

Reproductive performance of dairy cows following estrus synchronization treatment with PGF_{2α} and progesterone

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Introduction

Studies have shown that high progesterone levels during the luteal phase preceding first artificial insemination were associated with higher conception rates in dairy cows.

Objectives

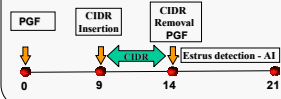
To quantify and compare reproductive performance of dairy cows following estrus synchronization treatment with PGF_{2α} and progesterone (CIDR), with that of untreated control cows.

Methods

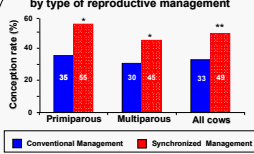
In total, 168 primiparous (PP) and 214 multiparous (MP) high-producing Holstein cows were studied over 6 months. Clusters of cows were formed at 2-week intervals. The cows in each cluster were categorized according to parity and days in milk, into one of two reproductive managements:

- Synchronized Reproductive Management**
Cows (n=202) received two PGF injections given 14 d apart. An intravaginal device containing progesterone (CIDR), which was inserted 9 d after the first PGF inj. for 5 d, was removed when the second PGF inj. was administered. Cows that manifested estrus during the next 7 d were inseminated. Cows not observed in estrus were treated again. In both groups, AI was performed once daily a.m., following estrus.
- Conventional Reproductive Management**
Cows (n=180) were inseminated following the first estrus detected after the end of the VWP.

Schedule of activities on the synchronized management



Conception rates (%) at 1st AI by type of reproductive management



Pregnancy rates (%) at 120 d after calving by type of reproductive management



Conclusion

Estrus synchronization treatment with PGF and progesterone, improved the conception rate at 1st AI, and pregnancy rate at 120 d after calving in high-producing dairy cows.