

Low-Cost Parlor Systems- Producer Survey

NORTH CENTRAL
RISK MANAGEMENT
EDUCATION CENTER



United States
Department of
Agriculture

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Food and
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Healthy People. Environments. Economies.

Producer Survey Response

- 18 producers responded
- Avg. installation age: 8.2 years
- Herd average: 54.3% increase
 - Before: 73 cows
 - After: 112 cows
- Average cost: \$59,919
 - Includes building shell, parlor framework, and added milking equipment (lowest parlor built for \$8,500)

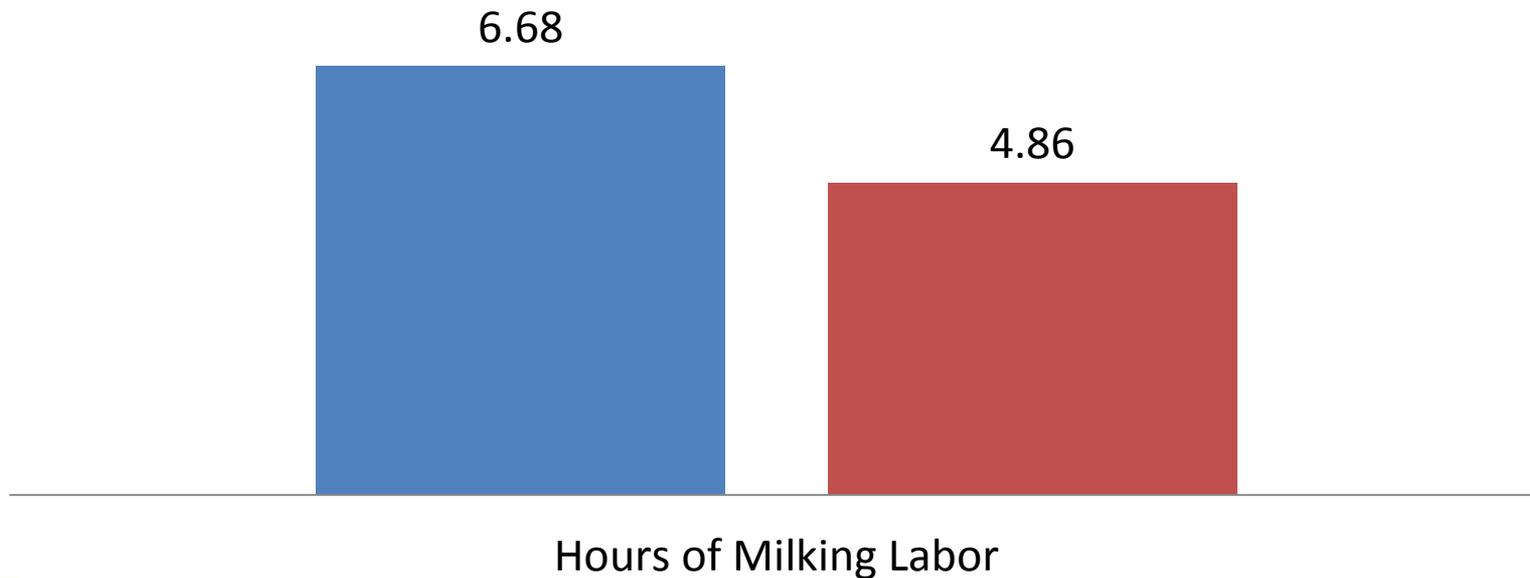
Labor Efficiency

- Primary goal when installing a LCP
 - 2.44 hours of labor saved per day
 - Labor savings valued at \$8,015/year

27.3% Decrease in Total Milking Labor

Milking Labor

■ Before LCP ■ After LCP



43.8% Increase in Heat Detection

Heat Detection

■ Before LCP ■ After LCP

0.16

0.23

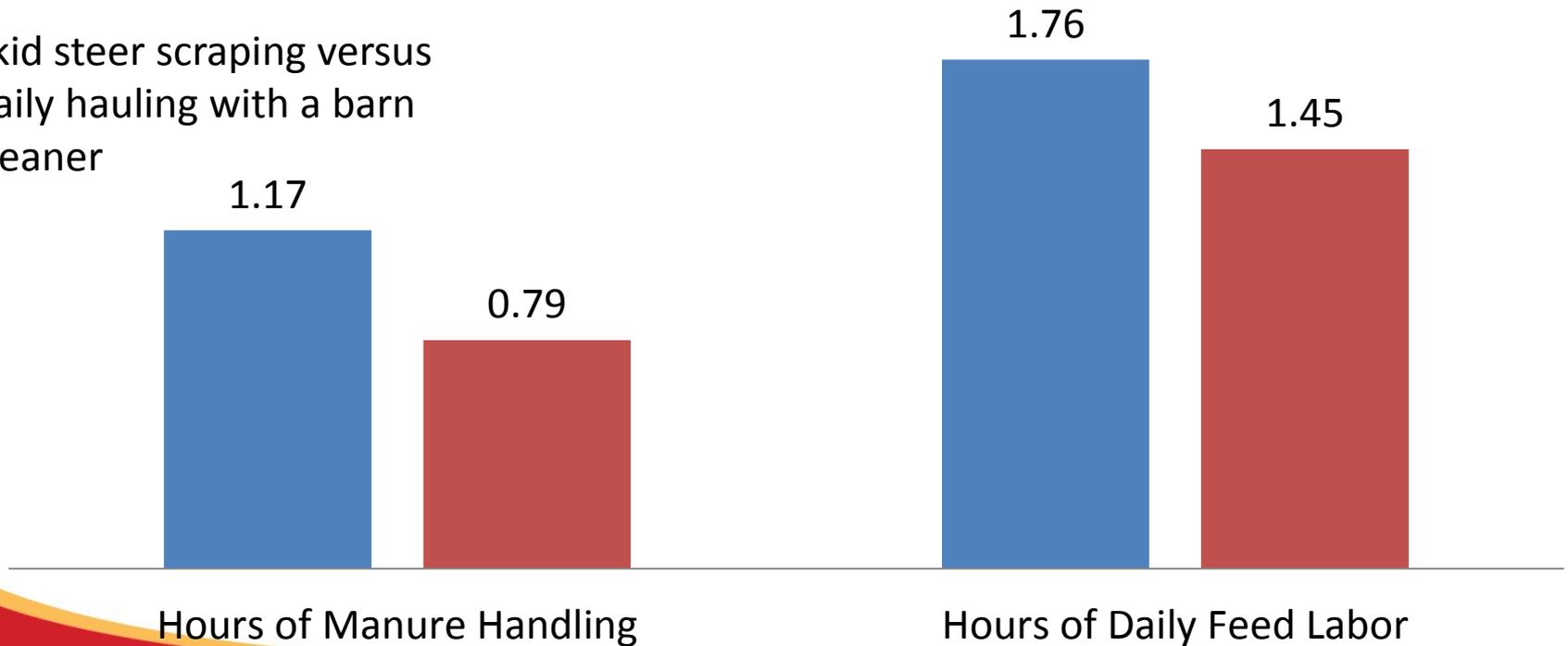
Hours of Heat Detection

32.5% & 17.6% Decrease in Manure Handling and Feed Labor

Manure and Feed Labor

■ Before LCP ■ After LCP

Skid steer scraping versus daily hauling with a barn cleaner



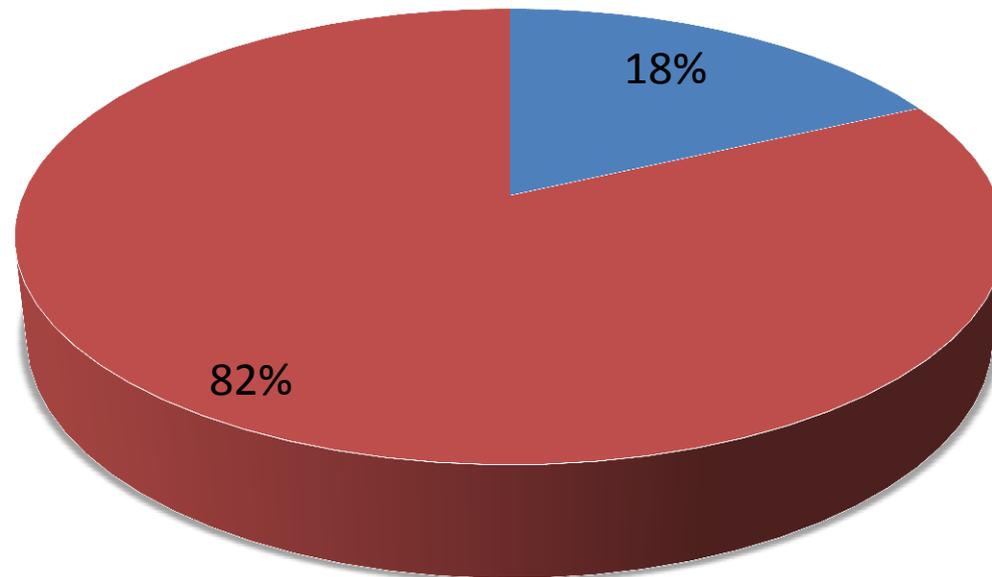
Labor Efficiency

- Cows milked per labor hour
 - Increased from 25 to 47 cows
 - Some producers able to achieve the goal of 70 cows per labor hour including set-up and clean-up!
- Labor cost per hundredweight
 - Reduced from \$1.83 to \$0.95/cwt.
- Labor cost per cow
 - Reduced from \$0.98 to \$0.50 per cow
- *If comparing milking labor savings at a constant herd size of 112 cows, savings would be equivalent to \$16,373 annually.*
 - *actual reported labor savings is lower due to producers capitalizing on labor efficiency by increasing herd size while decreasing hours per milking.*

Management Practices of Dairy Producers

Parlor type

■ Built new facilities ■ Used the parabolic stall and remodeled existing barn

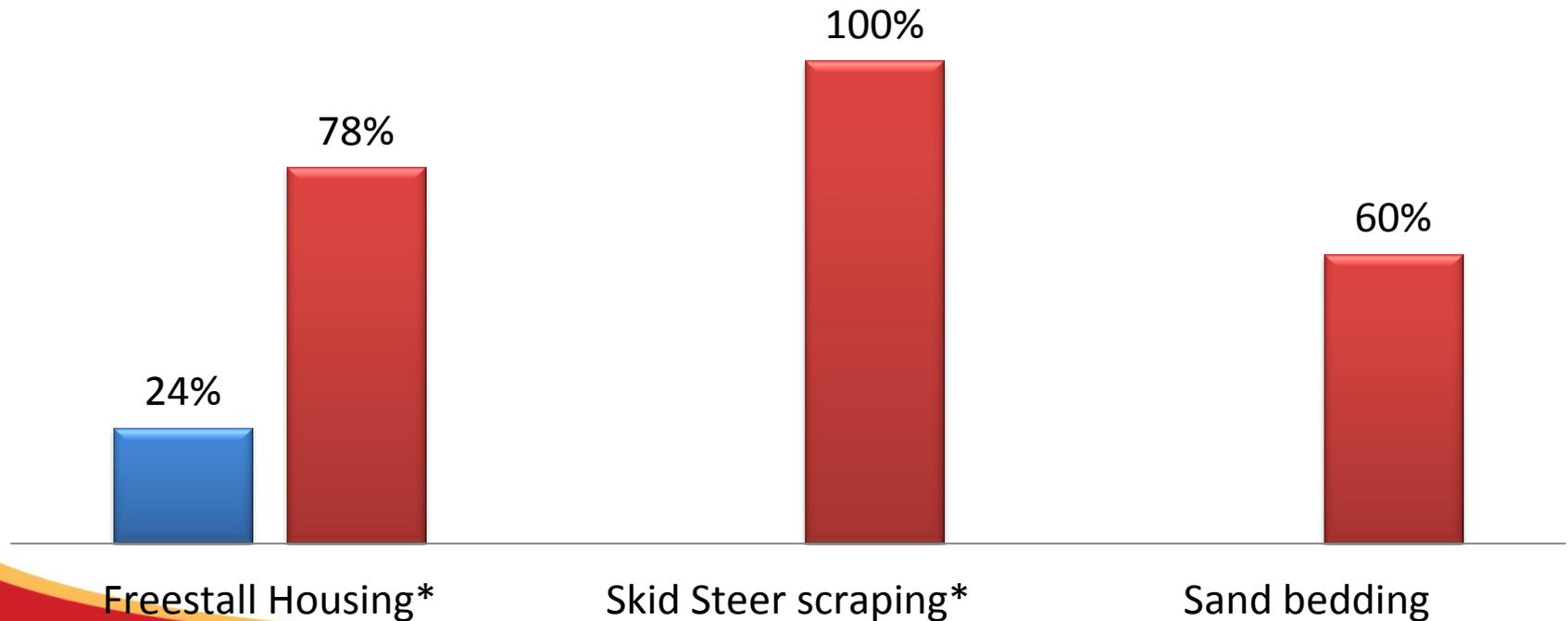


Cattle housing:
10: confinement
6: grazing
2: organic

Management Practices of Dairy Producers

Management Practices

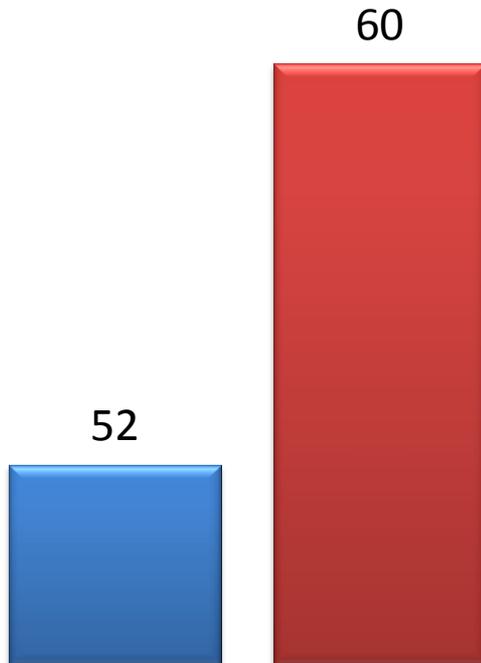
■ Before LCP ■ After LCP



Milk Production and Quality

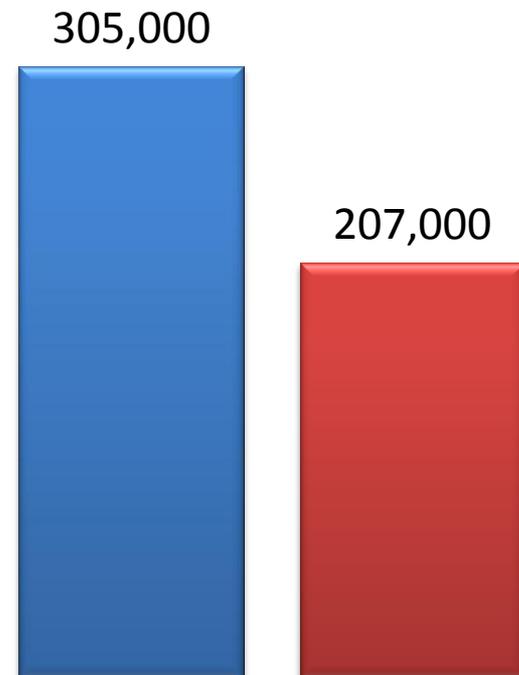
Milk Production, lbs/day

■ Before LCP ■ After LCP



Somatic Cell Count*

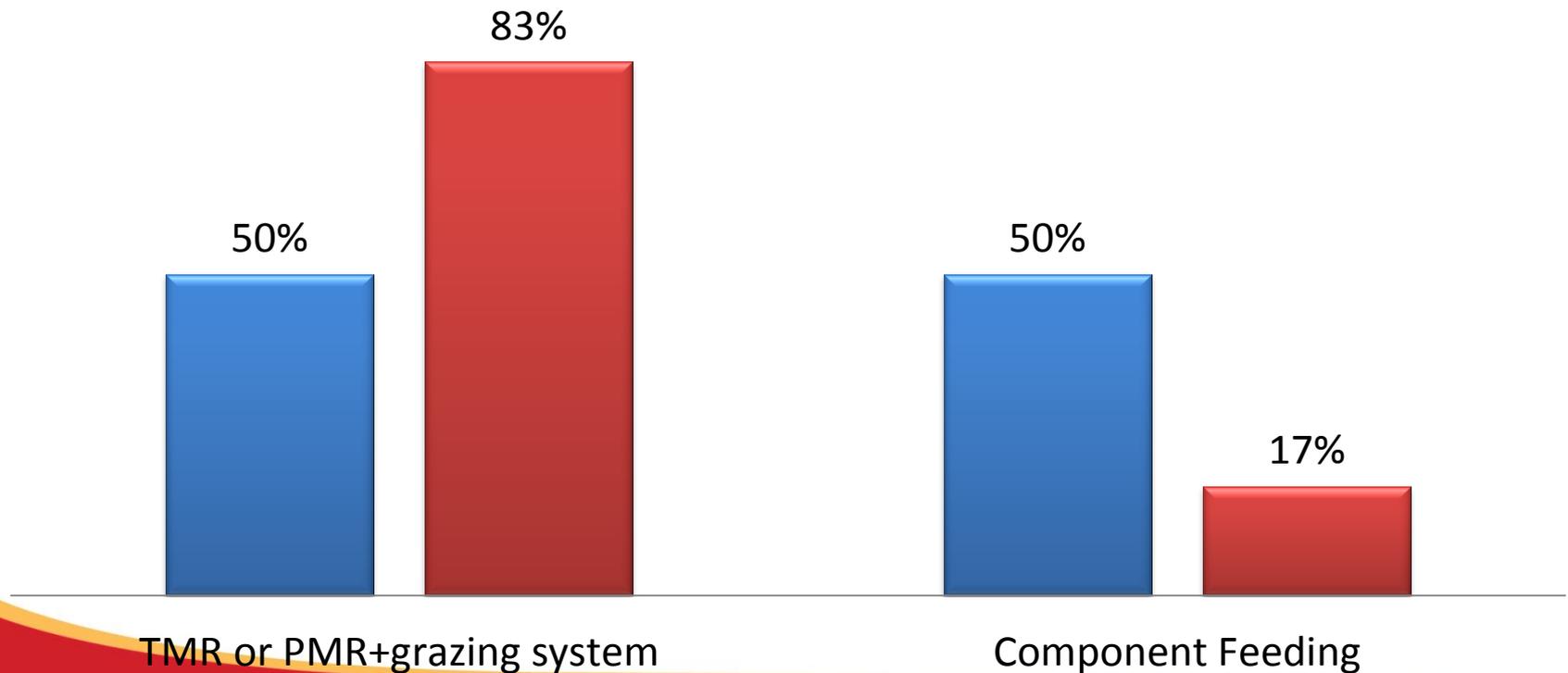
■ Before LCP ■ After LCP



Feeding Management

Feeding Management

■ Before LCP ■ After LCP



Other Issues of Concern

- Reduced cull rate of 4%
- \$7.52 per cow drop in electrical costs
- Water and chemical costs increased annually per cow by \$0.23 and \$0.27 respectively, possibly attributed to herd growth.

Satisfaction Index

- 100% of producers agree or strongly agree that:
 - The LCP has been a good personal, financial and management investment.
 - The LCP has improved cash flow.
 - The LCP has improved profitability.
 - The LCP has improved quality of life
 - By an average value of \$23,818

Reasons for Installing a Low Cost Parlor System

- 1. Gain labor efficiency at a low cost (n=18)**
 - Speeding up milking time, being able to reduce labor costs, and finding labor
- 2. Personal health and safety of milking (n=16)**
 - Less wear on the body, making milking easier and less physically demanding
- 3. Ability to milk more cows and expand (n=7)**
 - Not having to switch cows, being able to milk more cows in less time in order to expand
- 4. Extension advice and assistance (n=4)**
 - Dairy Field Specialist's resources, advice and encouragement
- 5. Desire to stay in dairy business (n=4)**
 - Overcoming worn out facilities, a barn fire or moving to a new location

Investment Analysis

- Low annual investment cost due to parlor frame and stall work
 - Easily retrofitted, updated, or remodeled
- Annual investment cost assuming:
 - **15 year useful life:**
 - \$59.44 per cow or \$0.32 per hundredweight
 - **10 year useful life:**
 - \$75.34 per cow or \$0.41 per hundredweight
 - **Total annual investment and labor cost:**
 - \$1.27/cwt. (15 yrs)--\$1.37/cwt. (10 yrs)

Definition of LCP

- Can have different meanings to different people
 - Retrofit stall barn
 - Using own labor
 - New milking equipment
 - Average cost per stall: \$2,521
 - Range (\$542 - \$4,667/stall)

Investment Analysis

- Payback period
 - Based on annual investment costs over the life, assuming a 15 year life
 - **Based only on milking labor savings**
 - 6.05 years
 - Range of investment cost* (\$8,500-\$150,000)
 - Payback range from 0.63-21.4 years based on initial cash investment and average labor savings.

Summary

- LCP provided a positive quality of life, financial return and milking labor advantage over previous system.
 - Average of 54% more cows able to be milked with an average 2.44 less daily hours of labor.
 - Producers on average doubled their labor efficiency in number of cows milked per hour
 - Production increased 15% while SCC dropped 22.3%
 - Feeding and housing efficiencies were gained as well
 - Investment cost of LCP was \$0.32/cwt. LCP allowed drop in labor cost of milking cows in half to \$0.95/cwt for a total of \$1.27/cwt.
 - (In certain situations, total cost of labor and investment <\$1.00/cwt)

Bottom Line of LCP:

Cows and People like Them!