

Achieving Excellence in Dairying

Moving from 25L to 45L

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Partner
Central Sands Dairy, LLC.



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Dr. Gordie Jones

- 15 years Dairy Practice
- 10 years Dairy Nutrition / Facility / Cow Comfort consulting
- 3 years Monsanto (BST) consulting
- 6 years designed & managed Fair Oaks Dairy Farms (20,000 cows)
- 5 years build and manage my dairy farm!

Location: Wisconsin Golden Sands Area



Sign seen in Nekoosa, WI Last Sept

- Ice Fishing Practice
- Wed Evening 7 PM
- Nekoosa, High School



Trends in the Dairy Industry over the last 25 years can be best described by the term:

CHANGE



Member
Red Barn Club
since 1977



Remember we are here
because we love cows!

"Pleistocene Mega fauna"

-Born during the last Ice Age

The First Farmers

- Were in Mesopotamia
- Modern day Iraq
- Large headed grains
- Wheat, Barley, Triticale
- A stick in the sand
- A little water and we were farmers!

The First Farmers

- Our First fences
- Were to keep the wild cows out!!
- She opened the gate
- And we now had a cow!

Only 11 species were able to be domesticated.

- Our Cow is the star!
- She Provided POWER, Protein, & Fertilizer
- She truly is the foundation of civilization.
- The foster mother of the human race
- All of the domesticated animals are "herd" species - looking for a leader
- Except the Cat!!

Covenant;
To care for, and keep

**The Star
of the
show!**



Guns, Germs & Steel

Jarred Diamond

Vaccine

- First vaccine....
- Small Pox
- Cow Pox
- Latin Vacca = Cow
- Vaccinate

Cow-inate!!!

Dairy Products!

Milk- Dairy Products

- Weight Loss
- Muscle recovery & Muscle building
- Potent cancer preventer - CLA's

Weight Loss

- Reported this year on Yahoo!
- 2-3 servings low fat dairy products
- Yogurt & cottage cheese
- Lose weight faster / longer
- Lose more from abdomen

Exercise Recovery & Muscle Building

- Casein and whey proteins
- Taken within 30 minutes of exercise rebuilds X% of muscle
- Now used on the Olympic Training tables



Provides a +20% increase in muscle recovery $\frac{1}{2}$ hour after exercise

Efficiency of Production

- Since WWII
- Ave milk/cow is up 400% (7L-28L)
- A car would have to have gone from 18mpg to 72mpg to have that success
- Carbon footprint of dairy production is + 40% smaller since WWII
- JDS June 2009

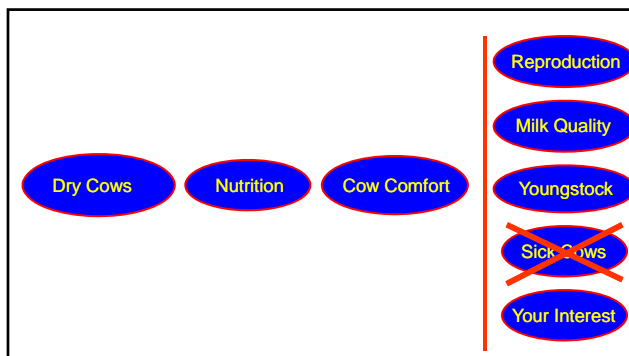
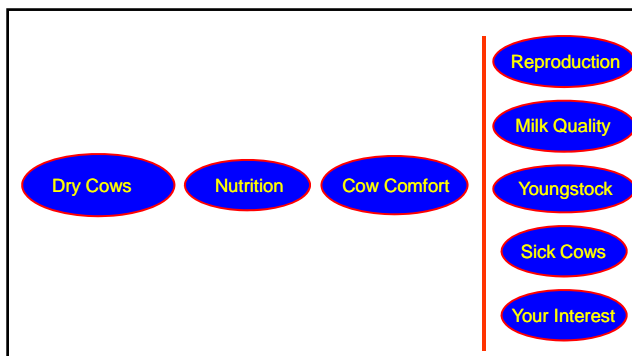
Reproduction

Milk Quality

Youngstock

Sick Cows

Your Interest



- Central Sands Dairy**
- 3,500 milk cows, 600 dry cows
 - 4 row freestall barns
 - 64 - 74 # (29-34L) /cow/day
 - 72 Cow Rotary
 - Calve 300+ cows per month
 - 6 row dry cow barn
 - Methane digester
 - Sand bedding & 125-150,000 SCC



Rules that still apply

- Cow Comfort is first
- Forage is king
- And Better Forage is better
- Preg rates means you keep cows
- Dry Cow program stops early fresh cow losses
- Milk Quality is EVERYTHING !!!

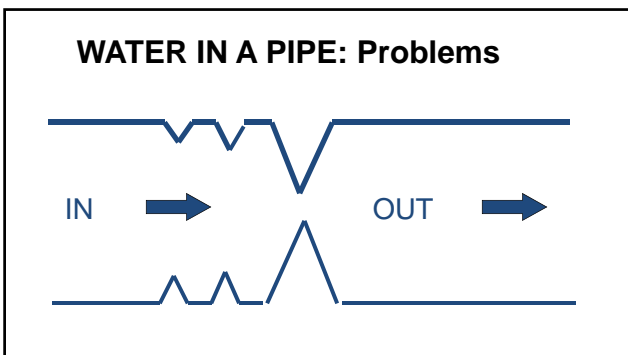
Rules that still apply

- Nutrition
- Dry Cow program
- Cow Comfort
- Reproduction
- People get everything done above!



BOTTLENECK

A rate limiting problem



- Bottlenecks**
- Rate limiting problem
 - Interferes with achieving Dairyman's goal
 - Any improvement pays off in better output
 - Before it is completely "fixed", something else will become the bottleneck

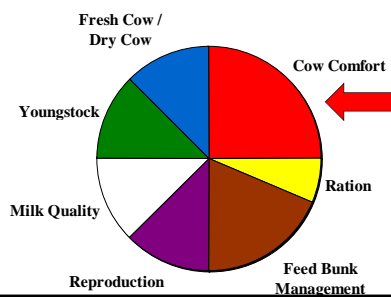
Improving the Dairy

- Survey the status and performance trends of the dairy farm's performance
- Compare to benchmarks of industry performance and personal goals
- Identify bottlenecks!!
- Open them up
- Repeat the process

Books on "Dairy Management"

- "The Goal" by Goldratt
- "The E myth" Revisited by "Gerber"

Milk Production



3 things a Cows Should Do!

- Stand to EAT & DRINK
- Stand to MILK
- LAY DOWN



Central Sands Dairy

"Concentric Consistency"

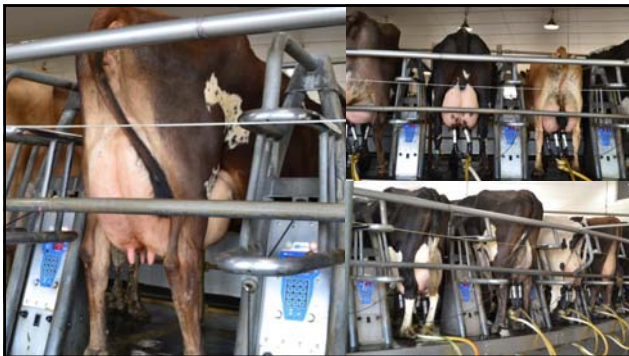


24 Hours



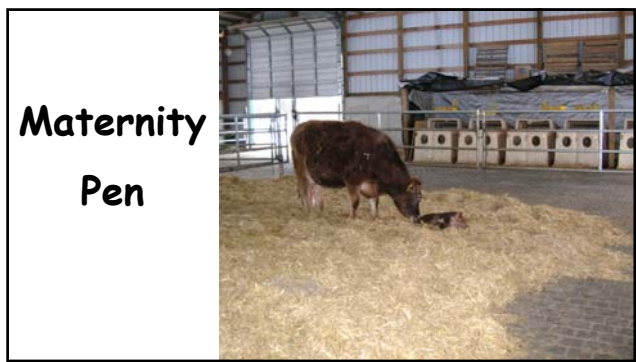
What does a day look like?

- Times milked
- Time in parlor
- When is she fed
- How long is she locked up
- Etc.





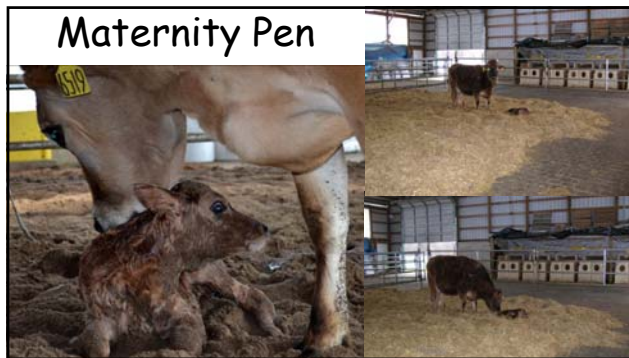




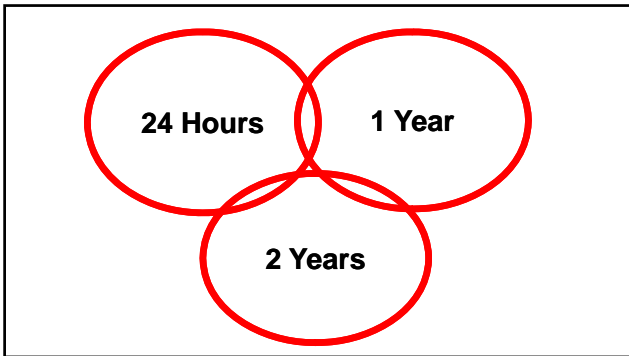
What does a year look like?

- Group changes
- Rations
- When bred
- Pen moves
- How long is she dry
- Etc.





- What does two years look like?**
- Maternity pen
 - Hutches
 - Weaning group
 - Rations
 - Group changes
 - When bred
 - Etc.





Value of SOP's

- Dairy personal are certified in their position!
- Every person knows and understands their job!
- Every person that is certified, has passed an exam (oral or written) about their job.





A B C's

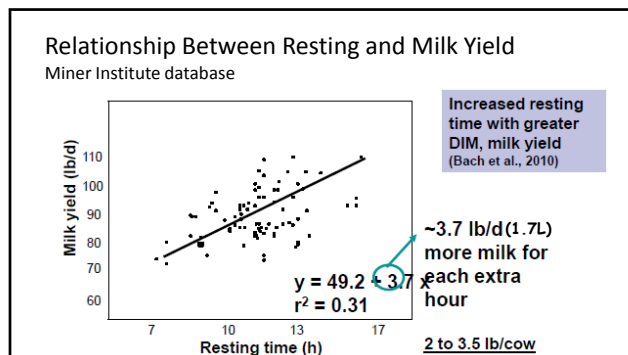
- A** Air quality & ventilation
- B** Bunk management
 - * Ration formulated, mixed & consumed
 - * Bunk design & space
 - * Feed quality
- C** Cow comfort

Management, Environment & Herd Performance

47 herds with similar genetics were fed same TMR

- Milk yield varied by 29 lb/d (45-74 #) (20-34L)
- Non-dietary factors accounted for 56% of variation in milk yield
 - Feeding management
 - Feeding for refusals (64.1 vs 60.6 lb/d)
 - Feed push-ups (63.7 vs 55 lb/d)
 - Stall design and management
 - Stalls per cow
 - Age at first calving

(Bach et al., 2008)





Freestalls

4 reasons freestalls fail

- Lack Of Cushion
- Neck Rail Placement
- Lunge Space Limitations
- Lack of Fresh Air / Vision



3 things a Cows Should Do!

- Stand to MILK
- Stand to EAT & DRINK
- LAY DOWN

" Milk is the Absence of stress!!!"

Get it correct!!


And it looks like this!



Get it wrong!!

And it looks like this!






Dairy Stockmanship

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Dairy Stockmanship

Paul Rapnicki, DVM MBA
Margaret Perala, DVM
Jim Lewis, Emerald Dairy II
Gail Peterson, PhD BCBA
Gordie Jones, DVM




UNIVERSITY OF MINNESOTA
College of Veterinary Medicine
Driven to Discover™

Unlocking dairy performance - thinking like a cow

Components of a Cattle Handling System

- The design and maintenance of the facilities
- The cattle handling skills of the people

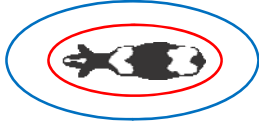


Low Stress Handling Systems

- Informally, this is how to work cattle with low-stress methods
- Formally, this is the study of cow behavior and her stress response
 - Apply the sciences of behavior analysis and stress biology

Stockmanship Principles

- Pressure area surrounds the flight zone



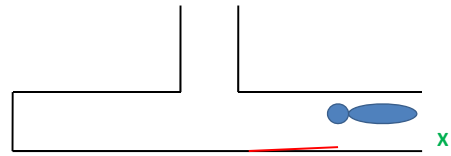
- Apply pressure to animals properly



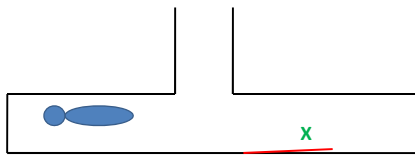
Bud Box

Stockmanship

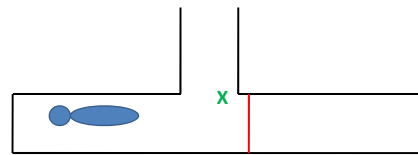
- Cattle want to follow other cattle
- Cows want to return to where they came from
- Always put them in where you want them to come out
- These are the concepts behind the Bud Box



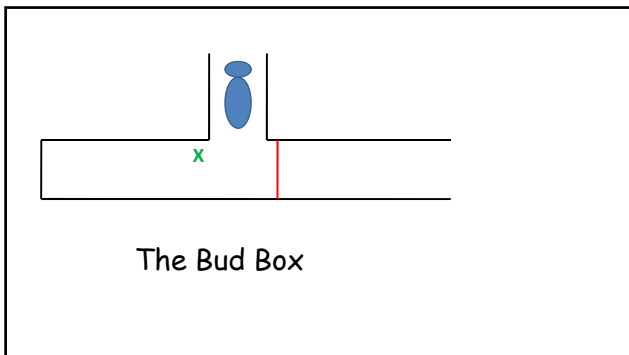
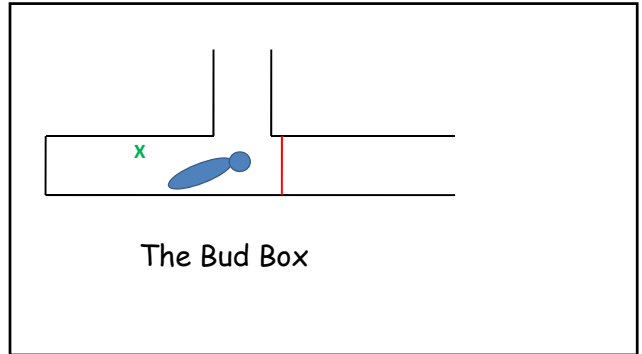
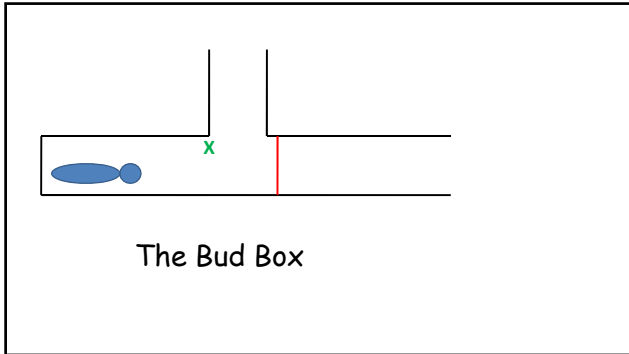
The Bud Box



The Bud Box



The Bud Box



- ### Bud Box Design
- 14 x 20 to load a chute
 - 14 x 30 to load a truck
 - Same size
 - Regardless of the animal size
 - Regardless of the number of animals
 - Exit opening wide enough for 1 animal
 - Person working properly is more important than the size details





Show movie





Questions? Thoughts?



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