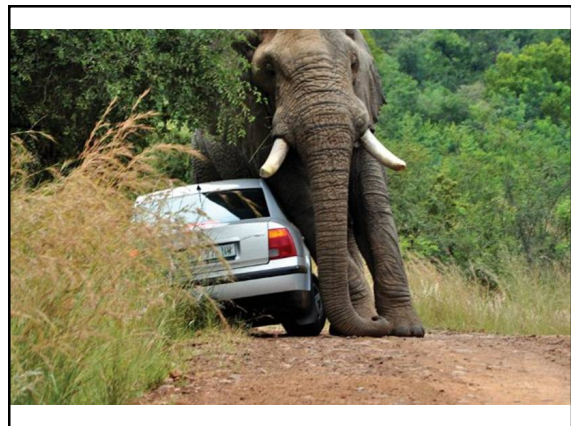
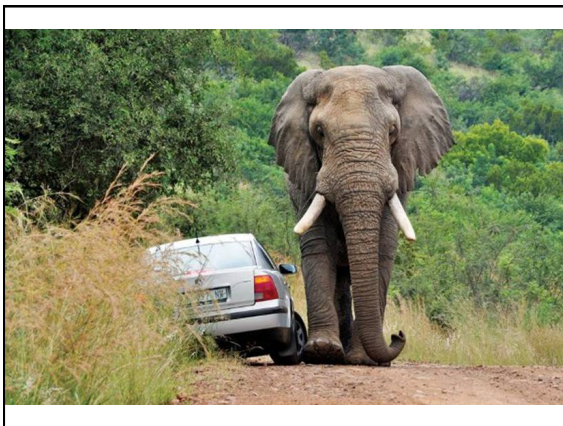


Control of Estrus in Cows

Cliff Lamb
University of Florida





Estrous Synchronization and AI in Beef Cattle

BEEF COW PROTOCOLS - 2012

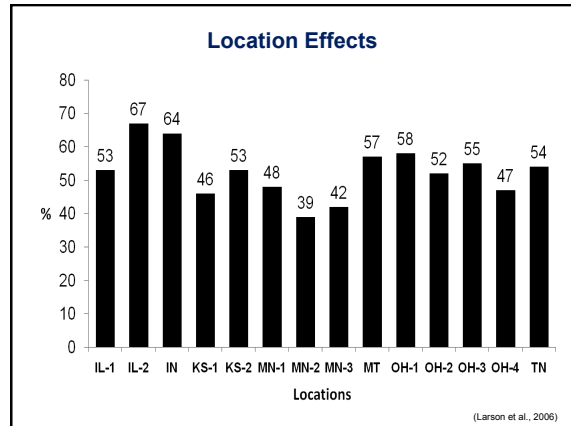
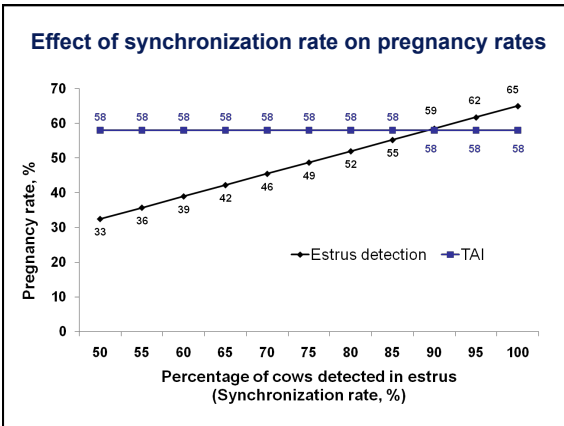
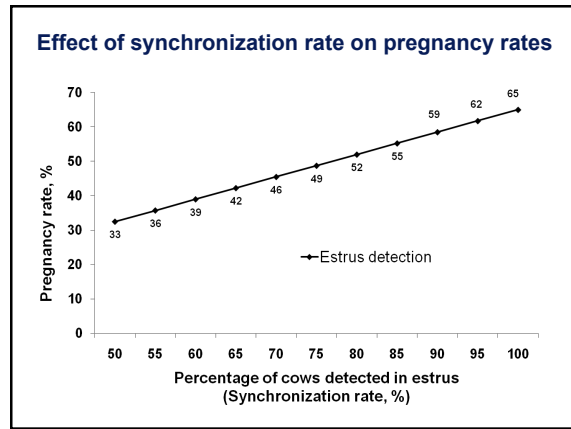
HEAT DETECTION		HEAT DETECT & TIME AI (TAI)	
<p>Select Synch</p>	<p>Select Synch & TAI</p>		
<p>Select Synch + CIDR*</p>	<p>Select Synch + CIDR* & TAI</p>		
<p>PG4-day CIDR*</p>	<p>PG4-day CIDR* & TAI</p>		
<p>FIXED-TIME AI (TAI)*</p>		<p>5-day CO-Synch + CIDR*</p>	<p>5-day CO-Synch + CIDR* & TAI</p>

Definitions

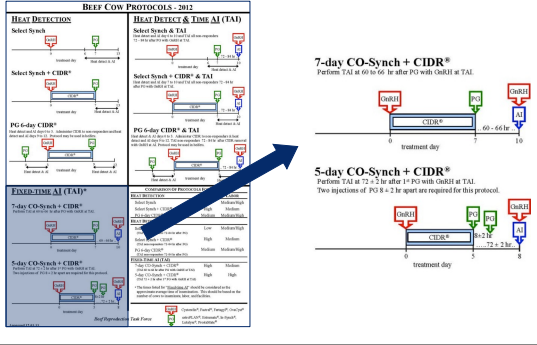
Synchronization Rate:
% of females detected in estrus compared to total number synchronized.

Conception Rate:
% of females pregnant compared to number of females inseminated.

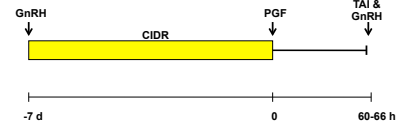
Pregnancy Rate:
% of females pregnant compared to total number synchronized.



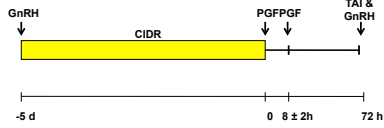
Focus on Fixed-Time AI (TAI) in Cows



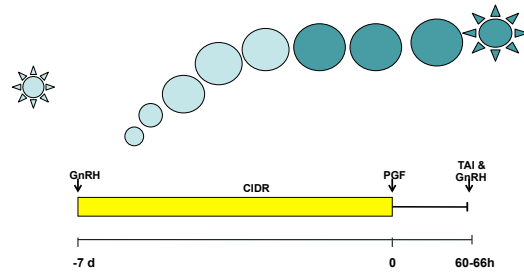
7-day CO-Synch + CIDR



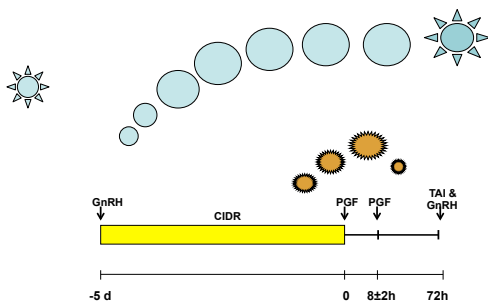
5-day CO-Synch + CIDR



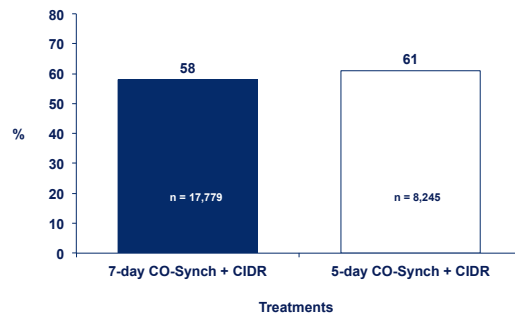
7-day CO-Synch + CIDR



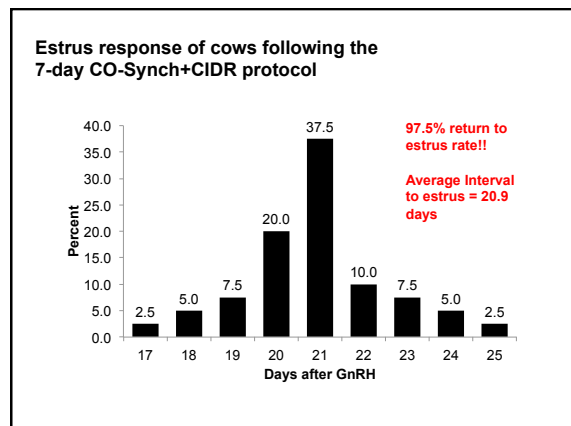
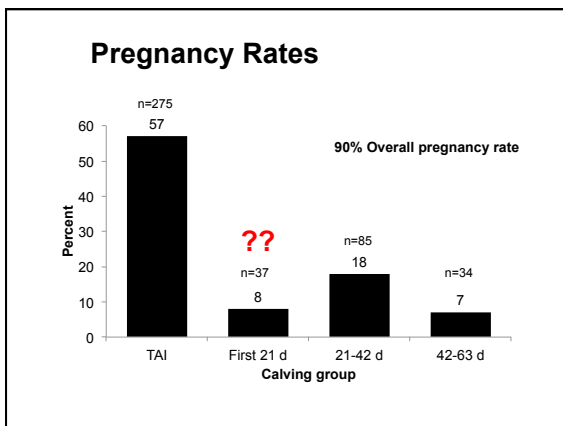
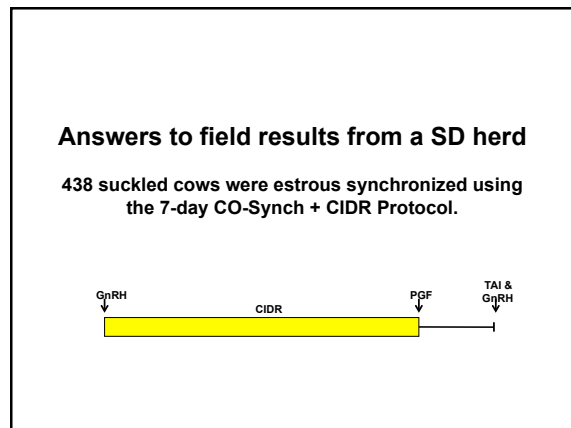
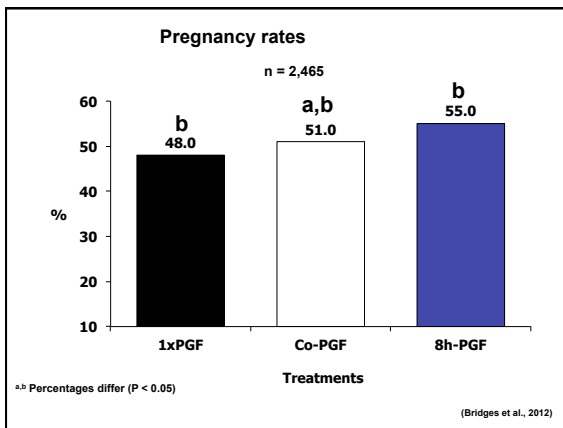
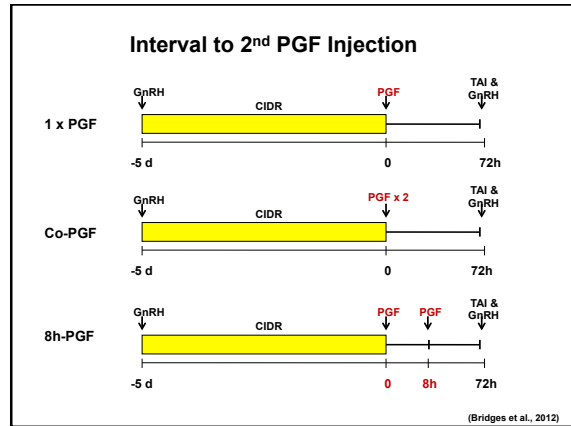
5-day CO-Synch + CIDR

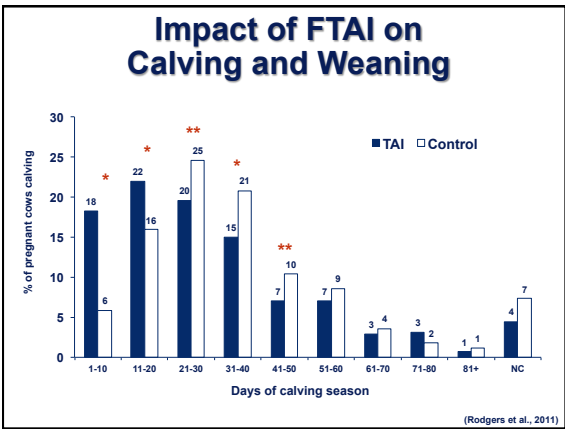
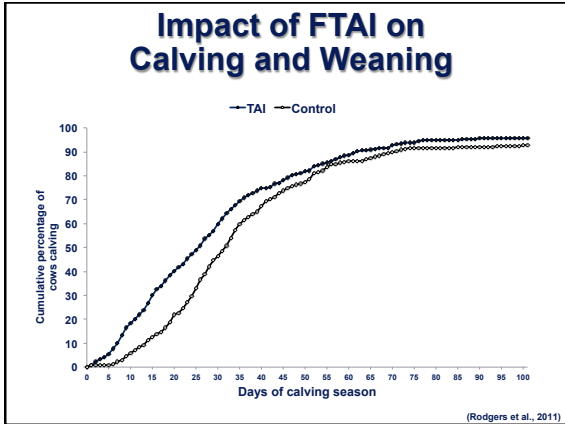
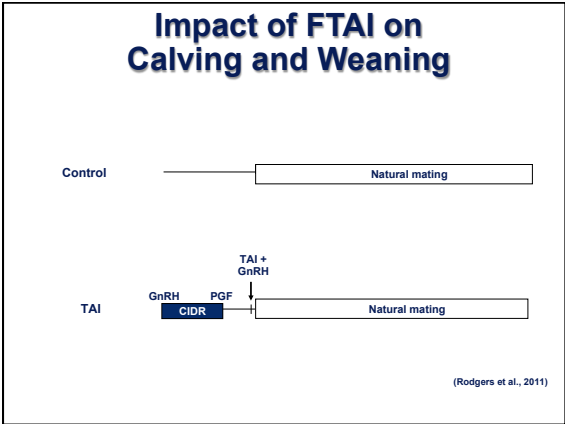


Pregnancy rates



Are 2 Injections of PGF Necessary in the 5-day CO-Synch + CIDR Protocol?



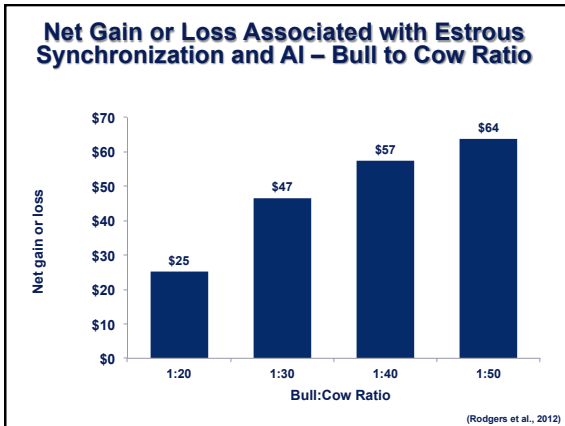
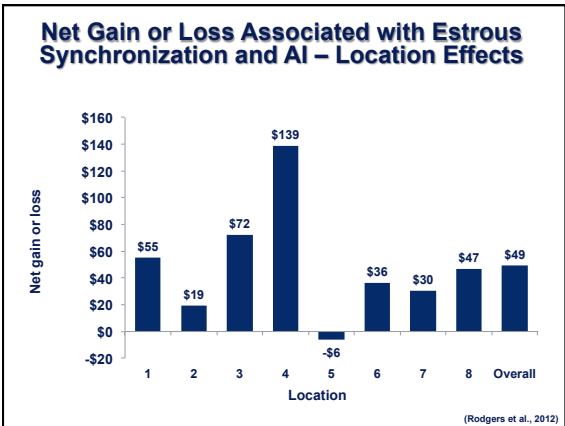


Impact of Fixed-Time AI on Calving and Weaning

Item	Treatment	
	Control	TAI
No. of cows	615	582
Weaning rate, %	78	84
Weaning weight, lb	387 ± 8 ^a	38 lbs 425 ± 8 ^b

^{a,b} Means within row differ (P < 0.01)

(Rodgers et al., 2011)



Model Assumptions

- Bull price \$3,250
- Salvage bull price \$75/cwt.
- Bull grazing, feed, maintenance \$365/year
- Interest 7%
- Steer calf selling price 550 lb \$121/cwt.
- Semen \$13.00
- Reduction in bull/cow ratio 1/17 to 1/34

Summary of Outputs

Increased returns	\$47.09
Decreased Costs	\$35.23
Decreased Returns	\$ 0.00
Increased Costs	<u>\$33.18</u>
Gain	\$49.14

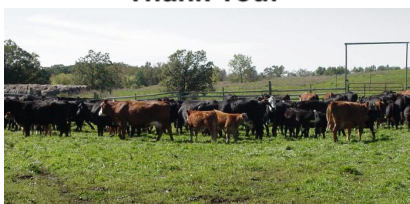
Change in value based on herd sire costs

Item	Bull Value		
	\$2,500	\$3,500	\$4,500
Increased returns (increased value of AI calves)	\$58.33	\$58.33	\$58.33
Decreased costs (decreased costs of clean-up bulls)	\$29.55	\$39.29	\$49.04
Decreased returns (Attributed to fewer clean-up bulls included in decreased costs calculation)	\$0.00	\$0.00	\$0.00
Increased costs (additional labor, semen, AI supplies, etc.)	\$46.10	\$46.10	\$46.10
Gain per cow exposed to AI	\$41.78	\$51.52	\$61.27

Acknowledgements

People	Funding and Product Support
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Mr. Vitor Mercadante	Univ. of MN
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Support staff	USDA-TSTAR
Collaborators	
Co-authors	
Beef cattle producers	

Thank You!



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