Dairy Stockmanship

Paul Rapnicki, DVM MBA
Margaret Peralta, DVM
Jim Lewis, Emerald Dairy II
Gail Peterson, PhD BCBA
Gordie Jones, DVM
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 (65,000 cows)
- 5 years building and managing my dairy farm!
- Consulting again
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
3 things a Cows Should Do!

• Stand to MILK
• Stand to EAT & DRINK
• LAY DOWN
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
Grouping

• Cows in groups less than 100
• One social group
• Cows in groups of 100-200
• Two social groups
• Cows in groups greater than 250
• No social groups!
Stockmanship

- Cattle
- People?
- Stop
Stockmanship

• Cattle
• People?
• Faster
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

X
The Bud Box
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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
New cows
32’ tip

• A Very Big surprise!!!
• 3 different independent cow welfare audits.
• All saw the same thing - Cow Cleanliness
• Cleanest cows they have scored.
• Why??? Everybody can bed the same
3 things a Cows Should Do!

- Stand to MILK
- Stand to EAT & DRINK
- LAY DOWN
“Milk is the Absence of stress!!!”
Questions? Thoughts?
Feeding the Dry Cow
The “goldilocks” diet!

Dr. Gordie Jones
Partner
Central Sands Dairy LLC
Dry Cow Programs,
A new look at the old way!
In North America there has been a failure of the transition period
Rules that still apply

- Nutrition
- Dry Cow program
- Cow Comfort
- Reproduction
- People get everything done above!
It's a Matter of Too Little or Too Much!

Or how do we get it just right?
Too Much

- Body Condition
- Weight Loss in Dry Pen
- Time in the Dry Pen
- Energy
- Too Many Lactations
- Twins / Triplets
- Grain
- Overcrowding
- Excess Soluble Protein
Too Little

- Body Condition
- Time in the Dry Pen
- Selenium
- Cow Comfort
- DMI
- Fiber
- Protein
- Magnesium
Too Much.........Too Little

- Body Condition
- Weight Loss in Dry Pen
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- Body Condition
- Weight Gain in Dry Pen
- Time in the Dry Pen
- Selenium
- Energy
- DMI
- Fiber
- Protein
- Magnesium
Nutrition - Ration
Rations that work best @ Central Sands

• > 50% forage
• No More than 6-8# total dry matter from feeds with 40% NDF that are not forage (by-product feeds)
• Butterfat’s > 3.75 Holstein
• Butterfat’s > 4.65 Jersey
• Rumensin @ 420mg/cow/day
Across the US there has been a failure of the transition period.
So what have we tried?
Dry - Fresh Cow Programs

- Close-up programs
- Steam-up programs
- “10-day” programs
- Drenching programs
- Calcium Boluses
- BHB testing
- Short Dry Cow Period
- No Dry Cow Period
- Multiple Milkings
- Once a day Milkings
Goldilocks Dry Cow Program

• Comfort
• Lower the Energy - High Fiber
• Refer to Jim Drackley’s work
Displaced Abomasums

- US Dairy Industry
- Most Dairies have a goal of 4-6%
- Less than 1% is very achievable!
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15 / 3228 = 0.0046
0.4% DA’s per Year
Fresh Cow Starts?
Time in the Dry Cow Pen?
First projection by days dry for ddry=70-180
First projection by days dry
Too Much

• Body Condition
• Weight Gain in Dry Pen
• Time in the Dry Pen
• Energy & Grain
• One Lactation to many
• Twins / Triplets
• Overcrowding
• Excess Soluble Protein
• Potassium
• Molds & Mycotoxins
Dry Period Guidelines

• At least 6 weeks
  – shorter periods will decrease profits!

• TWO or ONE group ....

• ONE works Great!
  – Far off
  – Close Up
    • Separate pen for
    • 3 wks before calving

INTAKE, INTAKE, INTAKE!
General Dry Cow Ration Guidelines

• No more than 8# DM (3.6Kg) of Corn Silage
• 4-6# dry straw (high quality, low energy) MUST be CHOPPED short
• All the grain needed will come from Corn Silage
• No sorting!!
• When it fails.....LOWER the energy!!
• Yes, these do not add up to 26#!
DMI with Low Energy, High Fiber, Dry Cow Diets

- Far Off Cows 28-32# DMI
- Close-Up Cows 27-29# DMI
- Dry Cows $0.60\text{mcal} \times 28 \# = 16.8 \text{ Mega Cal}$
- Well above NRC of 14.5 Mega Cal
DMI On Ration Changes from Milk to Dry Cow Ration

- Dry Cow Ration  50%NDF ~100% Forage
- Dry Cow  26# DMI @ 50% NDF = 13# NDF
- Dry Cow  .60 NeL *26# = 15.6 Mcals (1.32/kg)
- Milk Cow  50#DMI 26% NDF-f = 13# NDF
Dry Cow - SPECIFICATIONS

- DMI 26-30 lb/day
- CP 13.5-15.5%
- Protein @ least 1200 g of MP
- Ne L .58-.62 Mcal/lb
  - NDF 40-50%
- NDF forage, min. 40-44%
- NFC >26%

NDF Forage (same as milk cow!) 12-13#
## Dry Cow - SPECIFICATIONS

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<th>Component</th>
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<td>DMI</td>
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<tr>
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<td>Ca</td>
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- NDF Forage (same as milk cow!) 13#  
- At least 1000 g of MP
Close-Up Feeding Troubleshooting

Goals
Feed Bulky Forages, Adequate Pe-NDF
Exercise the Cows
Cow Comfort - Well Bedded Pack or Stalls
Adequate Quality Water
Bunk Space ~ 2 Feet Per Head
Close-up Management Troubleshooting

Acidosis Prone Ration
Low Protein & Protein Quality
Excess Soluble Protein
Low Quality Protein
Low Magnesium Levels – High K
Added Phos
Too Much Energy!
Close-Up Management Troubleshooting

Common Pitfalls

Sorting !!! # 1 problem !!!

Poor Quality Forages are Fed

Mold & Mycotoxins A Problem

Excess Potassium,

No Forage Wet Chem Mineral Analysis

Slug Feeding/No TMR Delivery System

Over Crowding
Rumensin all rations at 320mg to the lowest intake cow
Dry Cow Management is the single most important phase of production
3 thinks a Cows Should Do!

- Stand to EAT & DRINK
- Stand to MILK
- LAY DOWN
Questions? Thoughts?
Questions? Thoughts?

Dr. Gordie Jones
Partner
Central Sands Dairy, LLC.

gordon.a.jones@att.net