**Milk: those cows for all they're worth**

In one of my recent columns, I pointed out that in 2002, the Food & Agriculture Organization in the U.N. stated that in the next 50 years the world population would require 100% more food and that 70% of this increase must come from efficiency improving technology.

According to FAO, 20% of the increase will come from new farmland and 10% from more intensive cropping. The remaining 70% has to come from safe, efficient technologies and by collaboration across the entire global food chain to meet this increasing demand and prevent social unrest.

I also pointed out there that these technologies go to bed each night with full bellies that do not want to face this reality.

Why this huge increase in food, you might ask?

The world’s population will grow from 6.8 billion today to 9 billion in 2050. There are 200,000 new mouths to feed every single day — 7,000 per day in the U.S. alone.

The middle class is growing and will demand more sources of protein and dairy products. To emphasize my point (and that of FAO), let’s take a closer look at China and the U.S. dairy industry.

In addition to having the world’s largest population and a quickly growing middle class, China has increasing discretionary income for food budgets, China, in 2008, announced a new recommended daily intake of 400 g of milk per day.

That is more than a five-fold increase per cow. What was the technology that produced this increase? Actually, there were many along the way, and all are important.

In fact, if you graph out when each new technology was introduced and the average milk production per cow that year, you will get an almost straight line leading from 4,000 lb. per cow per year in 1932 to the 21,000 lb. per cow in 2012. No single technology caused a huge jump in production.

Some approximate dates for the implementation of significant technologies that have been critical to the history of U.S. milk productivity include:

1935: Rural Electrification Act brings electricity to the farms in rural America.
1938: Artificial insemination introduced.
1946: Manufactured inorganic fertilizer.
1952: Frozen semen used in artificial insemination.
1973: Total mixed rations introduced.
1976: Ionophores approved for growing feeders.
1978: Reproductive hormones introduced.
1981: OnFarm computerized records.
1983: Methane digesters.
1984: Recombinant bovine somatotropin introduced.
2004: Monsanto approved for lactating dairy cows.
2007: Sexed semen.

In one of my recent columns, I pointed out that this middle ground.

**Viewpoint**

with **RICHARD RAYMOND**

(RDI) for milk. The RDI went from 100 g per day to 300 g per day. This compares with the current U.S. RDI of 70 g per day.

With existing Chinese dairy production practices, the new RDI for China’s population will require an additional 65 million dairy cows and bulls. There is simply not enough land, water and feed in China to accommodate that kind of herd expansion.

With full utilization of modern production practices that number could be reduced to 23 million additional dairy animals. Another option is that China could increase the amount it imports from countries with a surplus supply.

When I mention the need for increased technology, some begin to think antibiotics, hormones, cramped living quarters, etc. So let’s look at some technologies introduced into the U.S. dairy industry over the last 80 years and the results of these technologies.

First of all, in 1932, the average U.S. dairy cow produced 4,000 lb. of milk per year. In 2012, that number is approximately 21,000 lb. of milk per year.

W**hile growing and distributing food has never been a simple task, it would be hard to deny that today’s food system has become increasingly complex and increasingly obscure to anyone who is curious to learn more about it. Therefore, it is no surprise that this has led to a growing distrust in our food system.

Farmers, including me, the answer to regaining consumer’s trust is to be more transparent in the way we operate as farmers, food handlers and processors. Over the past few years, web cameras have been installed inside chicken and pig barns and dairy farms have been turned into tourist attractions. Likewise, farmers have increasingly found time to make themselves available both on line and off to help others learn more about what happens around their farms each day.

In an effort to be more transparent, I had an interesting discussion the other day when one of my beef customers was visiting. She loved to see our cows and how our steers were raised and finished but in no way did she ever want to know what steer her hamburger originated from. I came to understand that she consistently understood that in order for us to live some-

thing — plant or animal — has to give its life but did not want to actually make the connection to the individual animal that would have to be.

While the thought process was not to surprise me, it got me questioning transparency, and I began to wonder how much transparency is too much?

Mother Nature can cause unfortunate circumstances on our farms. The weather can cause livestock to overheat or freeze; animals can become infected with bacteria and viruses. Just last winter, we had two sick calves become dehydrated and die. In both cases, they were almost dead. While we did everything we could do for them, we were only able to save one of the calves.

Wanting to share my experiences with my friends online, I found the most positive way I could to explain what had happened and had a positive response.

However, I do question, how many people would have wanted to see an actual photograph or video of the sick calves?

Then comes the hardest question about increased transparency. If I did post a picture, who might have gotten a hold of it and how might they have used it for their benefit to draw unwarranted attention to our farm?

Overall, I feel that finding a way to focus on the information in a positive manner instead of using negative words can help encourage others to learn and understand more about the situation presented.

While each individual may have a different expectation as to how transparent they expect farms to be, it is up to us to find a way to openly share what happens on our farms, in a way that does not show the more delicate subjects in the faces of those who might be more sensitive to the situation.

It’s really about finding that middle ground.

**Viewpoint**

with **MIKE HALEY**

MIKE HALEY* farms alongside his father Steve and wife Pam in Ohio, where they raise corn, soybeans, wheat and registered Simmental cattle. He is passionate about sharing information about agriculture with the public. He is active in online conversations and can be found at http://justfarmers.biz and on Twitter @farmermikeh.

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