

Top Ten Milking Parlor Planning Do's and Don'ts: With emphasis on Retrofits and "Low Cost" applications

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1. Know how much you can spend

- Step one is a good financial analysis of the farm operation
 - An unprofitable Business cannot afford to invest in anything
 - Saving time does not improve profitability unless there is a more profitable use of that time
 - Debt = Risk, Good Dairy Managers Are Good Risk Managers
- What is "Low Cost"?
 - Total annual cost of milking (labor + Facilities) < \$1.00/cwt
 - Dairy Labor Survey General Results
 - Milking parlors in the Midwest are 'overpopulated' compared with other regions
 - Efficiency of parlors is behind every other region in the country.
 - Midwest lags behind other regions in wages for milkers.
 - Cost of milking a cow in the Midwest is the highest of all dairy regions (almost double).
 - How to be Competitive
 - Build reasonably sized parlors.
 - The economic optimum for herds up to about 600 cows is a double eight.
 - Don't put the extra person in the pit.
 - Adding a second or third milker to a milking parlor smaller than a double 12 or so is never a good economic move. The cows milked per hour never increases proportionately to the added labor cost.
 - Pay good workers a decent wage. Inspire excellence and reward it - It pays.
 - Resources;
 - 2004 Updated Milking Center Advisor
 - Estimates cost of Milking Facilities and Barns.
 - Estimates Labor Efficiency Cows / Hour
 - Inputs for Detailed Financial Analysis
 - Calculates Annual Cost of Milking Cows (\$/Cwt)
 - http://www.uwex.edu/uwmril/milk_parlor/

2. Let the Installer Design the Milking System

- Designing the milking parlor to meet all of the sanitary and safety regulations is a highly skilled task
- Find a competent milking equipment installer who will work with you
- Resources;
 - Your local reputable Milking Equipment Dealer
 - Wisconsin Department of Ag installers guide
 - http://www.uwex.edu/uwmril/milk_parlor/

3. Don't over estimate the value of old equipment

- Most milking equipment is no longer supported after about 10 to 20 years
 - no replacement parts or replacement parts are expensive – that's why its cheap
 - maintenance is labor intensive
- A competent milking equipment installer is the best judge of the value of used equipment
 - milking equipment dealers keep the used equipment that still has value in their stock

4. The first priority is getting the building right

- Buildings last for 50 years and are difficult to remodel
- Equipment lasts for 10 years and is easy to upgrade (If the building is not a limiting factor.)
- Consider the cost of renovation versus a new building.
 - It's not always cheaper to remodel.
 - In the long run it almost never cheaper to remodel.
- Plan the Building for the padre of your dreams and Then start cutting out parts that you can add on later.
 - Holding area, cow platform and pit floor all slope same direction.
 - Tunnel under platform for heating, ventilation, wiring, milklines, airlines, etc.
 - Leave Extra Room to fix mistakes and add modern equipment
- If budget is limited, spend it on a good building with a future and start with bare bones milking machine.
- Resources: The Wisconsin Idea Milking Parlor.
 - http://www.uwex.edu/uwmril/milk_parlor/

5. Plan building, stalls and holding area for good cow

- Eliminate Turning cows whenever possible.
 - Straight-in, straight-out cow flow is the most efficient
- If you do have to turn cows
 - Two 90 degree turns are better than one 180 degree turn.
 - Allow plenty of room for cows to turn, e.g. extra wide alleys

6. If you are going to remodel you should rewire The Barn

- Virtually every old barn (and many new ones) do not have adequate and safe electrical systems
 - The median barn in Wisconsin is over 50 years old
 - Wiring wears out and new methods have been developed
- The existing wiring system almost certainly does not have the capacity to add on new electrical equipment in the parlor.
- Every electric utility in Wisconsin is now offering grants and low interest loans to rewire barns, Take advantage of these programs.
- Resources;
 - WWW.MREC.ORG

7. Put in Good Lights

- Lots of light makes for a good work environment
- Install Energy Efficient Lights when you rewire
- some utilities and the FOCUS program offer incentives
- Resources;
 - Lighting System Design
 - www.uwex.edu/uwmril/milk_parlor/
 - FOCUS on ENERGY Incentive program
 - www.focusonenergy.com
 - Rewire Programs an Electric Code
 - WWW.MREC.ORG

8. Consider other Energy Saving Technology

- Energy Efficiency is a good investment with 2- 6 year payback on
 - Variable Speed Drive Vacuum pumps
 - Well Water Pre-cooling of Milk
 - Heat Recovery on Refrigeration System
- Resources
 - UWEX Dairy Energy Efficiency
 - www.uwex.edu/uwmril/rural_energy/dairy_energy.htm
 - FOCUS on ENERGY program Incentives

- www.focusonenergy.com
- 2005 Dairy energy Symposium Proceedings
 - www.MREC.org

9. Make Sure Floors Drain Well

- Wet Floors Make For A Slippery Unpleasant Work Environment And ICE!!!
- Beware Of Amateur Concrete Work!
- Mono-slope Floors To A Gutter Rather Than Multiple Slopes To A Point Drain
- Minimum ¼ Inch Per 10 Ft slope
 - More slope is Better

10. Put in Good Ventilation

- You need two ventilation systems.
- Winter ventilation
 - Move some air
 - Remove moisture
 - Add heat
- Summer ventilation
 - Move Lots of air
 - Open walls

Parlor Design Steps

1. Define Parlor work routine
2. Choose Parlor Size and type
3. Calculate Cost of milking
4. Repeat, 1.2 and 3 until your cost of milking is competitive
5. Identify Key Utilities
6. Develop a list of questions for builders, electricians, plumbers and equipment dealers
7. Talk to builders and Equipment Professionals and create your team.

Ways to Reduce Parlor Cost

1. Start Small - Plan for expansion.
2. Start Simple - Plan to add automation, update / upgrade.
3. Start Right - If you can't afford to do it right, How can you afford to do it over?
4. Be careful with used equipment.
5. Realize that Owner Built projects Take Time from other critical profitable tasks; and you are likely to make (costly?) Mistakes