

for increasing accuracy of estimated breeding values.

Key Words: hoof lesions, repeatability, severity

0372 Sexed-semen usage for Holstein AI in the United States.

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The dairy industry has used sexed-semen to increase the number of heifer calves born on the farm for over a decade. While the efficacy of sexed-semen has been determined experimentally, we sought to tabulate statistics on the generalized use of the technology in the U.S. dairy herd and determine its effectiveness in the field. Sexed-semen breeding status was determined by a National Association of Animal Breeders' 500-series marketing code or by individual breeding information in a cow or heifer reproduction record from a dairy records processing center. Only breedings from 2007 through 2015 with confirmed outcomes (pregnant or not pregnant) were included: 5,963,876 heifer breedings (1,323,721 to sexed semen) and 42,232,502 cow breedings (253,586 to sexed semen). Sexed-semen breedings resulted in 87 and 89% female offspring, for cows and heifers, respectively. This was a notable improvement over conventional Artificial Insemination (AI), which results in 48% female births, on average. Usage of sexed-semen in heifers has increased from 9% in 2007 to 31% in 2015. Furthermore, mean conception rates for heifer sexed-semen breedings has recently increased due to improved technology (42% in 2007 compared with 49% in 2015). Comparable conception rates for heifer conventional breedings were 56, and 59% for 2007, and 2015, respectively. Smaller increases were seen in sexed-semen breedings to cows where 0.2% of all breedings used sexed semen in 2007, and 1% in 2015. Conception rates for sexed-semen breedings to cows were 26% in 2007, and 30% in 2015 compared with 30, and 32% for conventional breedings during the same years, respectively. Usage of sexed-semen for both heifers and cows has increased, with a bigger increase seen in heifers. Mean conception rates for sexed-semen breedings have also increased for both heifers and cows.

Key Words: sexed semen, conception rate, breeding

0373 Effect of semen type (cooled-fresh vs. frozen-thawed) on fertility of lactating dairy cows.

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The objective of this retrospective data analysis was to compare pregnancy per AI (P/AI) in dairy cows inseminated with cooled-fresh semen or frozen-thawed semen. Lactating

Holstein cows from 11 confined dairies in CA were detected in estrus or synchronized with a Ovsynch-like timed AI protocol and received an AI with a single dose of either fresh (15 to 40 x 10⁶ spz/straw) or frozen semen (15 x 10⁶ spz/straw) once/day in the mornings. Both types of semen from multiple service-sires were used within all herds throughout a period of 10 mo (Jan 2015 to October 2015). Transcervical AI procedure was performed regularly with deposition of semen in the body of the uterus with the assistance of an AI applicator. Fresh semen was delivered to all farms on a daily basis and kept at 2° to 7°C until AI, which was performed within 24 h after fresh semen delivery to the farm. Pregnancy diagnosis was performed at 30 to 40 d post AI across all participating herds. The final database comprised 37,281 breeding records with confirmed AI outcomes (Fresh = 18,042 and Frozen 19,239). Statistical analysis was performed with the proc GLIMMIX of SAS (version 9.3), considering main effects and meaningful one-way interactions with service-sire and cow included in the model as random effects. At 30–40 d after AI, P/AI was greater for cows bred with fresh semen compared with frozen-thawed semen [Fresh = 36.6% (6603/18,042) vs. Frozen = 30.8% (5926/19,239); *P* = 0.02]. In addition, the amount of sperm cells in the fresh semen straw did not influence P/AI (*P* > 0.10). Interestingly, there were no significant interactions (*P* > 0.10) between type of semen (fresh vs. frozen) and month-of-AI, herd, cow parity, days in milk at AI, or even AI breeding-code (natural estrus vs. synchronization programs), suggesting that positive effects of fresh semen in relation to frozen semen was independent from the above mentioned variables. We conclude that the use of cooled-fresh semen improved P/AI in lactating dairy cows compared with the standard AI utilizing frozen-thawed semen.

Key Words: fresh semen, dairy cow, fertility

0374 Subclinical ketosis in the oocyte donors of

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In Brazil, the prevalence of subclinical ketosis in F1 *Holstein* × *Gir* oocyte donors has never been assessed in published literature. The aim of this study was to evaluate the prevalence of subclinical ketosis (SK) in F1 *Holstein* × *Gir* embryo donors and the effects of this syndrome on reproductive and economic efficiency. Data was collected from several farms in Minas Gerais, Brazil, from May to August 2015. Twenty-eight lactating F1 *Holstein* × *Gir* cows were used as oocyte donors. The dosage of ketone bodies was performed using the handset Ketovet (Ketovet Brazil, TaiDoc technology, Taiwan). Cows with blood β-hydroxybutyrate (BHBA) above 1.2 mmol/dL in