

# MILK QUALITY

*Waupun Veterinary Services, LLC - Your Progressive Dairy Partner since 1958*

## The Future of Milk Harvesting in the U.S.

Dr. Brandon Treichler of Canyon, Texas, gave a talk at the National Mastitis Council meeting in Dallas, Texas this year on what the future of milk harvesting is going to look like. This article is a short summary of the paper he submitted to the NMC.

Dr. Treichler began his talk by looking at the past trends in milk production in the United States.

“From 2000 to 2020, the amount of milk produced per cow in the United

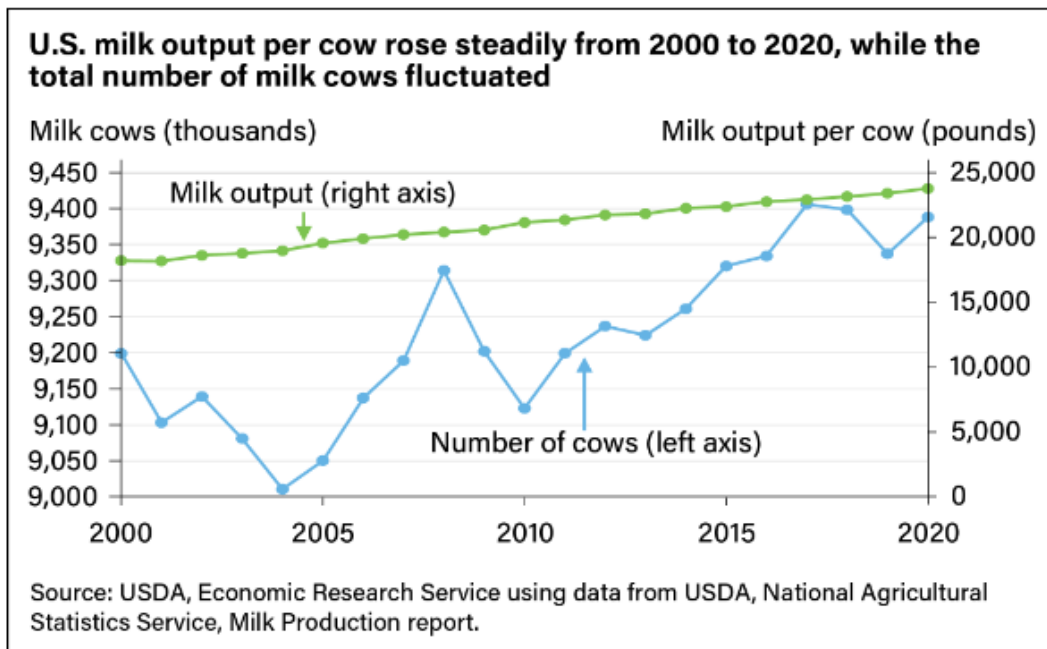
States grew at an annual rate of 1.53 percent. Dairy farms produced 18,197 pounds of milk per cow in 2000, increasing to 23,777 pounds in 2020.

Meanwhile, the size of the national herd increased from 9,199,000 in 2000 to 9,388,000 in 2020, an annual growth rate of only 0.10 percent,” Treichler said.

If you extrapolate out to what the not-too-distant future milk production may look like, the

per cow milk production in 2030 should be somewhere in the vicinity of 26,000 pounds, or a 7% increase over 2023. Adjusted to a 305-day lactation, that works out to about 85 pounds per cow per

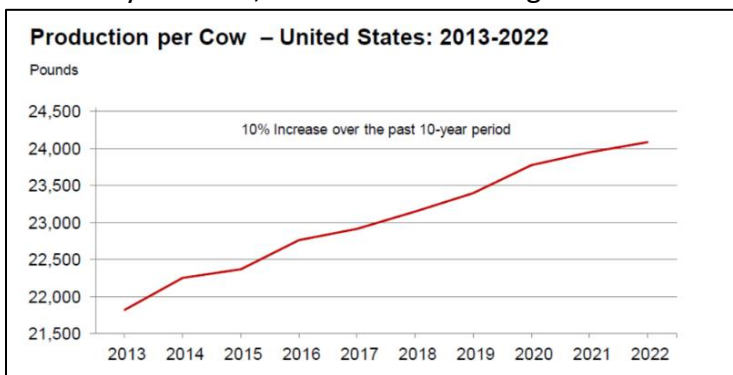
day. That may not sound like a lot, but you need to consider that in 2000 the average cow produced 60-pounds per cow per day. To achieve an 85-pound per day average within a population, a



significant percentage of the herds will be producing over 100 pounds per cow per day. There are currently many herds with good genetics and management that exceed 100 pounds per cow of shipped milk daily for the entire herd. A management factor we must consider is that many herds group cows by stage of lactation, production level and reproduction status to optimize management factors and resources such as labor

and nutrition. This means that entire pens of cows at many dairies today frequently exceed 120 pounds per cow per day, or 40-pounds of milk harvested per shift on 3 times per day milking.

The adage in the milking equipment industry used to be that when designing milking systems, CIP wash flow rates would exceed milk



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flow rates, and thus we sized plumbing and transfer pumps for wash flow rates. In 2024, that is far from universally true. Many herds exceed 8.6 pounds of average milk flow per minute, or one gallon per minute average milk flow rate, in multiple pens with average peak flow rates routinely exceeding 12 pounds (1.4 gallons per minute).

**How will we move this milk away from the cow efficiently? The milk path becomes critical! Short runs of hose minimize friction loss and restriction. Avoiding loops and ensuring consistent slope away from the cow to the line helps improve flow. Minimizing restrictions in the path also becomes key. So does milk line sizing and sloping!**

We should expect the best dairies to continue to push the envelope of milk production capabilities of their cattle, their facilities, and their teams, but to find new and creative ways of doing so that enhance the quality of their milk. We must enable harvesting this additional milk in the same or less unit duration and with less impact on the cow herself. **It is critical that we never find ourselves in a position where we are designing a parlor to be borderline, and where system design and configuration as installed could be a limiting factor in milk harvest and udder health.** The parlor must not be the place where efforts are undone, and understanding, designing, and building for where a herd projects to be in the future can help us realize that goal!

## Practice Tip to Help with Cleaning



Plate count issues can be extremely frustrating. Ninety percent of cleaning problems come down to using the proper amount of chemicals and the right temperature of the water.

Some farms monitor their chemical use by using a sharpie and marking once a week the level of the chemicals in their detergent, acid, and sanitizing barrels.

This is an easy way to make sure that the chemicals are being pumped into the water during the cleaning process.

## Quality Milk Services

### Offered at WVS

*Several veterinarians at Waupun Veterinary Services specialize in milk quality. The vets can come to your farm and evaluate your milking process.*

*To learn more about the services WVS offers, contact the clinic at 920-324-3831 or visit our website at*

*[www.waupunvet.com](http://www.waupunvet.com).*



## Trimming Tails: Scissors

*Keeping the cows clean is a huge part of milk quality. We are no longer able to dock tails because the consumers want their milk coming from cows with tails.*

*Trimming the switches on the tails is the next best thing to docking tails. Many dairymen use scissors to clip the hair on the switches. The farmers tell me that the Milwaukee brand scissors pictured at right are the best at trimming the hair on the ends of the tails.*

