

Evaluation of a reproductive management based on synchronization of estrous cycles in dairy heifers

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Introduction

- Heifers usually receive less managerial attention than cows. In many cases estrus detection is not frequent enough, and many estrous periods are missed.
- We have developed a reproductive management for dairy heifers, based on the synchronization of estrous cycles, which results in efficient estrus detection (ED) and artificial insemination (AI) during a 6 d period (AI week) once every 3 weeks.

Objectives

To quantify and compare reproductive performance of dairy heifers on a synchronized reproductive management, with that of control heifers on a conventional reproductive management.

Conclusions

Synchronized compared with conventional reproductive management can be used in large dairy herds to:

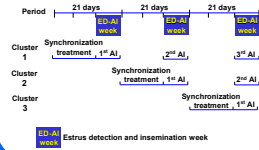
1. Improve reproductive performance of dairy heifers.
2. And/or reduce the amount of labor required for estrus detection and AI.

Methods

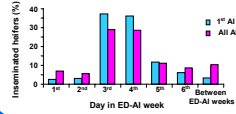
- A total of 468, 13-14 mo. old, Israeli-Holstein heifers, were studied over 3 consecutive years.
- Estrus observation sessions were performed 4X daily.
- AI were performed once daily, a.m., 6 days a week.
- Heifers that returned to estrus after AI were re-inseminated.
- Heifers 2 wk before their 1st planned AI were allotted to clusters at 3 wk intervals. Heifers of each cluster were assigned to 1 of 2 reproductive managements:

1. **Synchronized Reproductive Management**
232 heifers were treated by 2 PG injections, 12 d apart, followed by a 6 d estrus detection and insemination period (ED-AI week). Heifers observed in estrus between AI periods, were inseminated too.
2. **Conventional Reproductive Management**
236 heifers were inseminated based on observed estrus

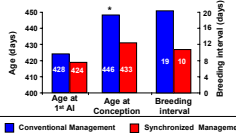
Schedule of activities on the synchronized management



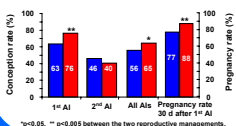
Rate (%) of inseminated heifers on synchronized reproductive management by day of insemination during ED-AI week



Average age at 1st AI, at conception and breeding interval by type of reproductive management



Conception and pregnancy rates (%) by type of reproductive management



*p<0.05, ** p<0.005 between the two reproductive managements.