Parlor Evaluation

It is essential that a cow is milked quickly, gently, and completely. The purpose of a veterinary parlor evaluation is to objectively measure how well a dairy's parlor equipment, routine, and environment accomplish this process. A dairy that struggles with milking cows quickly, gently, or completely may see negative effects on parlor efficiency, milk production, and udder health. The following are the components of a complete parlor evaluation:

- **Milking cluster vacuum levels**: A VaDia machine is used to measure vacuum levels at 4 separate points of a milking cluster over a long period of time. These points include the pulsation tube, short milk hose (teat end) and 2 mouthpiece chambers (top of inflation).
- **Milking system vacuum level**: A VaDia machine can also be used to assess vacuum levels and capacity of an entire milking system.
- **Milk flow analysis**: This can be directly measured with a flow meter or indirectly measured with cluster vacuum recording device (VaDia). Analyzing a milk flow curve allows us to see the quality of a cow's milk letdown as well as the amount of time a unit stays attached to her.
- **Unit Fall-off**: Using the VaDia, measures the vacuum pump and regulator's ability to respond to/recover from 2 units falling off and taking in air freely during milking. This allows us to identify problems with the regulator or the vacuum pump capacity.
- **Visual equipment inspection**: Any equipment that can be inspected while the system is on will be inspected.
- **Parlor routine assessment**: This includes stimulation time, dip contact time, lag time, milking unit-on time and turn time. Parlor routine has a large effect on milk letdown, udder health, and parlor efficiency.
- **Short-term teat end changes**: Includes teat skin condition, color changes, and swelling at the base. These changes measure how the milking process affected the cow <u>today</u>.
- **Long-term teat end changes**: Assesses the amount of hyperkeratosis present at the teat end throughout the herd. This change to the teat end measures how the milking process has affected the cow <u>over the course of her lactation</u>.
- **Unit alignment scores**: Assesses the overall alignment of milking machines during unit-on phase. Malalignment can negatively affect the quality and completeness of a milking procedure.
- **Strip yields**: Measures amount of residual milk within a cow immediately after machine removal. Low strip yields indicate overmilking. High strip yields indicate poor milkout.
- **Teat end swabs**: Measure how well parlor prep is removing organic matter before the machine attachment. High amounts of organic matter exposed to an open teat end increases the risk for mastitis.
- **Hygiene scores**: Measures the cleanliness of the udders and legs as cows enter the parlor
- **Unit Slips**: Measures the percentage of machines that fall off of an animal during a set period of time and number of animals.
- **Behavior monitoring**: Measures the percentage of animals exhibiting excessive signs of discomfort during the milking process (stepping, kicking)

Following a parlor evaluation, data will be interpreted and presented to farm managers and milking parlor employees. If opportunities to improve parlor efficiency or the milking procedure exist, recommendations will be made. If recommendations proceed to interventions, follow-up parlor evaluations are encouraged to monitor how interventions affect parlor performance.