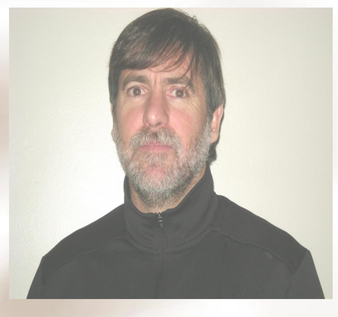
Pregnancy per AI in Holstein heifers inseminated with sexed semen after detected estrus or timed-AI



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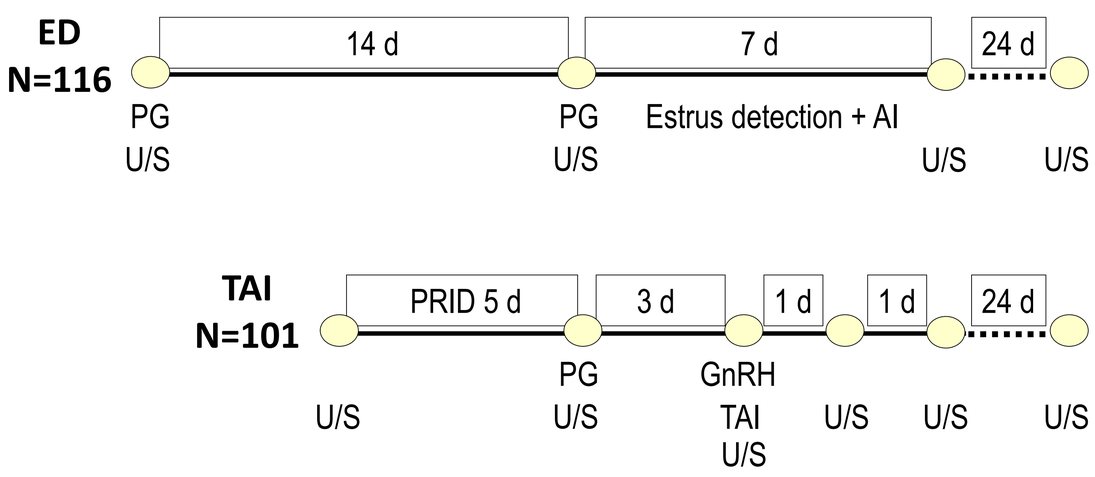
BACKGROUND

- **When sexed semen is used in heifers, artificial insemination (AI) after estrus detection is recommended because timed AI (TAI) protocols have limitations.**
- **Recently, we obtained very encouraging results with a modified 5-day TAI protocol in dairy heifers inseminated with conventional semen.**
- **Therefore, the objective was to compare pregnancy/AI (P/AI) of heifers inseminated with sexed semen after estrus detection (ED) or TAI with the modified 5-day protocol.**

APPROACH

- **Cyclic Holstein heifers, 14 to 16 months of age.**
- **Estrus was detected (3 times/d) for 7 days and AI performed ~12 h after estrus (ED group). The TAI protocol omitted the first GnRH injection but included a PRID device for 5 days (see Fig 1).**
- **Heifers were assigned by treatment to receive either sexed or conventional semen from 4 commercially available sires (Alta Genetics).**

Fig 1. TREATMENT SCHEDULE



GnRH = 100 μg im (Fertiline; Vetoquinol Canada Inc.)
PRID = progesterone releasing intravaginal device (Vetoquinol Canada Inc.)
PG = 500 μg cloprostenol im (Estroplan, Vetoquinol Canada Inc.)
TAI = timed artificial insemination; U/S = ultrasonography

FINDINGS

Fig 2. DISTRIBUTION OF ESTRUS IN ED GROUP

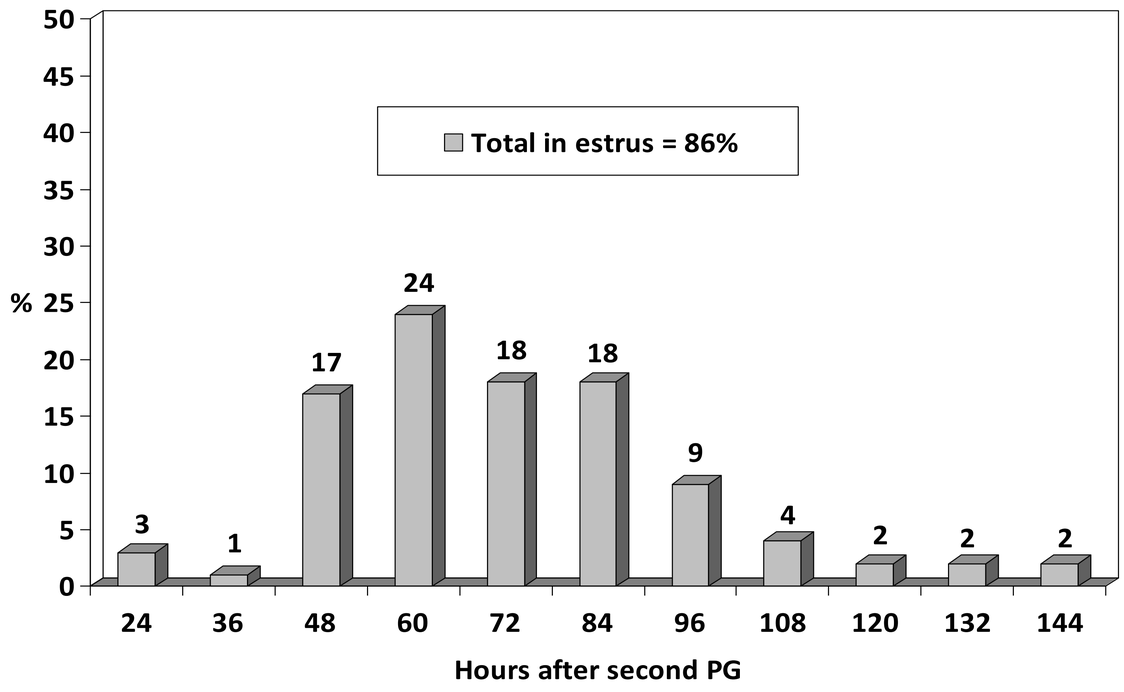
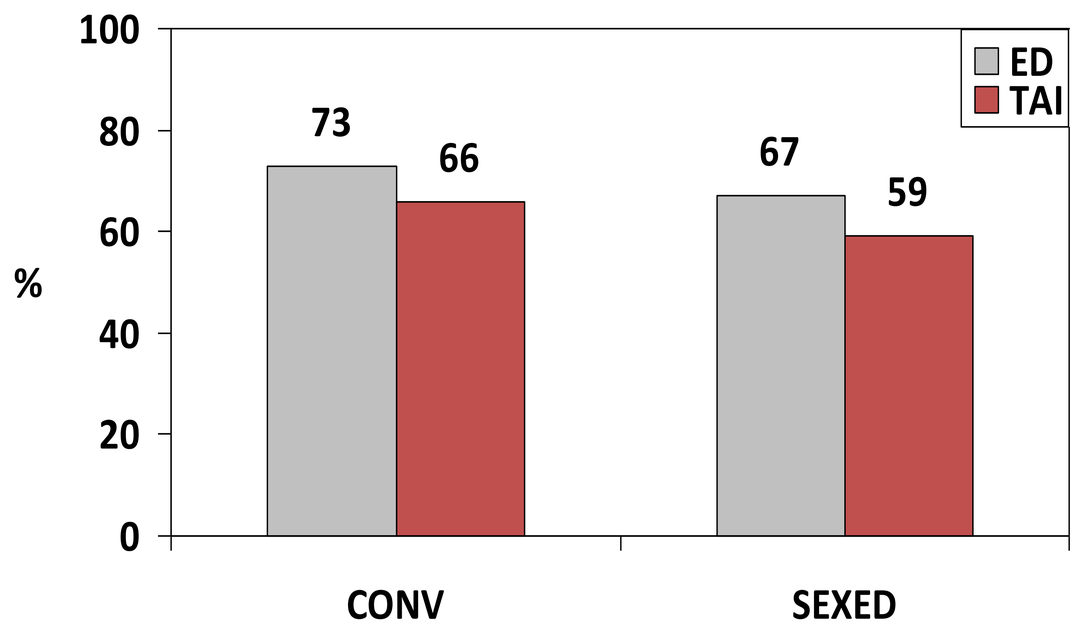


Fig 3. PREGNANCY PER AI



SUMMARY/IMPLICATIONS

- **Pregnancy/AI to sexed semen was 8 to 11% below that of conventional semen.**
- **Although P/AI after detected estrus appeared higher, there were no statistical differences.**
- **The modified 5-day TAI protocol can yield acceptable P/AI with sexed semen in heifers.**

Research supported by Livestock Research Branch, Alberta Agriculture and Rural Development. We thank Alta Genetics and Vetoquinol for their in-kind support and Breevliet Ltd for their cooperation.

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