



Back to Basics

by **RON TORELL**, *Extension livestock specialist, University of Nevada, Reno*

Technology shapes the industry

Technology and products we now take for granted were fascinating to generations gone by. Imagine the amazement of the caveman as the first wheel rolled off the assembly line. The wheel led to the human-drawn pull cart, which led to the horse-drawn cart, which led to the motorized vehicle.

How about the old sayings from our grandparents' generation? "That is the neatest invention since sliced bread," or "That's the greatest thing since running water."

The beef industry has gone through a similar evolution brought on by technology. Following is my chronological "short list" of technologies I personally feel have helped shape the U.S. beef industry during the past 140 years. The list is certainly not exclusive, yet it hits the high points.

Resistance and acceptance

Resistance and reluctance to accept new technology has probably always existed. It is human nature to resist change and stick with tradition. What have you incorporated into your

operation from the 1980s list? Satellite auctions, for example, were very slow to catch on in the early 1980s. Now the majority of cattle are marketed in this manner.

Is internet marketing the next generational jump in technology?

Now look at the list of technologies from the 2000s. Ask yourself what you are willing to accept now or in the future.

We live in a time of technology and information overload. I do not blame those who are reluctant to accept new technology. I share in that reluctance and often resist adoption of new technology.

Most trade magazines talk about some professor, company or corporate ranch manager and their vision or use of EID, DNA testing, ultrasound, individual recordkeeping systems or computer programs that aid the beef producer in profitable beef cow management. If we aren't using this new technology, we often question if we should be.

Much of this technology requires a certain quantity of cattle to make it economically viable and also requires adequate facilities and labor to support

the technology. Not every operation is created equal, so just because a new technology works for one ranch does not necessarily mean it will economically benefit yours.

It is easy to get caught up in all this technology and forget that the basic principals and understanding of beef cow management must be in place prior to implementing any new technology. All the technology in the world is no substitute for understanding and managing the basic needs of the beef cow.

Implementing any new technology prior to having a solid understanding of the beef cow and experience in ranch management is a good way to go broke fast. Not adopting some technologies is also a good way to go broke. Bottom line, not all new technology is for every operation. Caution is warranted.

Fascinating breakthroughs

This fascination with new technology probably received the same level of amazement (and initial resistance) throughout time as it does today. What

technology fascinates you the most? Is it computers, global positioning systems (GPS) or communication gadgets such as cell phones and BlackBerrys? We have just passed the generation where most children graduating from high school have been educated using computers from first grade through high school. Computers are no longer new technology but a given in the education system and business world.

I am as amazed at computers and their many uses as my dad was with the invention of the 8-track tape. "What are they going to come up with next?"

If you would like to discuss this article or simply would like to talk cows, do not hesitate to contact me at 775-738-1721 or torellr@unce.unr.edu. Well, back to the computer in my air-conditioned office listening to The Roadhouse on my Sirius satellite radio.

Editor's Note: *Torell raises registered and commercial Angus cattle near Elko, Nev.*



Technological breakthroughs

- 1868 Refrigerated rail car units introduced
- 1920s Official grading of beef carcasses begins
- 1930s Beef cattle improvement research initiated
- 1930s Artificial insemination (AI) of cattle commercialized
- 1940s Antibiotic and vaccine development for livestock
- 1940s First heritability estimates for beef cattle traits published
- 1950s First successful transfer of a bovine embryo
- 1950s First successful conception utilizing frozen semen
- 1960s Acceptance and use of growth-promoting implants
- 1970s First ionophore introduced for enhancing feed efficiency
- 1970s First prostaglandin (PG) approved for synchronization of estrus
- 1970s First calf born in the U.S. from a frozen embryo
- 1970s Mandatory brucellosis (Bang's disease) vaccination program initiated
- 1980s Anthelmintic product developed to effectively control parasites
- 1990s Refinement of antibiotics and vaccines
- 1980s First identical twin calves born in U.S. from embryo splitting
- 1980's Expected progeny differences (EPDs) gain acceptance
- 1980s Satellite auctions introduced
- 1990s Ultrasound technology accepted
- 1990s Checkoff-funded convenience products developed and introduced
- 1990s DNA technology utilized
- 2000s Cell phones and e-mail used widely by industry
- 2000s Synchronization products refined
- 2000s Sexed semen available commercially
- 2000s Internet auctions gain popularity
- 2000s Electronic identification (EID) capabilities introduced to the industry
- 2000s Instrument grading introduced to packing industry