

### FLOW-SORTING SPERM

- ▶ Proven, repeatable and accurate method resulting in live birth of predicted sex offspring.
- ▶ Separate sperm based on DNA content.



### SEXCEL™

- Gender Ablation Technology
- Stained for DNA content
- Laser destroys unwanted sex



### GENDER SORTED SEMEN

- Several studies have reported up to a 38% reduction in pregnancy rates when using sexed semen

Deutscher et al., 2002; Rhinehart et al., 2011; Meyer et al., 2012

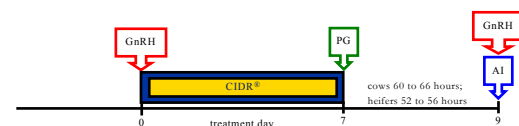


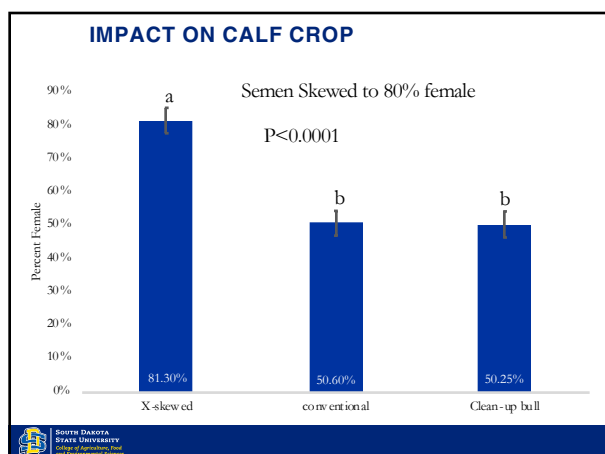
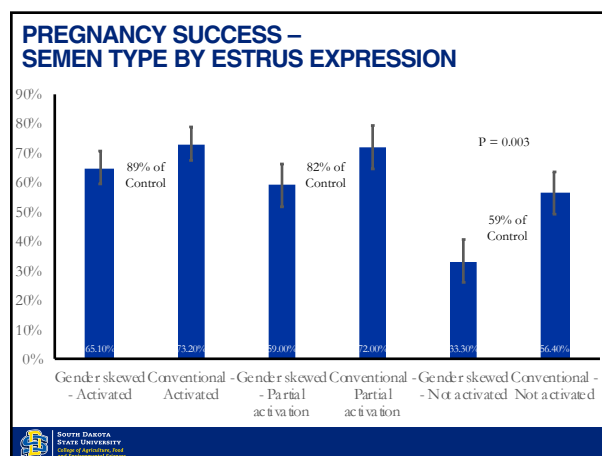
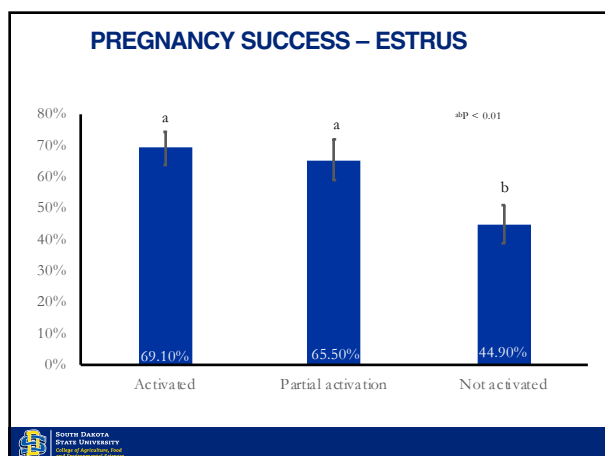
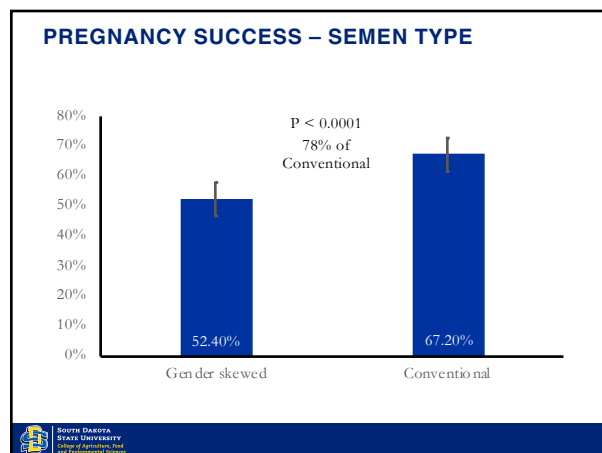
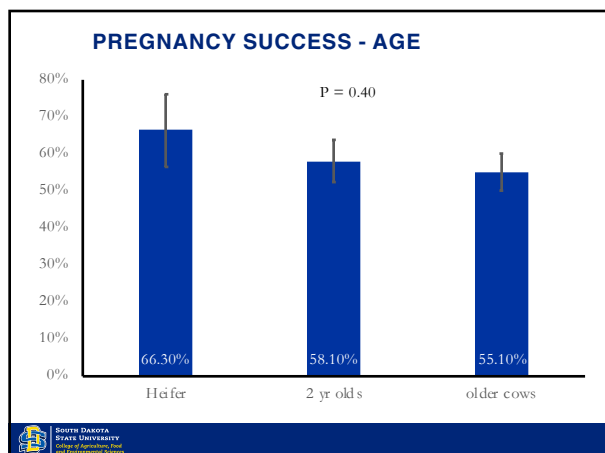
### EXPERIMENTAL DESIGN

- 6 herds
- 878 animals
  - Blocked by age and calving date within each herd
- 2 treatments
  - Sexed and Conventional Semen from the same bulls used within each herd
    - Semen for sexed and conventional was collected between 0 and 8 days apart
  - 5 bulls used
    - 2 Bulls used in each herd with 1 bull common across all herds
- Pregnancy success and fetal age determined after AI, and after the breeding season by transrectal ultrasonography.



### Protocol





### CONCLUSION

- Gender-skewed semen can successfully be used in fixed-time AI protocols among animals that exhibit estrus
- Caution should be used among animals that do not exhibit estrus

### Applied Reproductive Strategies in Beef Cattle

**Seminars** Large group sessions with keynote speakers

- Fundamental concepts in beef cattle reproductive function
- Real-world application of technologies for reproductive management
- Emergence of new technologies
- Environmental factors that influence reproductive success

**Hands-On** Small group field and lab demonstrations

- Chute-side demonstration of management techniques
- Laboratory demonstration of procedures


**Posters** New findings from translational research

- Review results from applied research and educational programs
- One-on-one discussion with the project leaders

**Tradeshow** Allied industry partners

- Discover new products to enhance reproductive management
- Network with industry professionals & troubleshoot issues

August 20<sup>th</sup> & 21<sup>st</sup>, 2019  
Knoxville, TN  
Knoxville Hilton



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