

# Monitor Cleanliness with ATP Meter

*By Dr. Nick Mayer*

Everyone has a different definition for how clean something is. I can tell you with certainty, my wife's definition of clean is stricter than mine. We all know that when it comes to raising healthy calves, it is critical feeding equipment like bottles, nipples, and esophageal tubers be clean.

A calf bottle might look clean to the eye but might be extremely dirty and have a biofilm built up inside. A biofilm is a protective matrix made up of fat and protein that bacteria secrete to anchor themselves to a surface. I think of it like plaque on your teeth if you skip brushing them for a day. Biofilm is more stubborn to remove from a surface and takes a more thorough cleaning protocol than removing just bacteria alone.

Our vets commonly use a tool called an ATP meter to measure how clean a surface is. This tool



**ATP Monitor pictured above is used to determine how clean a surface or feeding equipment is.**

was developed for hospitals to quantify how clean a room was after a patient was moved out and the next patient was moved in.

ATP stands for adenosine triphosphate. This is the fuel molecule found in all living cells. A surface is swabbed to pick up this molecule. There is a liquid in each swab that contains an enzyme that reacts with ATP and produces light or undergoes

bioluminescence. The swab is then inserted in the reader which measures how much light is given off as a number (RLUs or relative light units).

The higher number tells us more ATP and cells were swabbed off the surface. This indicates a dirty surface. Our goal is to keep calf feeding equipment below 30 RLUs on the meter.

If a biofilm is present, we tend to see readings greater than 1,000 RLUs. I've maxed the reader out at 9,999 RLUs on a couple farms swabbing equipment that visually looked clean.

If feeding equipment tests high, our vets use the ATP meter to review sanitation protocols and work with you to set up a system that gets things clean.

If your wife is a germaphobe, like mine, the meter can also be used to swab her cell phone to prove a point that her definition of clean needs some work as well.

## WVS Discount Warning!

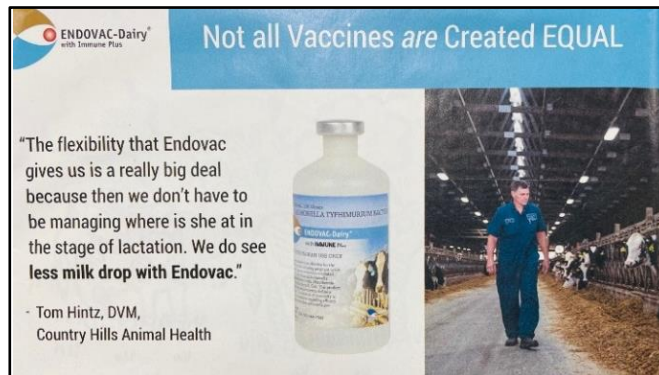
Our software and office staff will no longer support discounts on checks received late. Books close on the first of the month. Checks are due by the 20<sup>th</sup> of the month for the 20% discount. We run statements within the first couple days of the month. We make the last deposit for the month on the last day of the month or the first day of the month right before we run statements.

There is no grace period for late checks after that point. Please, if you want the discount, send your check in timely because the discount will be gone.

# WVS Veterinarian Featured on TV, Internet

At Waupun Vet, the employees and veterinarians have a lot of side hobbies and interests, but since Country Hills joined the practice, I've come to realize we have a first. Never have I been so privileged as to work with a model.

I was reading a news feed on my smart phone, from Associated Press and up pops a vaccine commercial with a much younger looking Dr. Tom Hintz promoting. Wow, the makeup artists or the airbrush artists had really worked his image, but it was definitely Tom.



**Dr. Tom is pictured above in this advertisement. You can see his full interview on YouTube on our Facebook Page.**

I don't know how many of these advertisements he's been involved with, and I don't know what other modeling he does, but he was most certainly a standout promotor, like Brett Favre or Reggie White. I'm going to have to ask him if he needs an agent. I'm honored to be associated with him.

What's not funny about this event is the website knew I did animal health searches, maybe knew my emails, and targeted an animal health product to my news feed.

## Foot-and-Mouth Disease in Indonesia

Foot-and-mouth disease is a highly contagious viral disease of cloven-hoofed animals like pigs, goats, and cattle. Clinical symptoms include fever and blister-like sores on the tongue and lips, inside the mouth, on the teats and between the hooves.

The disease hit Indonesia this year with the first reported case in May. Since then, it has spread like wildfire with 459,000 cases detected as of August 4.


When it hit Great Britton 20 years ago, almost 6.5 million cattle, sheep, goats, and pigs were slaughtered and either buried on the farm or burned on the farm. Nothing was moved.

The U.S. is far larger, and the impact would be far greater with an outbreak. With the amount of movement of people on farms worldwide, the risk just keeps increasing. The World Dairy Expo always gives me a little chill, not from the animals being moved, but the humans coming from all over the world that might bring the virus along with them, then go through the cattle housing barns.

Australia, who does a lot of trading with Indonesia, is very fearful for their livestock industry. Recently my sister returned from a trip to Europe. As she stood in the customs line, a Labrador Retriever walked up to her

luggage, put his paw on her luggage, and then looked at his handler while wagging his tail. The handler looked at my sister and said, "We must examine your luggage for contraband." Sure enough, apples from Europe. She was a little miffed, I was pissed at her because that's all it takes to bring in something like a Mediterranean Fruit Fly that could destroy our orchard industry.

When we are complaining about paying taxes, we should be happy for the border security related to diseases that keeps the severe farm disruptions at bay.



### Blood Lab Holiday Schedule

The lab will be closed on Nov. 24 and 25. Samples must be in the clinic by 12:00 on Wednesday, Nov. 23. Any samples received after 12:00 will be held until Monday, Nov. 28<sup>th</sup>. Testing for CAE/OPP, BVD and Johnes will only be run on Wednesday for the week of Nov. 20-26.

The Christmas and New Year holidays will not affect the normal lab testing schedule and there will be no lab closures for either of these holidays.

