

The economic impact of fixed time AI in our operation

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Introduction

We are a commercial cow-calf operation with a focus on producing high quality replacement females for the Show-Me-Select heifer program and producing high quality grading cattle that will demand a premium on the rail. We have been using AI for 35 years coupled with total performance records.

AI Experiences

- 2 and 3 times a day observation and breeding
- MGA, MGA Prostaglandin
- Limited suckling
- Syncro-mate B
- Early weaning

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Systems Success

- All of these systems have worked.
- When taking into consideration costs, time and results none of these systems have worked remotely as well as fixed time insemination.

Cow Protocol

- Day 0 CIDR insertion plus GnRH
- Day 7 CIDR removal plus PG injection
- 66 hours after PG insemination plus GnRH

Heifer Protocol

- Day 1 CIDR insertion
- Day 14 CIDR removal
- Day 30 PG injection
- 66 hours later insemination plus GnRH

- The number of times the cattle must go through the chute seems to be a major sticking point for a lot of people.

Labor Requirements

- The 3 trips through the chute for cows take a total of 5 minutes per cow. If you multiply this times 2 people, our total labor per cow is 10 minutes.
- The 4 trips through the chute for heifers take a total of 5 minutes 36 seconds per heifer. If you multiply this times 2 people total labor is 11.2 minutes.

Fixed time insemination is a tremendous time saver

- Makes fall AI more feasible because of limited daylight hours.

We no longer heat detect at all!

Top 4 reasons not to check for heat

- Waste of time because its unnecessary.
- Cows coming in early may cause confusion and loss of sleep.
- You're committed and you can't change anything at this point.
- It might cause you to think about it too much and end up doing something stupid.

Costs

	Cows	Heifers
• CIDR	\$9.12	\$9.12
• GnRh	\$4.60	\$2.30
• PG	\$2.33	\$2.33
• Supplies	\$.10	\$.10
• Semen	\$20.00	\$20.00
• Labor	\$1.67	\$1.87
• Total per head	\$36.15	\$35.72

Results

- 60% to 70% on cows
- 55% to 65% on heifers

Semen

- There is a wide variation in conception rates on bulls with fixed-time AI.

Biggest economic benefits

- Stimulative effect.
- First 30 days of the calving season.
- Females have 4 chances to conceive in a 65 day breeding season.
- Has moved pregnancy status from first to third in our reasons to cull.
- Gives more ability to select for performance and other traits.

Retention rates on the first three groups of heifers that we bred AI with fixed time protocols

Year Born	Number breeding seasons	% of animals still in herd	% of AI services resulting in a live calf
2001	8	65%	74%
2002	7	71.5%	75%
2003	6	63%	77%

Access to more females

- Fixed-time AI has given us access to herds of cattle owned by individuals that would never have considered AI if it required twice daily observation.

First year positive economic benefits

- Increased age of calves at weaning averaging 11 days
- Time and animals saved during calving
- Increased weights do to age and genetics

Access to the best genetics

- The access to high quality proven genetics is certainly the biggest positive of all.
- The ability to use one bull over large groups of females is a great benefit.
- Gives you the ability to target our genetics for a specific end product.

Our targets

- We want to produce females that maintain a 365 day calving interval in a low input forage system.
- They must have the genetics to produce calves that will perform in the feedlot and on the rail. The production of high end white table cloth beef is our goal.

Results

	151 steers	74 heifers
• ADG	3.56	3.48
• DM con	5.30	5.40
• % Prime	23%	15%
• % CAB	58%	55.4%
• %BCPR	10%	28%
• % Ch or B	100%	98.6%

Results continue

	151 steers	74 heifers
• YG 1	1.5%	0%
• YG 2	21%	23.2%
• YG 3	68%	74.3%
• YG 4	9.5%	2.5%
• Premium		
• Per head	\$115.24	\$101.59

Problems

- Weather
- Breeding discipline
- Neighbors management practices and bulls

Conclusion

- I think with today's fixed-time insemination protocols and the proven genetics available to cattle, producers through the use of AI your genetic goals can be achieved much faster with less risk than ever before.