Since our last email, NMC (National Mastitis Council) has revised their 10 point recommended Mastitis Control Program to a 7 point recommended Mastitis Control Program on 08.18.25. The good news is the first 3 points remained the same, so we are good!
The seven points are now:
1. Establish herd-specific udder health goals, monitor and assess outcomes using data-driven methods

2. Manage the cow's environment
3. Establish and monitor proper milking procedures
4. Proper maintenance and use of milking equipment
5. Appropriate management of cases of clinical mastitis during lactation
6. Effective dry cow management
7. Maintain herd biosecurity

NMC Recommended Mastitis Control

4. Proper Maintenance and Use of Milking Equipment
☐ **Install and update equipment according to appropriate standards.**

a) Installation: your choice of equipment provider will probably know all this, but just to keep you in the loop they have to follow these guidelines:
   - MILKING EQUIPMENT INSTALLER MANUAL – DATCP

     https://datcp.wi.gov/Documents/MilkEquipInstallersManual.pdf
   - Designed for effective cleaning and sanitization according to local regulations and standards like the Pasteurized Milk Ordinance (PMO)
     - Grade "A" Pasteurized Milk Ordinance

       Grade "A" Pasteurized Milk Ordinance
   - Ensure proper handling of abnormal milk: Automated milking installations must have a system to detect, divert, and properly handle abnormal milk according to a written procedure acceptable to the state authority.

☐ Service, maintain and regularly evaluate equipment function according to manufacturer guidelines, using dynamic evaluation methods and appropriate testing procedures.
A great installation of a great milking system is just the beginning, as a car (that get used 2 to 3 times a day for up to 20 hours a day), your system needs evaluation and maintenance to keep its peak performance.
If the equipment is having problems it can lead to some problems that are not as easily observed as: cows are not getting milked out properly, milk production drops and teat end and udder health are at risk.

A milking machine technician should perform a complete system **evaluation after each 500-1000 hours of operation** as part of a regular testing, A complete evaluation of the vacuum level and airflow in a milking machines includes the following measurements:

- Rate and ratio of all pulsators (Level II)
- Operating vacuum in the receiver and vacuum difference between the receiver and the vacuum pump, regulator and pulsator airline.
- The 'falloff' test to determine if the system has enough reserve capacity to cope with a unit falloff.
- Effective Reserve and Manual Reserve;
- Regulator "undershoot" or "overshoot" when 1 unit is opened and then closed (this is a simple test for a dirty or sticking regulator).
- Air used by components: Pulsation system, clusters, regulator, and other ancillary equipment.
- System Leakage
- Vacuum Pump Capacity

☐ **Replace liners, milk hoses, short milk tubes and any other rubber or plastic parts according to manufacturer service intervals. Track the number of milkings between replacement to facilitate timely replacement. Replace any broken parts that occur between maintenance intervals immediately.**

The company of your choice should have provided you with their **recommended maintenance guide** for all the equipment that you purchased. Here is BouMatic's for regular milking (rotaries and robots also have their specific manuals):

Scheduled Maintenance Guide

Keep a record of how many milkings have occurred to ensure parts are replaced in a timely manner but visual inspection of the system should be done **daily by the milking technicians** and any torn liners, faulty gaskets or broken pieces should be replaced immediately to avoid shutting down your parlor or delaying operations. That is why it's wise to have some spare parts of the most commonly replaced parts as liners, claws, milk hoses, vacuum hoses, etc. at hand. This daily inspection should include:

- Cleaning the air vents (liners and/or claws)
- Inspecting milking and pulsation tubes for tears
- Inspecting liners cracks, changes in shape or twisting

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- Inspecting claws and shells for damage

Some of those problems are not very obvious at mere visual inspection, that is why some companies have systems to monitor pulsation performance, that gives you an idea of how each milking unit is performing between tests performed by your dealer's milking machine technician. Some of those systems will give a list of possible problems and help narrow down where the problem is (liners, claw, etc.), but they are great at monitoring the performance of each milking unit to keep your fine tunned lean milking machine working as a race car for Formula 1, with highest possible

☐ **Thoroughly wash and sanitize equipment after each milking. Work with a dairy equipment service provider on a wash analysis to ensure correct water temperature, chemical and detergent levels, and wash cycle.**

Some dairies have an professional wash analysis done every month to keep up with quality numbers. Other dairies prefer quarterly or every six months. How often you have a wash analysis performed depends on your dairy's goals. You may also want to test more if you have been seeing issues with your bulk tank bacterial count.
Dairy producers can also do quick checks on their own using pH strips. When testing the detergent cycle, a pH of 11 or 12 is desired. For the acid cycle, the pH should be between 2 and 4. On the chlorine rinse, a pH of 9 or 10 is preferred. Also watch and listen to the cleaning system, check the gaskets and jetters and if something does not seem right, call your dealer. A good relationship with your local dealer is key to a high-functioning parlor. Make sure you are on the same page to keep the system running efficiently.

☐ **Maintain all wash hoses so they do not become colonized with bacteria. Run low-level disinfectant (chlorine or iodine) through hoses and/or replace as needed.**

I personally like using a disinfectant in the hoses that you use to wash your parlor, especially when those are used to rinse milking units that became soiled with manure of mastitis.

☐ **In AMS herds, ensure proper maintenance is routinely performed on the robots following manufacturer recommendations.**

We also have our recommended scheduled maintenance guide for robots:
Scheduled Maintenance Guide Gemini
Robots are a great help, but daily and weekly maintenance by the farm personnel is a must! Three times a day floors, walls and attach tool should be cleaned. And the milking and pretreatment unit should also be rinsed 3 times a day. Keeping the robot clean will improve attachment and milk quality. We all know that "manure" happens on a farm, several times a day, so chances are that some manure will get splashed where it should not be.