

Lessons Learned from Visiting Dutch and Danish Dairies

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We recently shared the wonderful opportunity to participate in a 10-day study abroad trip to the Netherlands and Denmark with a focus on the dairy industry. For many of us, this was our first view of dairy farms outside of the United States. No matter how many dairies we visit in different parts of Kentucky or across the world, we always learn something new at each dairy. In many cases, it seemed as if we were getting a glimpse into the future as trends in the European dairy industry are often about 10 years ahead of the United States. Of course, different economic, geographic, social, and climatic conditions alter the way their dairy industry works compared to ours. Following is a list of some of our most interesting observations:

1. Dairy people are great to work with around the world. We had home-cooked meals and industry sponsored meals. Everyone we met wanted to teach us everything he or she could no matter how much time or patience it might have required. The level of kindness and hospitality shown by the producers in both countries was remarkable. For the students lacking US dairy experience, it may have been a surprise, but for those of us who have had the chance to work with producers here it was refreshing to know they share the same warmth as our producers here.
2. The European Union still markets milk using a milk quota system. This milk quota system will be phased out by 2015. Effects of the milk quota system could be observed in the small herd sizes, the high level of investment in dairy facilities and technology, and their overall management approach. Undoubtedly, the removal of the milk quota system will change the way they do things and many of the producers we visited were apprehensive about this change.
3. Dairy producers and researchers were very aware of animal well-being and environmental concerns, mostly due to public pressure. Facilities were constructed with considerable consideration of the cow's needs. Every dairy facility we visited used a cow grooming brush. New facilities are being constructed with sidewalls as high as 20 feet to increase cross-ventilation. Genetic evaluations include additional traits, not available in the US, focused on cow health and longevity. Each dairy producer in both countries noted the environmental regulations (including greenhouse gas and ammonia emissions) they needed to consider in managing their operation. Some farms had environmentally friendly slatted floors that minimized ammonia emissions from the pit. One farm we visited often kept calves with their dams for two weeks after calving. Research was being conducted to examine the benefits and drawbacks to this practice.
4. Like US dairy producers, the producers we visited were extremely family-oriented. This coupled with higher labor prices led these producers to adopt more labor-saving technologies. For example, we visited farms with robotic milkers, calf-feeders, feed-pushers, manure-scrappers, bedding spreaders, and lawnmowers. When we toured the Lely plant, they showed us a new robotic technology that will mix and deliver a TMR to cows throughout the day. Producers indicated that one of their main reasons for investing in these technologies was to be able to spend more quality time with their families. One farmer indicated his goal was to make sure he did not have to work more

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than 3 hours per day! Technology use not only allows for increased family and personal time, but also gives detailed information to the farmer about sick cows, cows in heat and milking issues.

5. We had the opportunity to participate in a day training session with a group called CowSignals (www.cowsignals.com). The CowSignals concept focuses on close observation of cows to understand their reactions to their environments and management and feeding conditions. Our trainer, Joep Driessen, described three levels of herd observation: (1) the big picture (looking from outside the pen in to determine number of cows feeding, lying, etc., and overall farm observation), (2) the intermediate level (moving into the pen to look at stalls, lying behavior, feeding behavior, lameness, etc.), and (3) the detailed picture (observing individual cows to determine problems with body condition, hygiene, and other notable observations). Using all three levels provides a more detailed perspective of the farm and allows for more informed recommendations. This extensive evaluation taught everyone to look deeper into the herd and examine the system, not just the cows themselves.
6. One in seven Dutch dairy producers milks cows with robotic milkers. Higher labor costs make robotic milkers a more economical option than in the US. Seeing different brands of robotic milkers in action was a novel experience for most of us and was very exciting. The cows in these farms were amazingly calm.
7. We had the chance to learn about and see the DeLaval Herd Navigator in action, which measures progesterone (for heat and pregnancy detection), BHBA (a ketone for ketosis detection), LDH (an enzyme for early mastitis detection), urea (for protein/energy status), and SCC in-line. All of these parameters are measured from a small milk sample during a normal milking. The ability to measure all of these parameters on-farm in one package is quite exciting.
8. The dairy producers we talked to had adjusted their rations in consideration of higher grain prices by feeding higher forage levels. Generally, the forage: concentrate ratio was higher in these herds than most US herds. As a result, butterfat percent for even the Holstein herds was usually above 4.0%. The producers remarked that they also appreciated the cow health benefits of these forage-based rations.
9. Composted material (typically restaurant waste such as fruits and vegetables) is used as bedding in loose housing systems. An active composting system is not the main objective of the compost barn in the Netherlands – instead, providing a dry, comfortable surface is the goal. As compared to Kentucky compost barns, the beds seem to contain more moisture and cows appeared to be less clean. However, SCC for the three compost barns we visited was less than 200,000 cells/mL in this system. Cows are given more space, typically between 200 and 400 sq. ft. per cow, which explains how they are able to get by with less bedding than our barns.
10. Standards for organic dairying were very different from in the US. For example, organic dairy producers are allowed to treat cows with antibiotics three times per year. Even cows that are treated more than three times can be reintroduced into the herd after leaving for one year. The use of sexed semen is not permitted on organic farms.
11. The Danish dairy producers' checkoff program includes an allocation for dairy research and extension. The Danish Cattle Federation research facility is owned by dairy producers and a board of dairy producers chooses what research projects are conducted. Tax dollars pay for college educations, including a stipend for each student just for being in school.
12. Management is the key for successful management of any farm, regardless of the facilities and equipment. We visited an outstanding dairy farm that had high production, long productive lives, and low SCC with very old facilities (barns and parlor). Good

facilities and technologies help producers manage herds, but at the end of the day the producer is still in charge of all the decisions and is the most important part of any farm.

We appreciate the financial support provided to us through donations from multiple organizations and individuals. We also are thankful for the interest the industry has shown in our trip. The experience was one we will never forget and learned many things we hope to bring back to Kentucky dairy producers.

