Parlor Performance and Evaluation
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Interesting Observation
Low SCC herds typically have more consistent udder preparation & more relaxed cows in the barn or parlor

Consistency between technicians & milking to milking

### Parlor Performance and Evaluation

#### Interesting Observation

- Many producers want to improve parlor performance with equipment adjustments and/or purchase of new equipment.
- Much easier and less stressful than training people.

### Milk Performance

#### Table 1: Milk Performance

<table>
<thead>
<tr>
<th>Date</th>
<th>Total Milk</th>
<th>Milk Rate</th>
<th>Cow #</th>
<th>Cow Name</th>
<th>Avg Milk</th>
<th>Avg Time</th>
<th>Avg 1st Milk</th>
<th>Avg 2nd Milk</th>
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<tbody>
<tr>
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### Ken Nordlund 45th AABP

"The single most apparent characteristic of veterinarians who thrive in large herds is that they are viewed as the authoritative person with the herd health and production data"

Most dairy veterinarians and almost all herd managers do not understand parlor performance data!
Milk Quality Basics

“Never make the final diagnosis until you complete the physical exam”

J.L. Noordsy 1971

Gather complete information before you make any recommendations!

Evaluate the entire dairy:
- Records, physical facilities, parlor, parlor data if available, milking procedures & routines

Milk Quality Basics

Always begin by interviewing the owner/manager

The goal is to determine what is supposed to be happening compared to “what do you see” on your walkthrough

Always good to determine what the producer wants!

Typical Milk Quality Issues

There is a gap between knowledge and action.

A plan with no action is a dream, action without a plan is a nightmare!

“Change the dip because of increased clinical mastitis!”

Goals

1. Healthy Cows Are Profitable
2. Control Inputs
3. No Management Belief Is Beyond Questioning
4. Make No Changes Without First Establishing How Their Effect will Be Measured.

Dr. John Ferry 1993
Paradigm Lockdown

“That’s when you have a good way of doing something so you lock down on it as being the best way, rather than considering it a good way and that there might be a better way that you need to find.”
Burke Teichert 2011

Put another way, thinking whatever you are doing is the best way, prevents you from looking for a better way to perform a given task.

Principles of Milk Quality

• Keep cows clean, dry, & comfortable
• Milk clean, dry, stimulated teats
• Use a quality post dip on every cow
• Properly maintain & analyze milking equipment on a schedule
• Promptly treat clinical mastitis
  - Maintain records of treated cows/qtrs
• Cull Chronic cows

Principles of Milk Quality

• Most of your clients have a good working knowledge of these Principles
• Many of them will violate as many as possible & still want milk quality!
Develop a Routine/Protocol for walking a parlor & the complete facility.

Forms will help keep you on track. Use a form if needed and build your own "Cheat Sheet" to guide you as you evaluate a dairy.

Develop YOUR way of walking a farm and do the same thing at each farm. Make it a routine.

Consistent walk-thru's will give consistent results in your findings.

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*Quote from Rick Lundquist*  
Nutritionist; Dairy in Dairy Today magazine

"What I mean by "walk around" management is simply walking around the dairy and observing what's going on.

Whether you're a dairy owner/manager or a consultant, you can't truly get the feel for what's really going on from a computer in an air-conditioned office or even riding around in the truck.

You've got to get out in it too."

Manure on your boots!

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*How do You "See" on Your Dairies?  
Is it "Simply" or "Fully"*
Do some things get in the way of the big picture?
The real secret of discovery consists not in seeking new landscapes, but in having new eyes!

Learn to see, don't just look!

Series of 3 pictures from an Advertisement for a new toothpaste "What do you See"
So “what did Really you see”

Don’t over look the obvious!
What do you See?

- Very difficult to train yourself to really see!
- You must get past the “obvious” to truly see, don’t let the “abnormal become the normal”!
- Simple observations can allow focus to be properly brought to critical areas.

Why is Parlor Performance Important?

Key to healthy high producing cows; Let them be cows:
- Minimize time away from feed, beds, water and social interaction with other cows
- Reduce “management interventions”

Parlor Performance

- Directly related to how well cows enter the parlor
- Normal entry time is 1 second/stall
- Stockmanship greatly influences cow loading into the parlor.

Installing rubber in this parlor will improve cow entry and position

Best locations for Rubber Flooring

Under the cows in the parlor
-also improves cow positioning in parallel parlors
The exit lanes
The front 15 to 20% of the holding area

Parlor Performance

- How long does it take cows to move from the entry gate to the first stall?
- How long before a technician begins to prep the 1st cow after she reaches the 1st stall?
  DO NOT LOAD THE ENTIRE SIDE BEFORE BEGINNING PREP
- Are the technicians following the routine?
  Do they go back to the first cow if in a group routine?
Once cows start into the parlor, DO NOT STOP THEM!

Parlor Performance

- Adjust the equipment to milk quickly, gently and completely
  - Correct vacuum for the liners being used
  - Detacher settings to remove units at appropriate times
  - Set pulsation to minimize milking time
  - Establish appropriate intervals for system maintenance
  - Upgrade equipment as needed

Parlor Performance

- Optimize unit alignment
  - Adjustment devices
  - Double elbow
- Optimize the milk path
  - Milk hose length
  - Minimize restrictions
Double Elbow Unit Alignment

.3” difference in claw vacuum

Parlor Performance

- Define the milking process - every step!
  - Group routine, post dip on way to next group
  - No helping!
  - Goal is to be attaching last units as cows are entering other side
- Define all parlor cleaning requirements during milking
  - No interference with cow entry

Parlor Performance

- Consider utilizing maximum unit on time if your system has this option

- Don’t be afraid to have technicians remove the last 1 or 2 units if the side is being held up; manually remove and post dip!
Evaluate What the Cows See!

Parlor Summaries & Parlor Summaries

Parlor Performance Monitors

Guidelines are only guidelines!

What are the numbers on the dairy today & what happens to the numbers as either management or equipment settings are made
Average Milk Flow Rate Goals

- 2X Herds > 8.5# (4.8kg)
- 3X Herds > 6.5# (3kg)

Milking Duration Goals

The 1st 25#s/milking (11.5 Kg) = 4 min or less
- Each additional 10# (4.5Kg) = .5 min or less

2 minute milk

2x herds 18.5 pounds (8.4 Kg)
3X herds 14.5 pounds (6.6 Kg)
These are minimal levels - the higher the better!

% units are attached

Driven by the number of technicians, the size of the parlor, & the procedures and routines being followed.
Goal is to have consistency between all milkings and all technician groups

Cows/stall/ hour or Milk/stall/hour

Cows/stall/hour 4.5 to 4.7 for 3x herds
4.0 to 4.25 for 2x herds
6.5+ for larger Rotaries (60 or more stalls)

Milk/stall/hour 115# (52Kg) 3X herds
150# (68Kg) 2X herds

Peak Milk Flow Rate

Between 1 - 2 minutes after units attached
- 2X herds over 10.5# (4.75 L/min)
- 3x herds over 9# (4.0L/min)

Monitor reports or check during milk testing
Stripping Milk Testing

- Hand strip into measuring cup
- Strip immediately after unit removed
- Examine teat color, swelling, ringing
- Note resistance to stripping and volume of stripping milk
- Do test uneven or 3 quarter cows!

100 to 250 ml from all 4 quarters with some higher. (.5# - 225ml)

Less than 1# (454mL) is considered milked out & will not impact the next milkings yield.

Should record # of quarters with more than 100 ml

Monitor volume and resistance of the cows to hand stripping

Frequency of Unit Falloffs & Adjustments

- Less than 10 per 100 cow milkings
  - early-may indicate low vacuum level or poor udder prep/timing
  - late-unit alignment, poor liner condition, overmilking

DC Parlor Summaries

Command is PARLOR\W or PARLOR\P then enter

Select milking number

Most dairies will have the Parlor Summary printed automatically after every milking.

Suggested Values for Flowrates*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measure</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowrate 0 to 15 seconds</td>
<td>lbs milk in 15s interval</td>
<td>2.6</td>
<td>3.2</td>
</tr>
<tr>
<td>Flowrate 15 to 30 seconds</td>
<td>lbs milk in 15s interval</td>
<td>7.2</td>
<td>8.0</td>
</tr>
<tr>
<td>Flowrate 30 to 60 seconds</td>
<td>lbs milk in 30s interval</td>
<td>8.0</td>
<td>8.6</td>
</tr>
<tr>
<td>&quot;Peak&quot; Flowrate</td>
<td>lbs milk in 60s interval</td>
<td>8.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Milk in first 2 minutes</td>
<td>lbs milk in first 2 min</td>
<td>-14 lbs</td>
<td>-16 lbs</td>
</tr>
<tr>
<td>Seconds in low flow</td>
<td>minutes</td>
<td>&lt;25 sec.</td>
<td>&lt;20 sec.</td>
</tr>
<tr>
<td>Overall flow rate</td>
<td>lbs milk / Total min</td>
<td>&lt;1.5 lbs/min</td>
<td>&lt;1.7 lbs/min</td>
</tr>
</tbody>
</table>

*Source: University of Minnesota - College of Vet. Medicine

*Recommendations based 3X milking for Holsteins
### Milk Milking Report

**Date:** 28/10/20

<table>
<thead>
<tr>
<th>Description</th>
<th>Pen</th>
<th>44</th>
<th>45</th>
<th>46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk / stall / hour</td>
<td>102</td>
<td>143</td>
<td>140</td>
<td>90</td>
</tr>
</tbody>
</table>

**Flowrate 15 to 30 seconds:** 7.6 8.1 7.5 7.5 9.3 7.3 7.3

**Flowrate 30 to 60 seconds:** 8.0 8.2 7.7 8.8 9.1 7.6 7.5

**Total Flowrate:** 10.6 10.4 10.1 10.2 11.9 10.1 8.9

**Milk in the first 2 minutes:** 17 18 17 18 20 17 56

**Percent milk in 2 minutes:** 47 43 50 46 60 56 55

**Percent time in low flow:** 51 50 51 51 51 51 51

**Seconds in low flow:** 64 39 41 65 44 48

**Total:**
Parlor Summary

This is a function called Parlor Graph which allows graphing of any of the data on the parlor summary sheets.

Type PARLOR on the command line, then instead of a milking select parlor summary.

Parlor Summary

It is best to graph only 2 ranges at once so the correct ranges can be set by the graph program.

Sometimes it is necessary to build a box from the lower left back to the upper right side to allow full access to data.
Summary

- Parlor data can go beyond mere milk production and has many potential uses
- Example Uses
  - Monitor Individual Cow Performance
  - Monitoring Personnel Performance
  - Monitoring Equipment Function

As production is increased, mastitis control strategies must improve to maintain the economic advantage of the increased milk yield

Education is what you get when you read the fine print.

Experience is what you get when you don’t

Improper prioritization