

1A-108: Reduced labour costs and increasing synchrony and predictability of lactation oestrus

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Aims and Objectives : To determine whether an injection of hCG 1 or 2 days post-partum will induce ovulation and whether this is followed by normal cyclicity during the later lactation period.

Key Findings

Most sows had medium sized follicles at farrowing and injection of hCG at either 24 or 48 hours after farrowing resulted in follicular growth. However, the incidence of hCG-induced ovulation was low at about 26% and unaffected by injection timing. The reason for a lack of ovulation is unknown. However, although speculative, it is possible that the high circulating concentrations of luteinizing hormone (LH) occurring in the immediate post-partum period resulted in a down-regulation of follicular LH receptors, making them unresponsive to an ovulatory LH signal. If true, then the timing of hCG injection becomes even more critical and would possibly need to be administered immediately post-partum.

In addition, none of the hCG responsive sows appeared to exhibit oestrus and ovulate at the expected 21 days after their first post-farrowing, induced ovulation. Minimal boar stimulation may have contributed to the lack of the subsequent and predictable second oestrus and ovulation during late lactation.

Overall, these results indicate that post-partum administration of hCG is not an effective means to stimulate an ovulation and consistent oestrus cyclicity during the later lactation period.

Application to Industry

The data from this Project, together with the results from other studies, indicate that post-partum administration of hCG is not an effective means to consistently stimulate ovulation and subsequent cyclicity in lactating sows.