Making Milk

By Julie Berry

Maintain equipment for quality milk

Maintaining quality milk involves a number of factors. While not the sole contributor, an often overlooked contributor to producing quality milk is maintenance of equipment. "We're milking cows 365 days a year and using the equipment at least two or three times a day, so we need to include equipment and the milking center in our goals," said Rick Watters, a senior Extension veterinarian with Quality Milk Production Services. "It's important to maintain equipment so we reduce the risk of machine-induced mastitis impacts on increasing cell counts."

Maintenance should be scheduled and routine.

Maintenance should be routine or scheduled, instead of a breakdown or an emergency, he said. Maintaining a parlor is a minimal cost when compared to other costs on the farm. But repairs may not always be cheap.

"It's very minimal, the cost for maintenance and repair, so why not rule it out? Maintenance is about four percent of the cost to operate a parlor," Watters said.

Improperly functioning milking equipment can increase risk of mastitis by introducing infected milk to healthy quarters, by damaging teat ends or tissue, or by introducing bacteria to the teat canal. Extreme cases of faulty equipment may cause pain and lead to a stress response, which suppresses the immune system.

"Poorly functioning equipment can have an impact by transferring mastitic milk from one cow to the next. It can create aerosols or project bacteria into the teat canal and can cause teat damage," Watters said.

Part of equipment maintenance includes running a full wash system analysis, including water temperature for each cycle. Also, review water quality. Often the company that sells the farm cleaning chemicals will run test for hardness, but most cannot test for bacteria in waster, Watters said.

Daily equipment maintenance should include:

- Wash the outside of milking units, including shells, claw and hose.
- Check to see if the trap needs to be drained.
- Check all hoses, gaskets and inflations for tears.
- During at least one milking, turn on each milking unit and make sure the pulsators sound OK. Insert your finger to make sure the liner is functioning properly to the touch. It should always be open or closed.
- Check the claw or liner vents.
- Observe clear hoses for moisture or debris.
- Listen for air leaks throughout the milking center.

Weekly maintenance should include:

- Clean air regulator and pulsator filters.
- Examine stall cocks for air leaks.
- Check all electrical connections on pulsators for tightness.
- Visually check all short air tubes to make sure pulsators are functioning.
- Check all connections for detachers, meters and gates. Inspection should be visual and audial.

Monthly maintenance should include:

- Graph pulsators.
- Break down and clean air regulator.
- Flush pulsator air lines.
- Thoroughly check the condition of milk hoses, vacuum hoses and pulsation hoses.
- Check all gaskets for leaks, including milking and washing gaskets.
- Check inside of the trap.
- Inspect floats.

Annual maintenance should include:

- Evaluate the entire milking system according to NMC procedure.
- Replace all rubber parts, including hoses, air tubes and gaskets. This includes wash hoses, jetter cups and duckbills.
- Rebuild pulsators.
- Maintain the vacuum pump.

The other area that is by far the most neglected is scheduled replacement of parts that wear, Watters said. Replace milk hoses every six months.

"If it's cracked on the outside, what is it doing on the inside? The biggest impact is from the breakdown of chemicals," he said. ❐

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