

Improving repeat breeder cows' fertility by synchronizing ovulation and timed inseminations

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Introduction

The prevalence of cows with 3 AIs out of the total in the Israeli large dairy herds during 2007 was 36% for primiparous (PP) and 43% for multiparous (MP) cows. For cows with 4 or more AIs, the corresponding values were 24% and 30%. On average, the conception rates of the repeat breeder cows were 20-30% lower than conception rates at first AI.

Objectives

The objective of the study was to improve repeat breeder cows' fertility by synchronizing ovulation, followed by two fixed timed consecutive AIs.

Methods

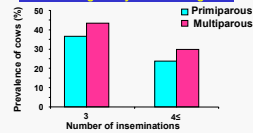
Cows with 3 or more AI were defined as repeat breeder cows. The year-long study was conducted in a large dairy farm. Sixty-four PP and 117 MP cows that were approaching 3 or more AI were randomly assigned to one of two treatment groups according to parity and AI number.

The treatments were:

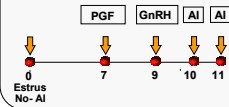
Control-cows (n=93) that returned in estrus were re-inseminated.

Treated-cows (n=88) that returned in estrus were not re-inseminated. Seven days after estrus, cows were treated by PGF injection, followed by GnRH injection 2 d later. Cows were inseminated 24 h and 46 h after GnRH injection.

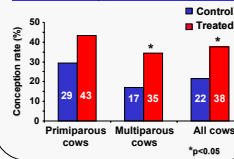
Prevalence (%) of repeat breeder cows in Israeli large dairy herds during 2007



Schedule of activities on the treated group



Conception rates (%) for the control and treated repeat breeders cows



Conclusion

Combined treatment of PGF and GnRH started at a defined day during the estrous cycle, followed by two fixed time inseminations improved the conception rate of repeat breeder cows.