by oral-facial stereotypes were reduced in parity two to four sows by SAID administration. There was no treatment effect on rectal temperature of the sows, or incidence of mastitis, but piglet serum protein levels tended to be reduced in the NSAID litters. None of the plasma markers of inflammation and stress were altered by treatment. Whilst average feed intake was improved by both NSAID and SAID medication, piglet mortality and growth remained unaffected. Farrowing rate after subsequent re-breeding was reduced by almost 40% in the NSAID treatment.

Application to Industry

As a result of the outcomes in this study the following recommendations have been made:

1. Injecting sows with a non-steroidal anti-inflammatory prior to farrowing reduced the number of piglets born alive, and impaired subsequent farrowing rates and so should be avoided.
2. Steroidal anti-inflammatory administration can be used to improve crated sow wellbeing as fewer facial injuries and improved feed intake were observed, but its use does not improve piglet survival and growth.