



# Using Resynchronization Programs

WITH ESTRUS DETECTION &  
ECONOMIC EVALUATION

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DAIRIES



# Resynchronization Programs with Estrus Detection Achieving High Fertility Through Multiple Programs

Reproduction programs of award winners at Dairy Cattle  
Reproduction Council

Award Level	100% HD	HD/TAI	100% TAI
Platinum (2009–2011)	1	10	1
Gold	0	6	0
Silver	1	3	0
Bronze	0	2	0
<b>Total</b>	<b>2</b>	<b>21</b>	<b>1</b>

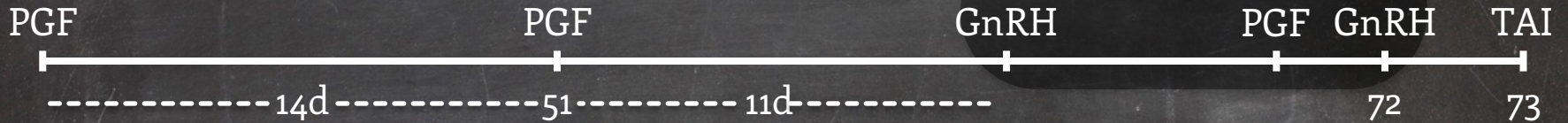
Platinum award winners from 2009-2011  
ranged in pregnancy rate **29-40%**!





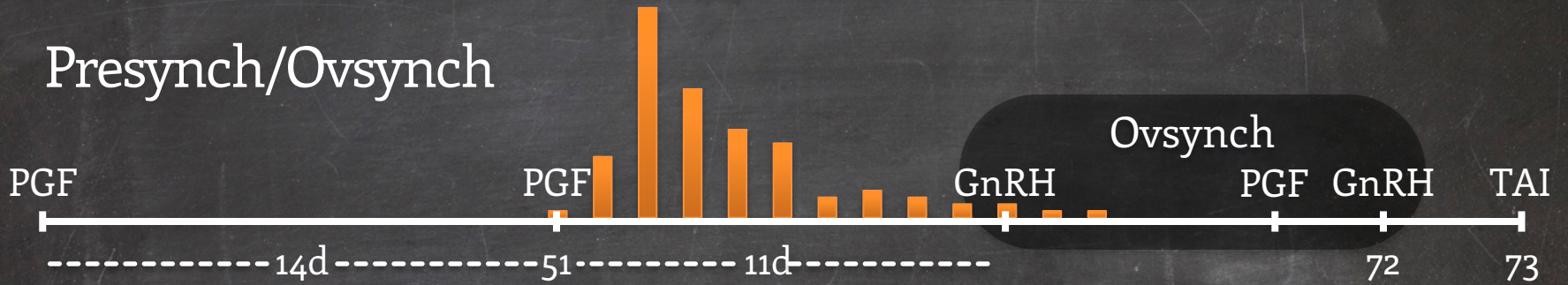
# Resynchronization Programs with Estrus Detection Presynchronization Protocols

## Presynch/Ovsynch



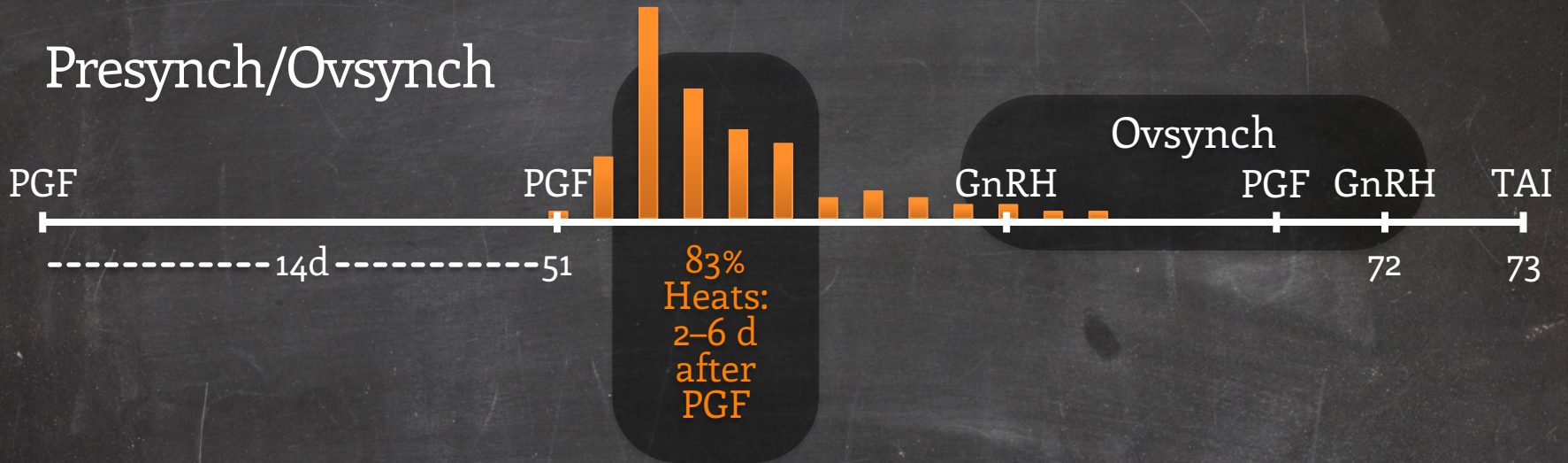


# Resynchronization Programs with Estrus Detection Presynchronization Protocols



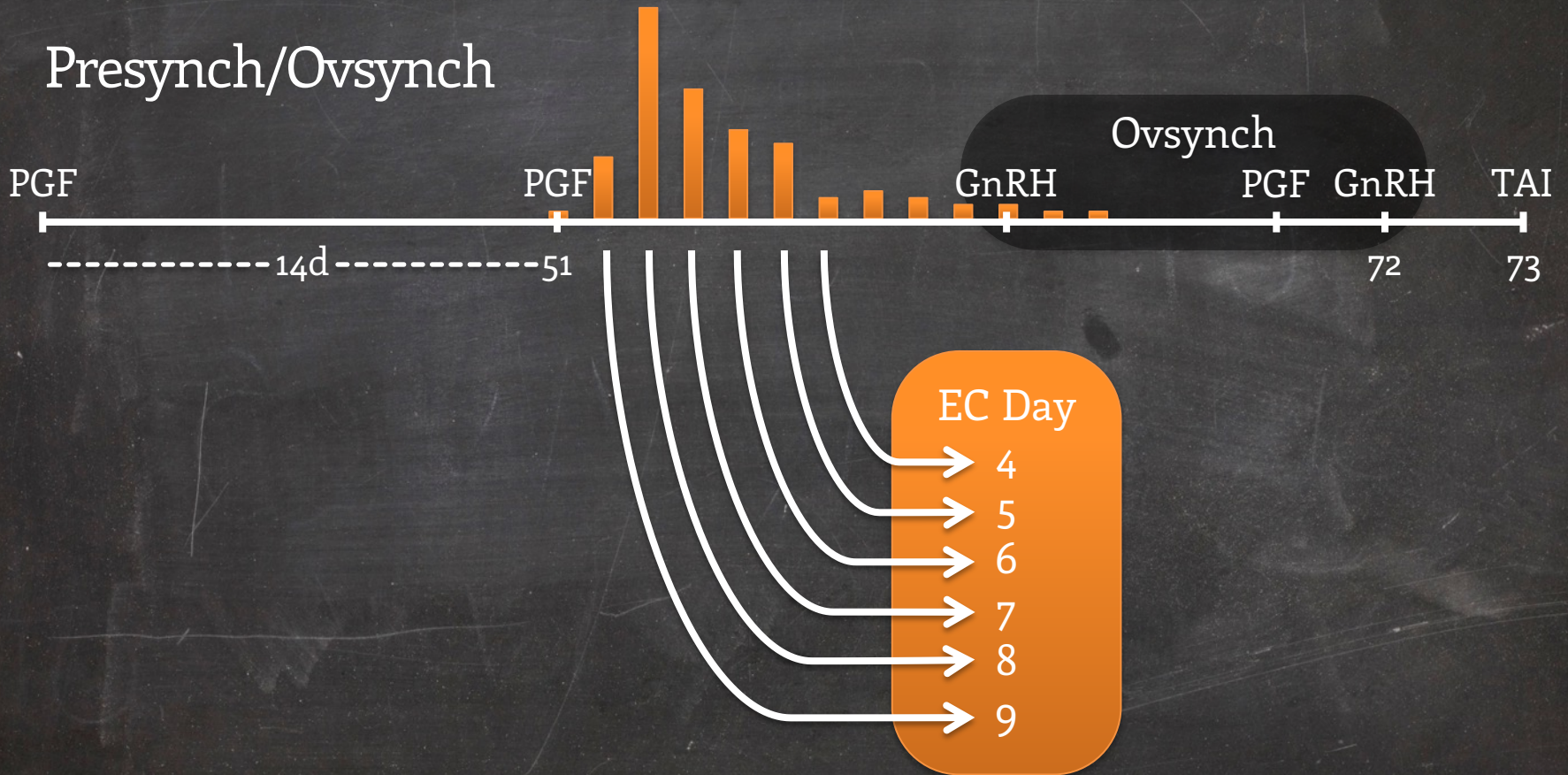


# Resynchronization Programs with Estrus Detection Presynchronization Protocols





# Resynchronization Programs with Estrus Detection Presynchronization Protocols





# Resynchronization Programs with Estrus Detection Presynchronization Protocols

## Double Ovsynch





# Resynchronization Programs with Estrus Detection Presynchronization Protocols

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# Resynchronization Programs with Estrus Detection Presynchronization Protocols

## Double Ovsynch





# Resynchronization Programs with Estrus Detection Presynchronization Protocols

## Double Ovsynch

G6G



EC Day  
6



# Resynchronization Programs with Estrus Detection Presynchronization Protocols

## Double Ovsynch

G6G



Presynch increases fertility 5-7% units

EC Day 6



# Resynchronization Programs with Estrus Detection

## Resynchronization

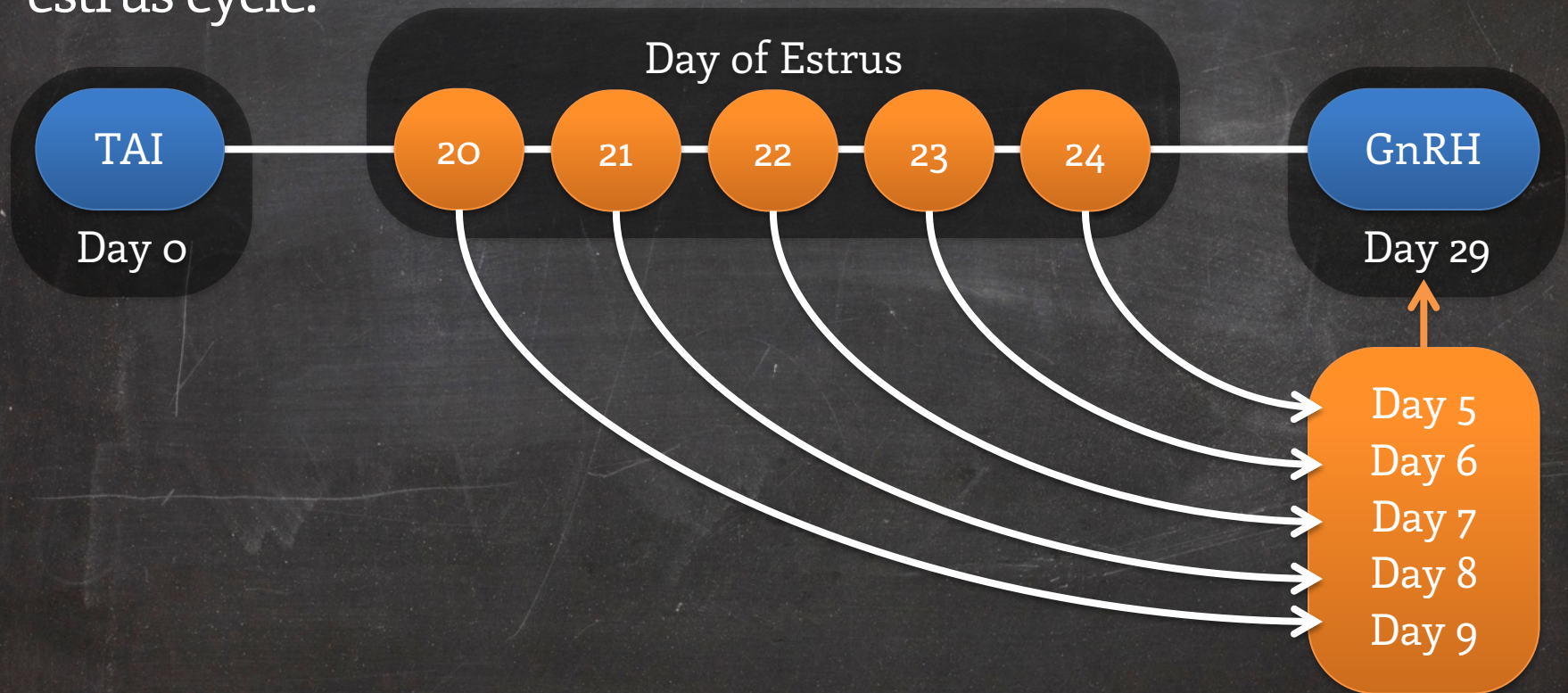
What role does estrus detection play in resynchronization of dairy cows?



# Resynchronization Programs with Estrus Detection

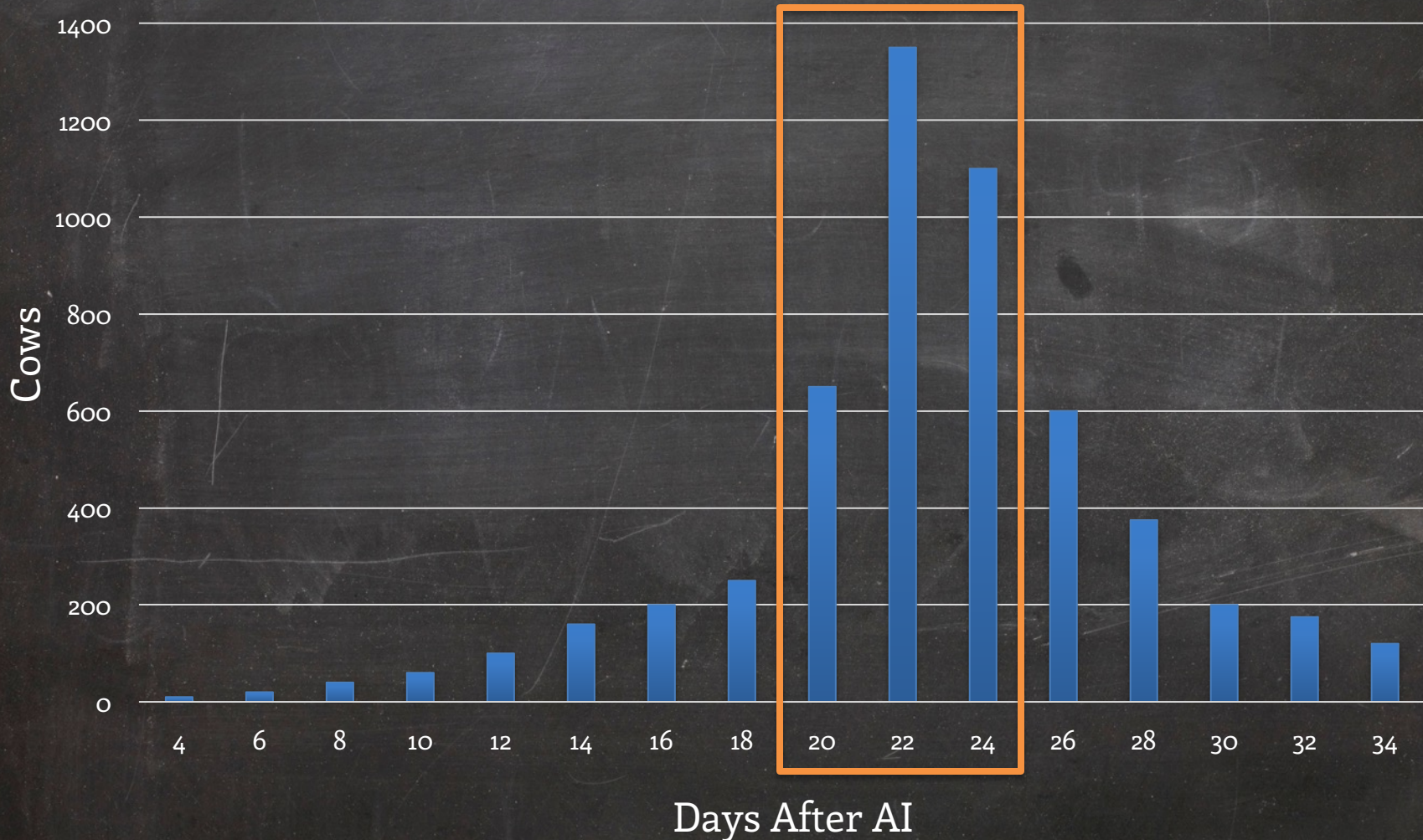
## Timing of Initiation of Resynch

Timing of initiation of resynch according to the phase of the estrus cycle.



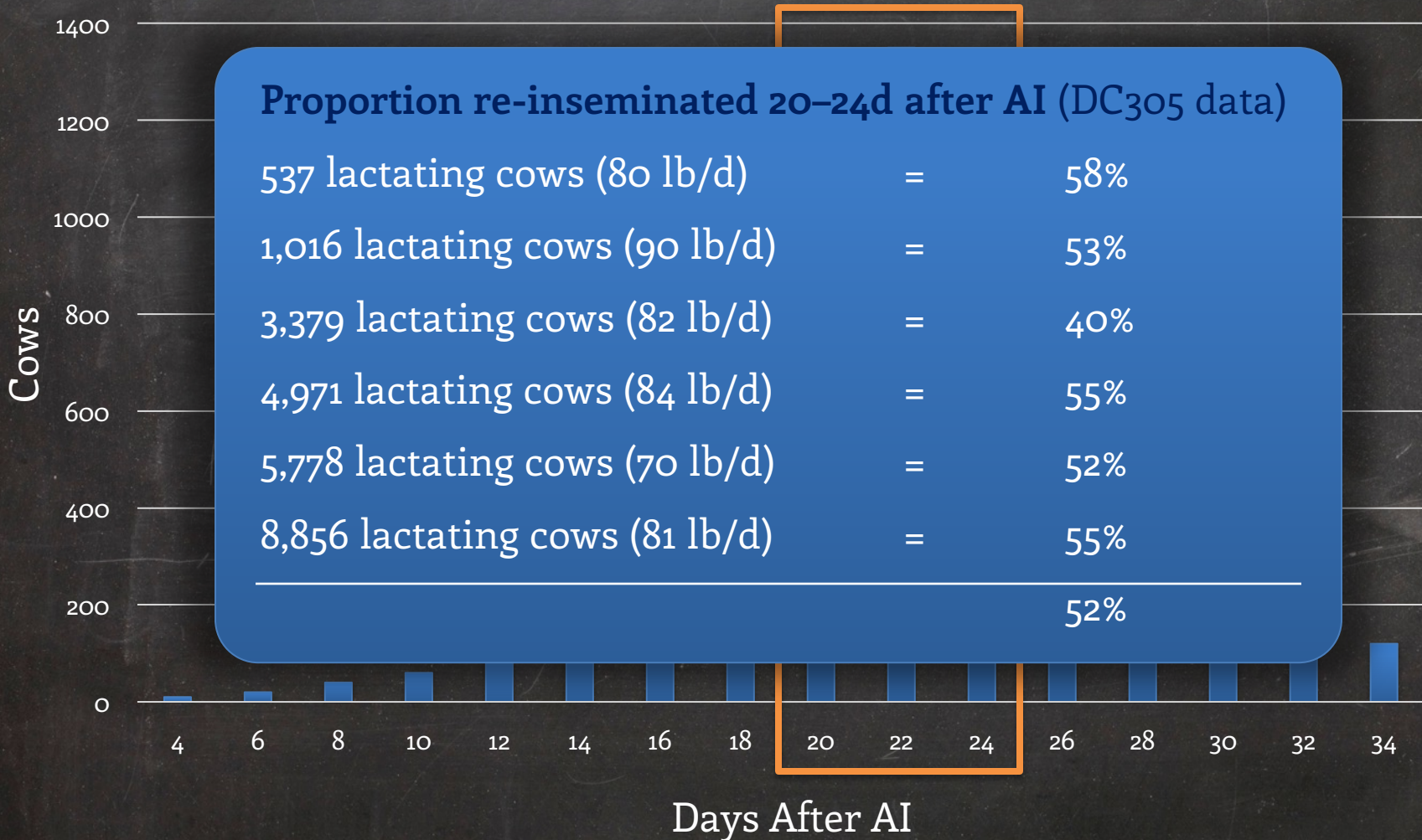


# Resynchronization Programs with Estrus Detection Pattern of Return to Estrus of Lactating Dairy Cows



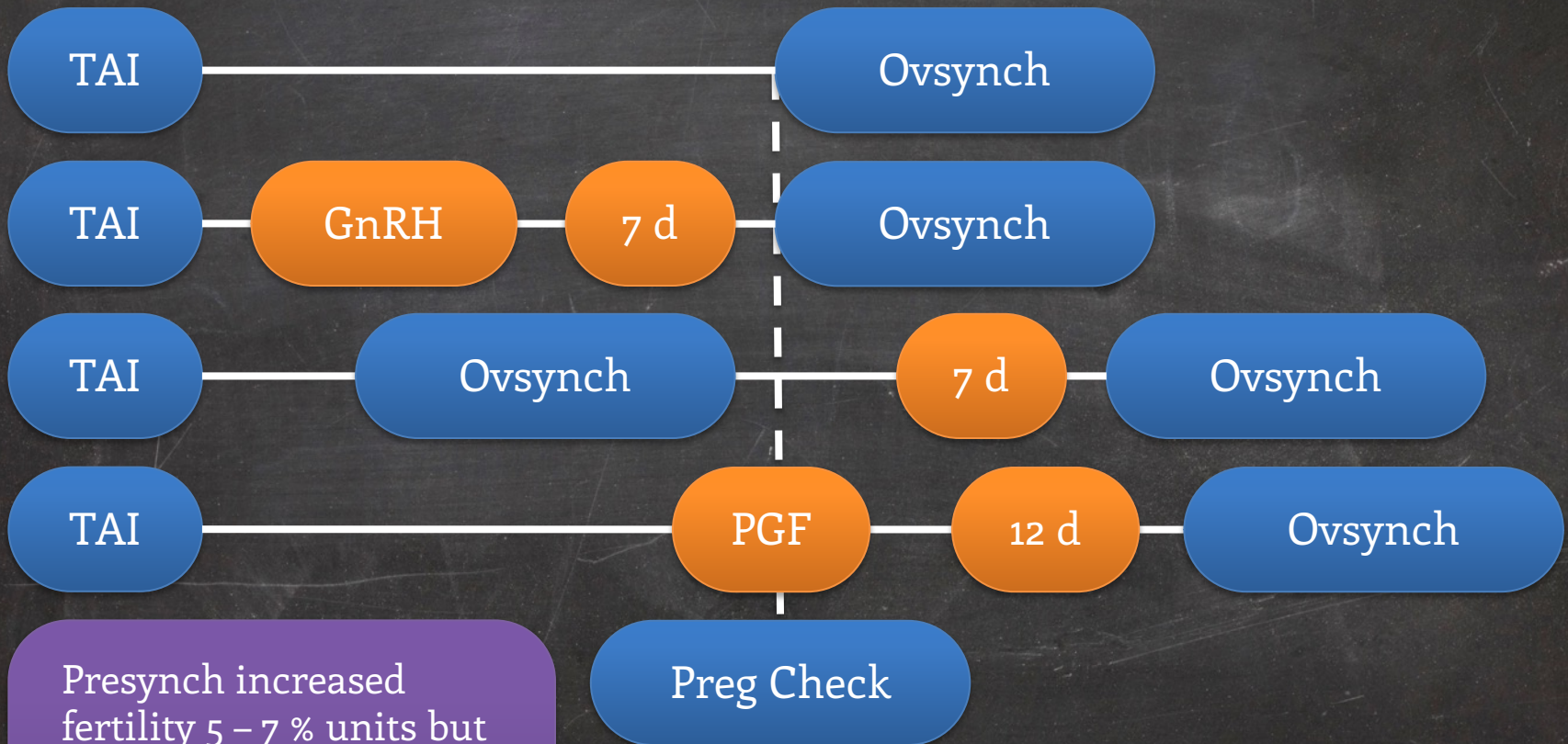


# Resynchronization Programs with Estrus Detection Pattern of Return to Estrus of Lactating Dairy Cows





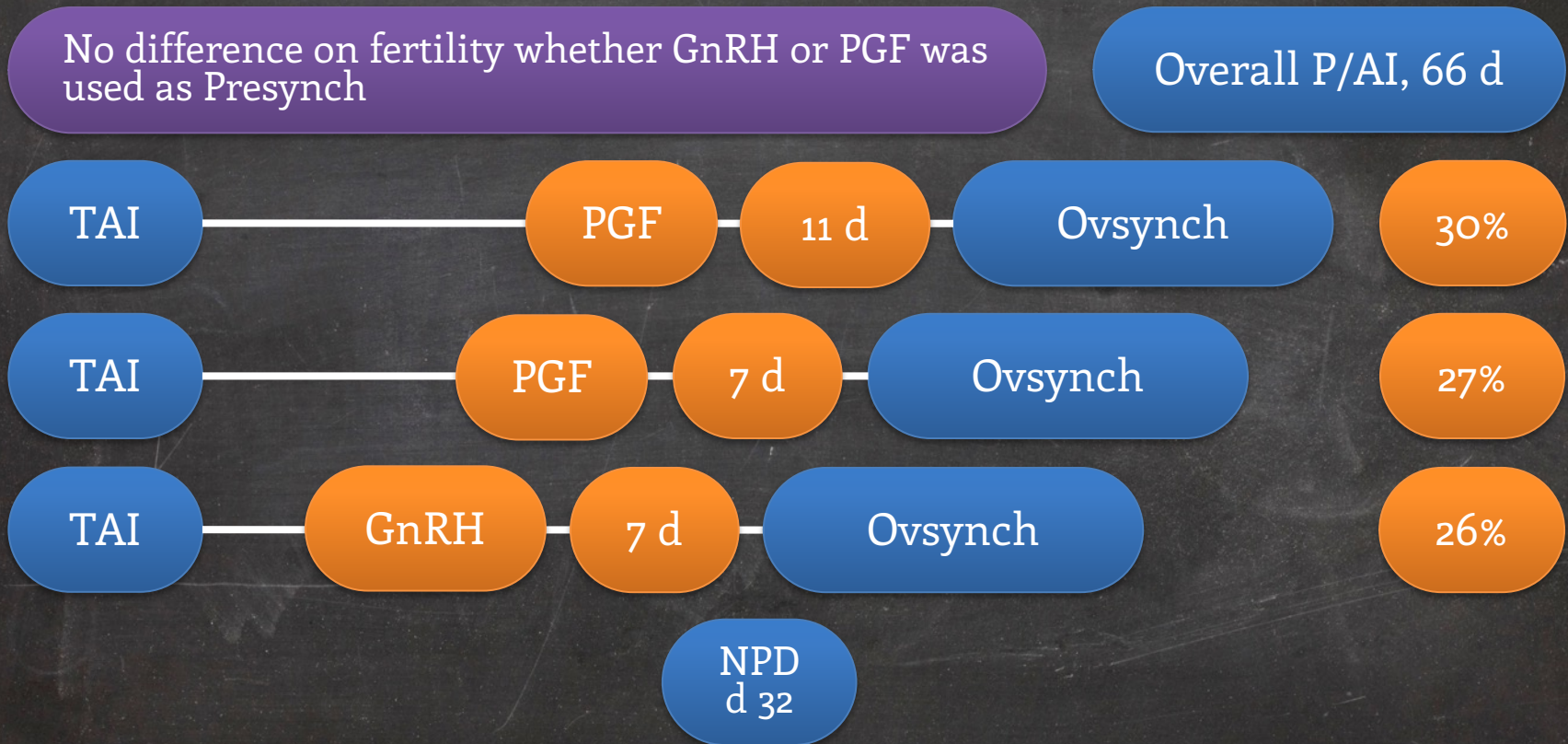
# Resynchronization Programs with Estrus Detection Different Presynch Protocols Before Resynch



Presynch increased fertility 5 – 7 % units but some programs increase the inter AI breeding interval 7 – 13 d

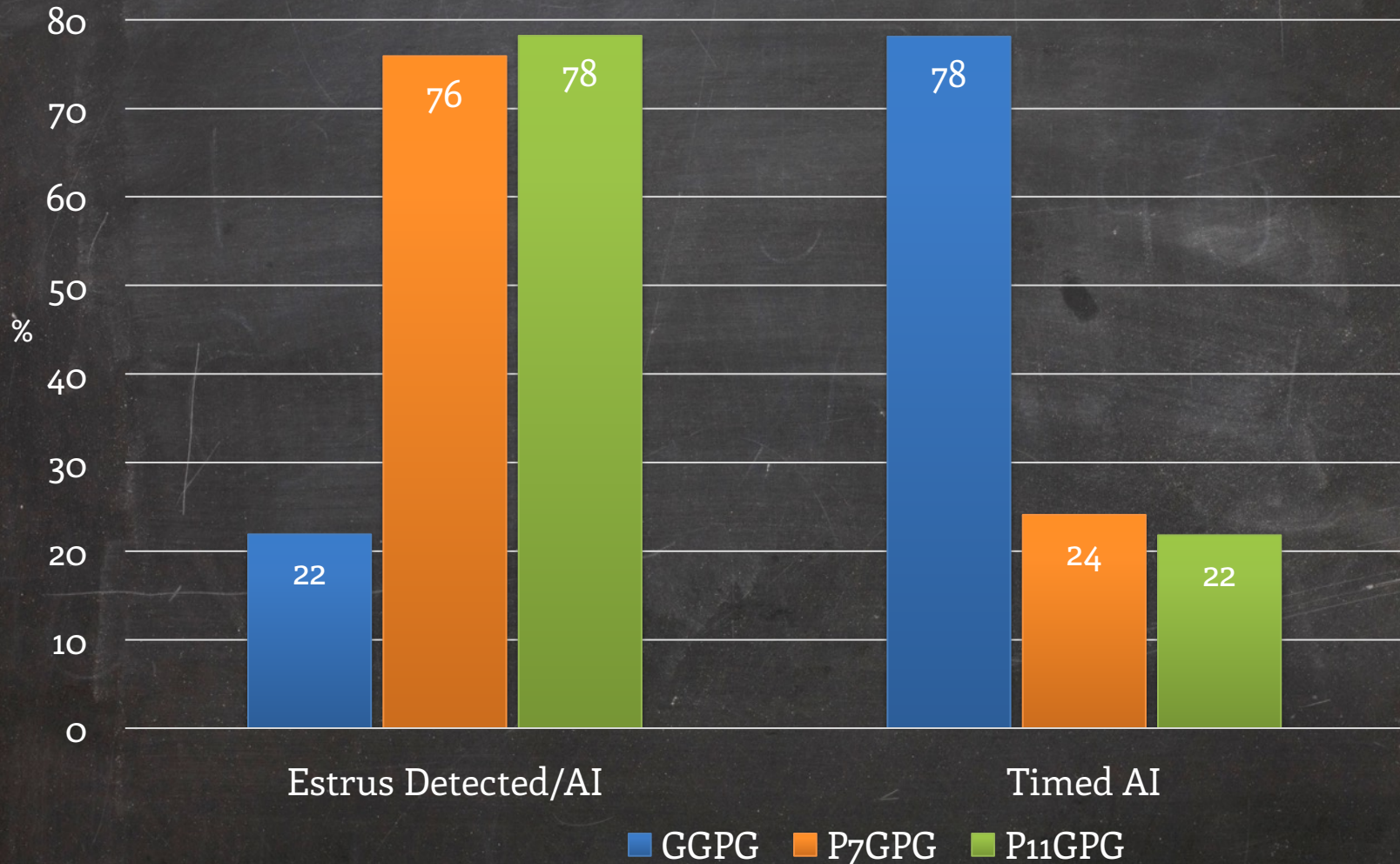


# Resynchronization Programs with Estrus Detection Fertility with GnRH and PGF



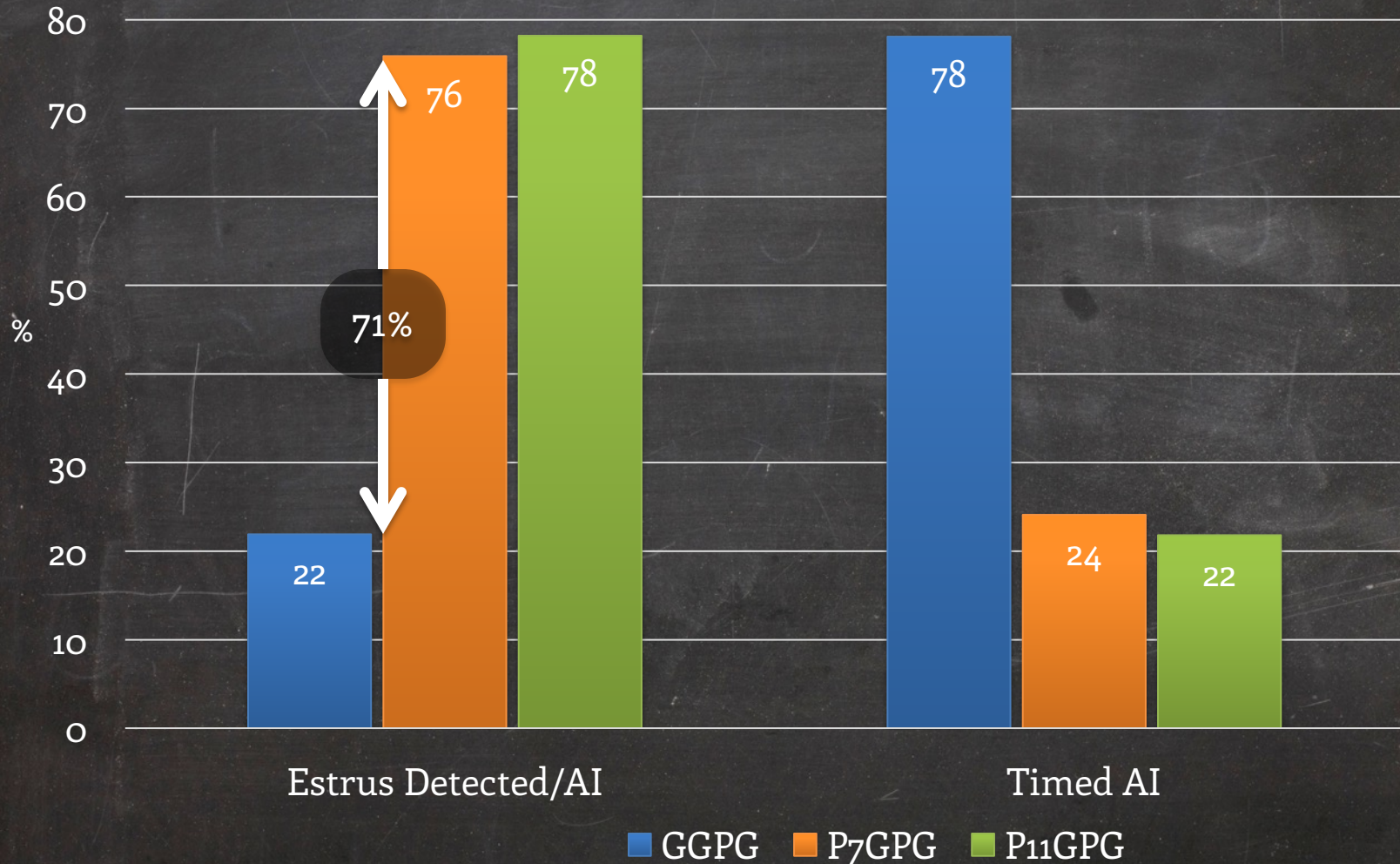


# Resynchronization Programs with Estrus Detection GnRH Reduced Number of Cows Detected in Estrus



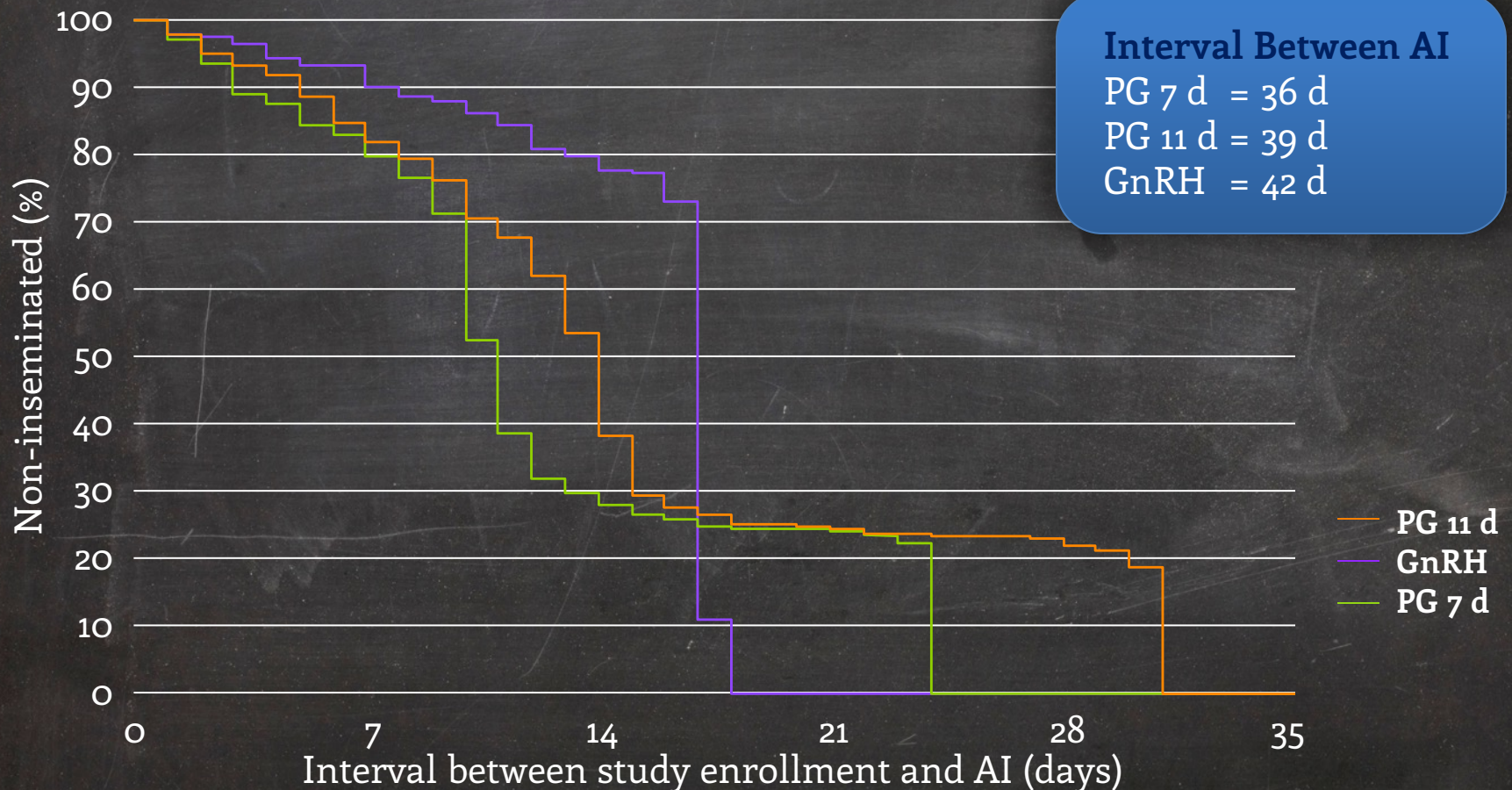


# Resynchronization Programs with Estrus Detection GnRH Reduced Number of Cows Detected in Estrus



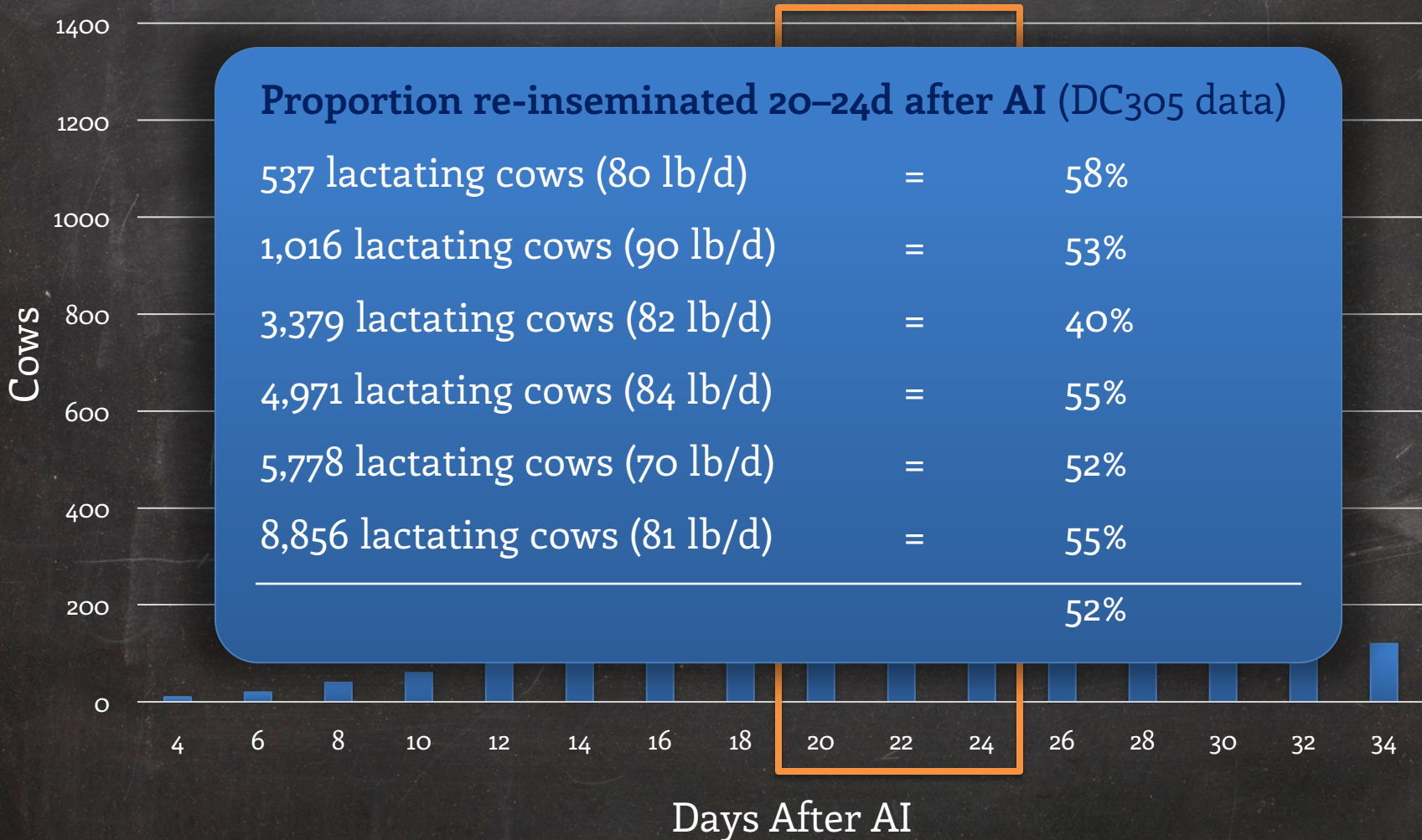


# Resynchronization Programs with Estrus Detection Intervals Between AI With PGF



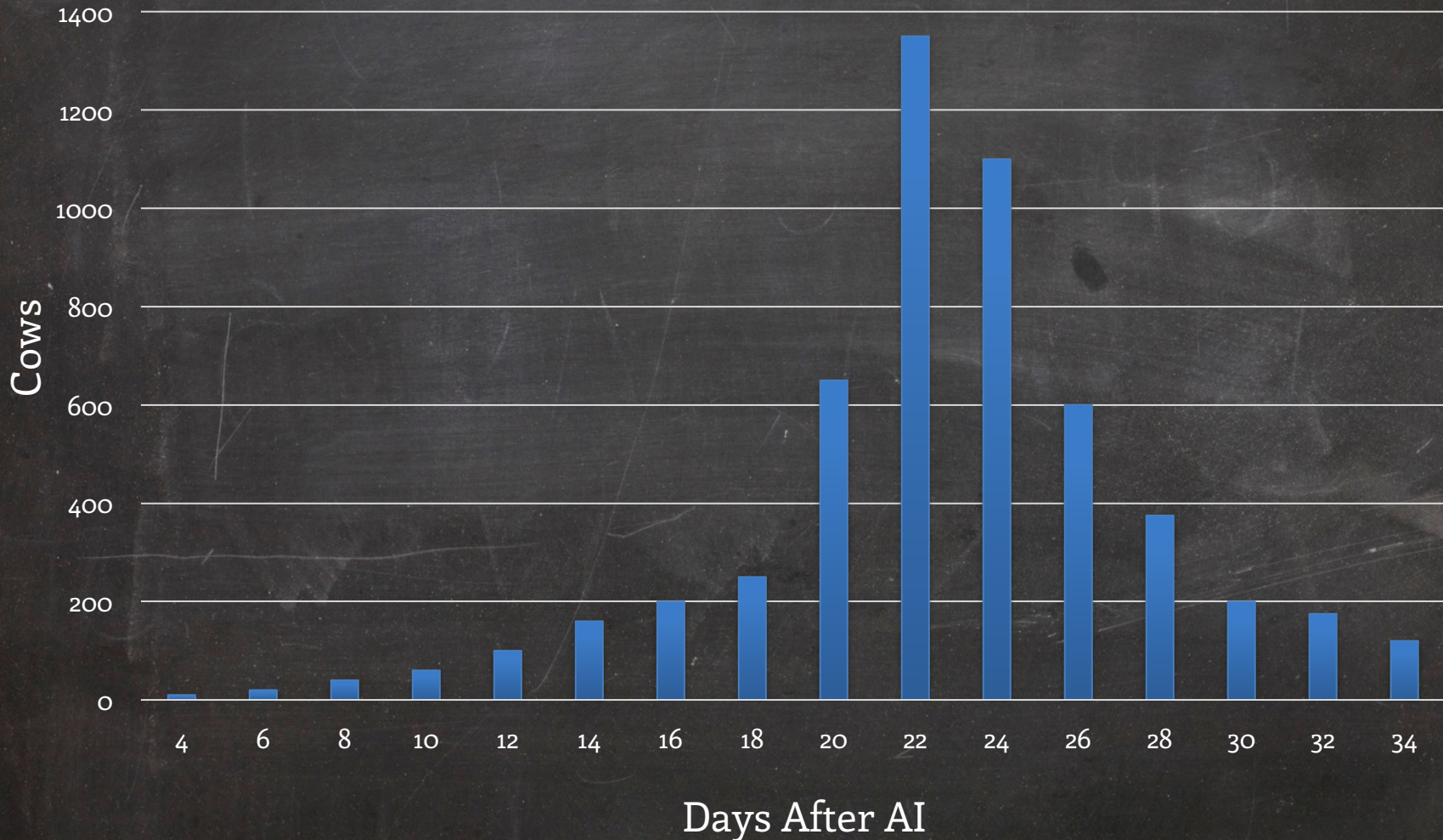


# Resynchronization Programs with Estrus Detection Pattern of Return to Estrus of Lactating Dairy Cows



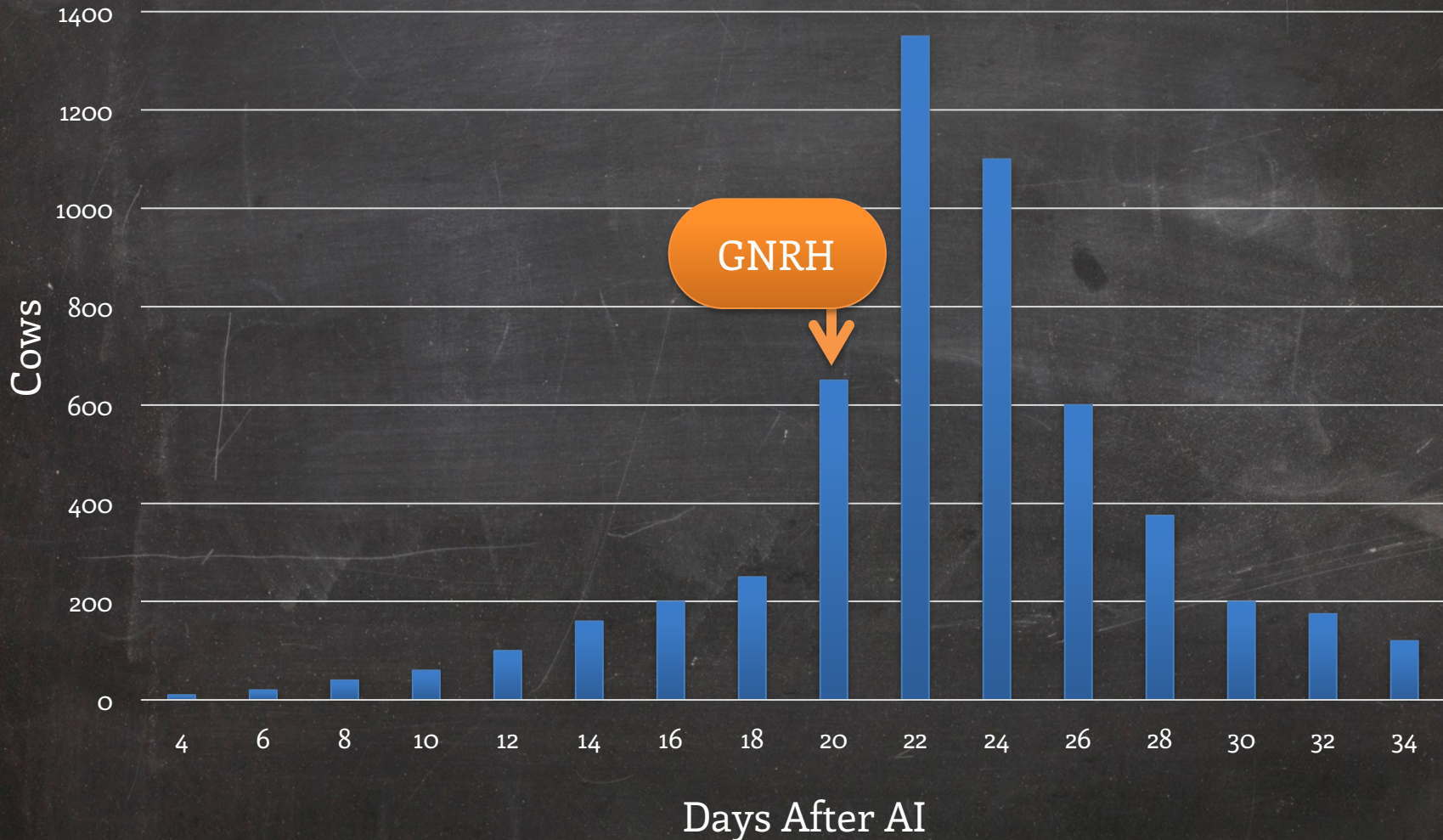


# Resynchronization Programs with Estrus Detection Pattern of Return to Estrus of Lactating Dairy Cows



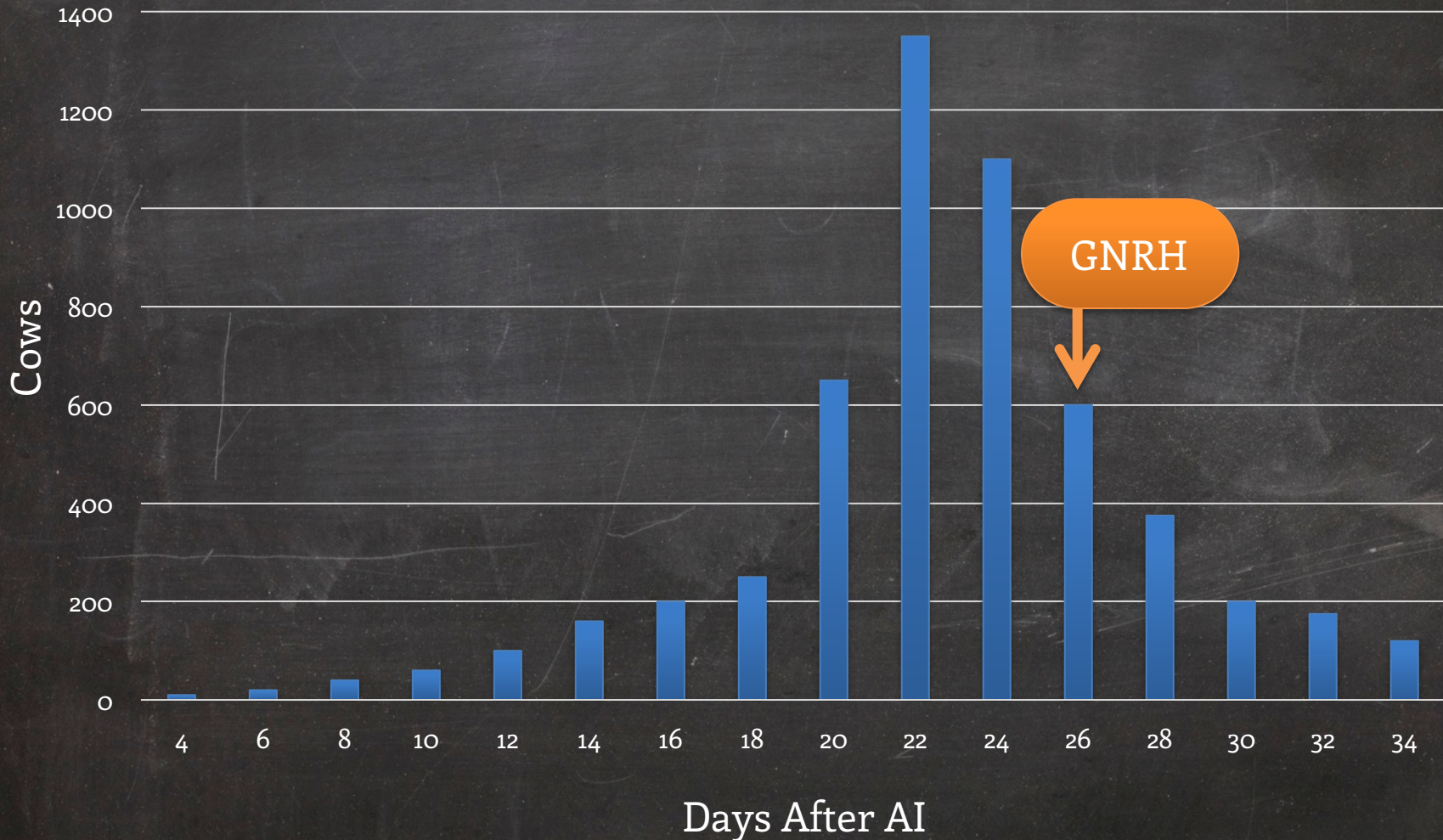


# Resynchronization Programs with Estrus Detection Pattern of Return to Estrus of Lactating Dairy Cows





# Resynchronization Programs with Estrus Detection Pattern of Return to Estrus of Lactating Dairy Cows





## Resynchronization Programs with Estrus Detection Simulation of 10 Reproductive Programs

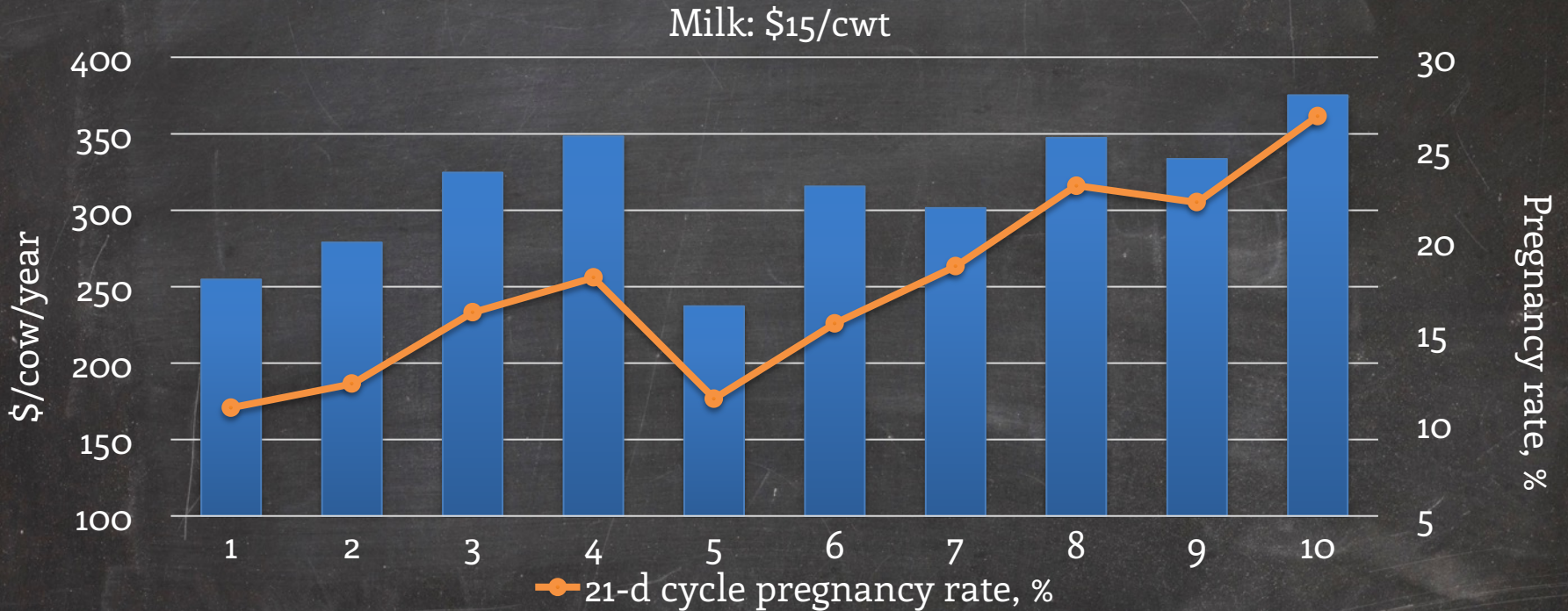
Estimate the impact of reproductive programs on the net return per cow per year (\$/cow/year). Two milk prices were evaluated:

RP	RP	Compliance to TAI	ED	ED Accuracy
1	ED	—	40	85
2	ED	—	40	95
3	ED	—	60	85
4	ED	—	60	95
5	TAI	85	—	—
6	TAI	95	—	—
7	TAI/ED	85	40	85
8	TAI/ED	95	40	85
9	TAI/ED	85	60	85
10	TAI/ED	95	60	—



# Resynchronization Programs with Estrus Detection

## Impact of Reproductive Program on Pregnancy Rate and Return per Cow per Year



Characteristics of the Reproductive Programs

	1	2	3	4	5	6	7	8	9	10
Compliance TAI	---	---	---	---	85	95	85	95	85	95
ED	40	40	60	60	---	---	40	40	60	60
ED accuracy	85	95	85	95	---	---	85	95	85	95

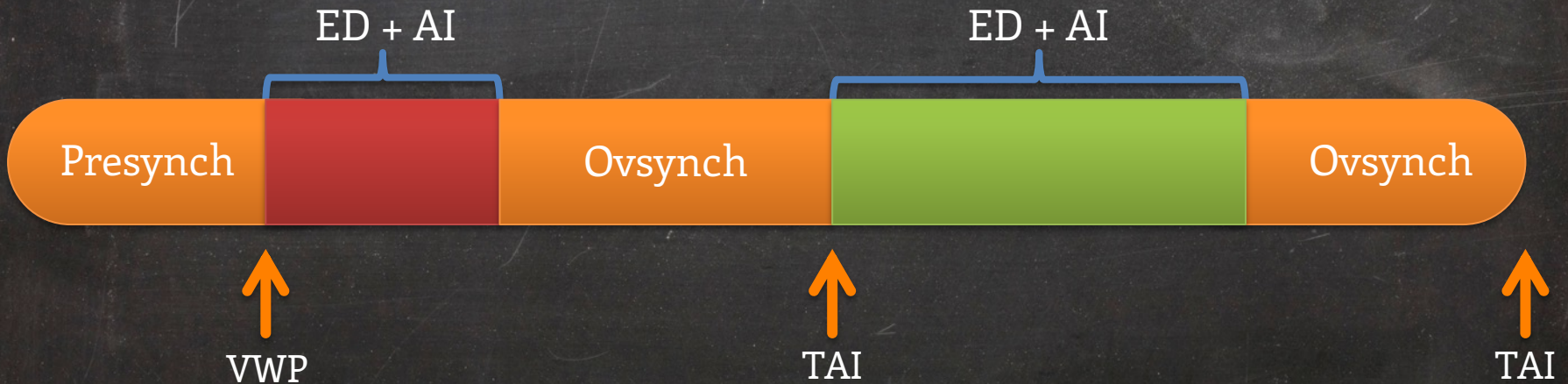


# Resynchronization Programs with Estrus Detection Reproductive Programs Compared

## A. 100% TAI

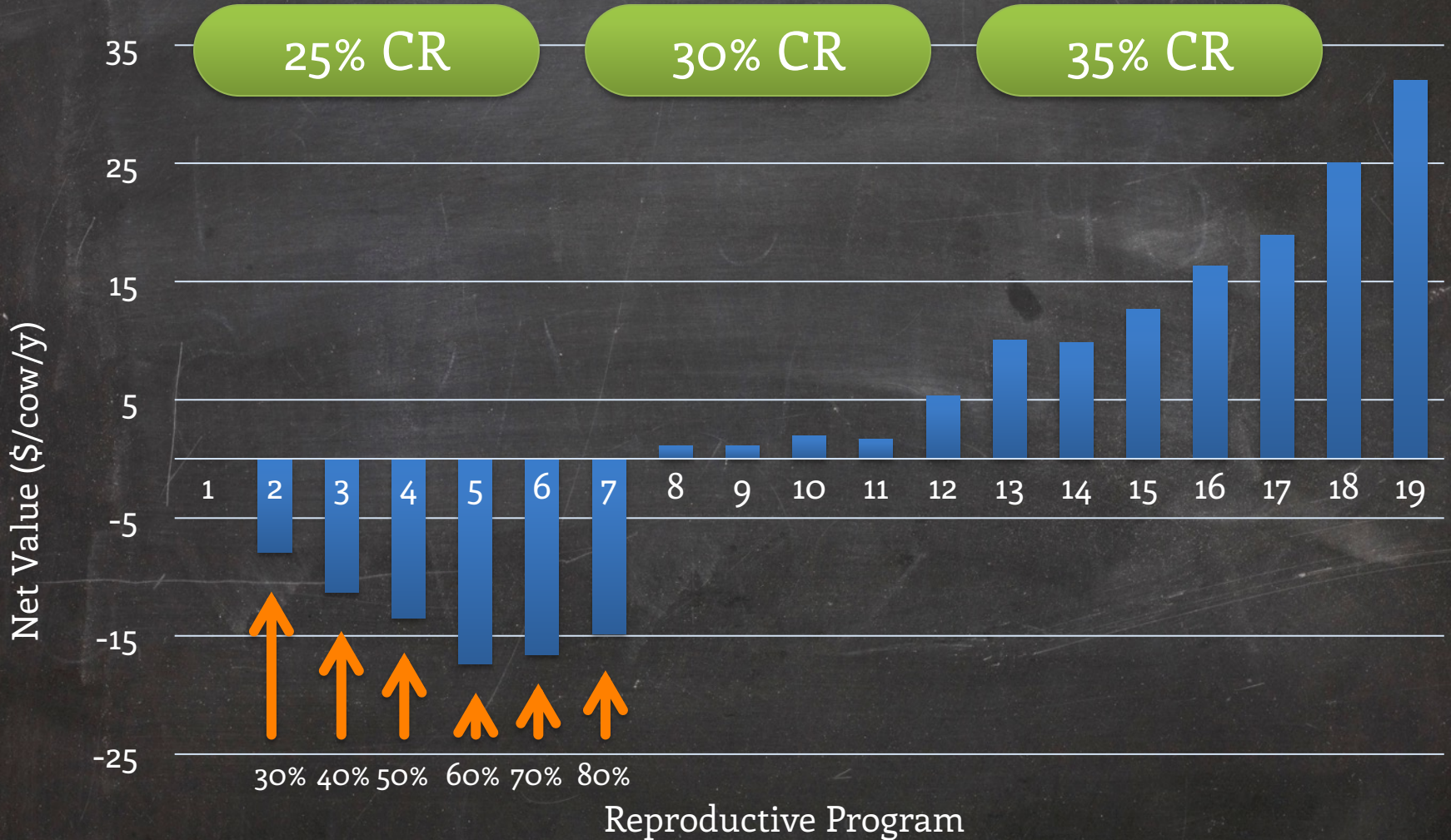


## B. Combined = Estrus Detection + TAI





# Resynchronization Programs with Estrus Detection 100% TAI vs. Varying Levels of Estrus Detection/TAI



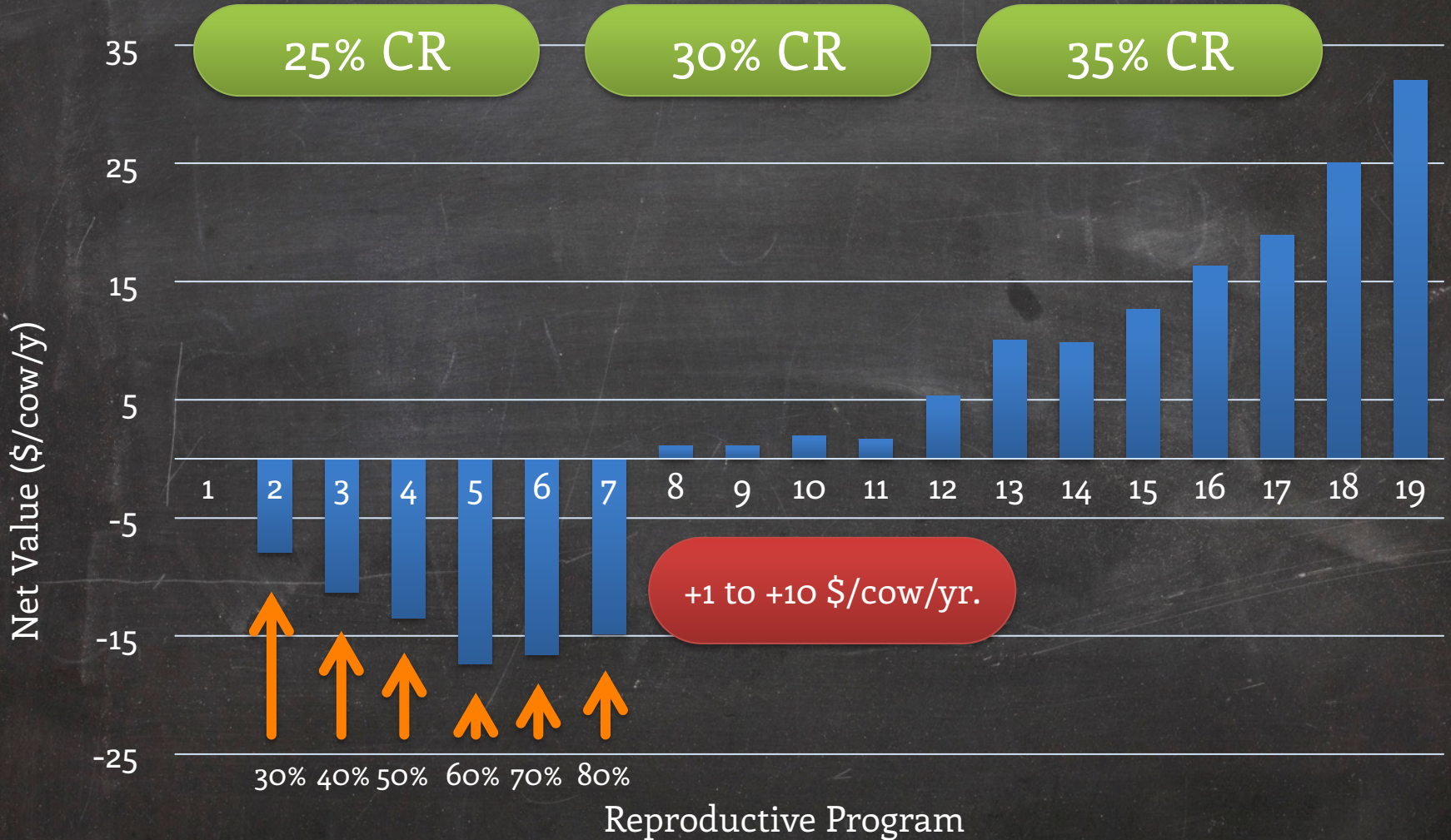


# Resynchronization Programs with Estrus Detection 100% TAI vs. Varying Levels of Estrus Detection/TAI





# Resynchronization Programs with Estrus Detection 100% TAI vs. Varying Levels of Estrus Detection/TAI





# Resynchronization Programs with Estrus Detection 100% TAI vs. Varying Levels of Estrus Detection/TAI





## Resynchronization Programs with Estrus Detection Conclusions

1. Presynchronization before Ovsynch improves fertility
  - Whether its first AI or Resynch!
2. GnRH/hCG will reduce estrus and PGF will promote.
  - Don't use protocols that will reduce estrus if your trying to detect estrus!
  - Estrus Fertility is normally 5 – 10% units better than TAI
3. Initiating Synch with a GnRH/hCG before d 25 will greatly reduce estrus and not improve fertility
4. Shortening your Resynch interval is good but not at the expense of reducing fertility
5. Estrus detection is important but must have accurate detection for good conception rates
6. TAI protocols are an insurance tool



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