



Established and supported under the Australian Government's Cooperative Research Centres Program

Pork CRC Research Summary
Subprogram 2D: *Risk Factors associated with summer infertility in sows and gilts (Preliminary Report)*

Project Number & Title:

2D 108 - *Improving reproductive performance during seasonal infertility: identification of "at-risk" sows and the role of oocyte quality*

Principle Investigator:

Dr Christopher Grupen and Dr Patricia Holyoake-University of Sydney

Background:

Late pregnancy loss is a common syndrome of summer infertility resulting in reduced farrowing rate. The factors that lead to late pregnancy loss during the summer period remain to be clearly established, making it difficult to implement cost effective intervention strategies, particularly as only a proportion of sows and gilts are affected. The project is attempting to establish risk factors associated with late pregnancy loss during summer infertility, and is investigating the effects of season on oocyte quality and the role this might play in summer infertility.

Methodology:

The initial work in the project involved retrospective analyses of the reproductive performance of some 10,122 sows and gilts from three herds known to be affected by farrowing rate declines in summer. The initial evaluation investigated possible links between late pregnancy loss and factors such as parity, weaning to remating interval, lactation length, number weaned and the weight of gilts at first mating.

Key Findings/Conclusions:

The results of the initial study showed that the factors affecting the probability of late pregnancy loss (LPL) in summer varied with the herd involved as did the severity of summer infertility.

Across all three herds the probability of LPL increased with increasing

1. Parity
2. Weaning to remating interval

But declined with increasing litter size weaned.

Further field studies will be conducted this summer (07/08) to investigate specific management practices and their effects on LPL. Other projects are investigating the mechanisms likely to be associated with LPL in summer and potential intervention strategies.

Potential Users of Information: Nutritionists, Producers, Managers

