A Cow Is Still a Cow, But How We Manage That Cow Is Changing

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The staff meeting was routine. The business of the day focused on order and the process of planning and scheduling a sane workload for the upcoming week. Factor in the holiday season, and that can be a challenge.

As the year ends and the holiday season drives most of us into a temporary withdrawal from an excessive work schedule, one cannot help but ponder where things have gone. The changes within the good old world of farming and ranching are phenomenal.

In the last year, many new messengers at the door have changed the focus of the Dickinson Research Extension Center. Agriculture remains a dynamic industry. The new focus is on issues like biosecurity, nutrient management and system interactions.

Questions such as ìWhat breed of cows should a producer utilize in his cross-breeding system?î or ìWhat breed of bull is best?î have not been asked in years. Discussions about how much cows eat or whether oats is a better feed than barley are not common discussions, unless some level of economic return is attached to the question or byproduct utilization from a product like ethanol is a potential.

The production questions essentially have been answered, but the associated system type questions have not. For example, how different cattle breeds interact in the larger system of beef production still remains relatively elusive.

As the staff meeting ends, the biosecurity meeting starts, a routine DREC process never even thought about at the close of the last century. The beef cow may not be changing but, yes, the world is changing and so are the people within the beef industry.

After the meeting, I return to the office and notice the current cover of Genomics and Proteomics magazine (Vol. 4, No. 9). The cover notes the process of charting the protein interaction map. The cover includes the many components of todayís living world, including proteases, receptors, hormones, transporters, ion channels, enzymes, antibodies and growth factors plus a lot of common pathways.

Actually, the map suggests the complex processes of life, and as Alan Dove notes in his article Navigating Complex Protein Interactions, ìThe acceleration of protein characterization is exacerbating a problem with which genomics researchers are already painfully familiar: the bioinformatics bottleneck.î Bioinformatics is the use of computers to extract and analyze biological data, particularly in studying the nucleotide sequences of DNA and other nucleic acids.

Obviously, only a computer could provide the definition since the Webster Universal College Dictionary at my side was 20 years old. A bottleneck is still a bottleneck, and appropriately defined in Websterís dictionary as ìto slow or halt.î Now donít quit reading this article, but rather ponder just where the world is going.

The generations behind the seniors in the industry understand what I just wrote. They deal with enzymes, genes, nucleic acids and proteins like we used to deal with Herefords, Angus, Shorthorns and Simmentals. The world is changing and the ability to keep up is more pressured.

In the beef industry, too much of our discussions and efforts focus on the acceptance or denial of knowledge others already have implemented. A full-duplex or half-duplex electronic ID is not the question, and yet many still are questioning livestock identification in general.

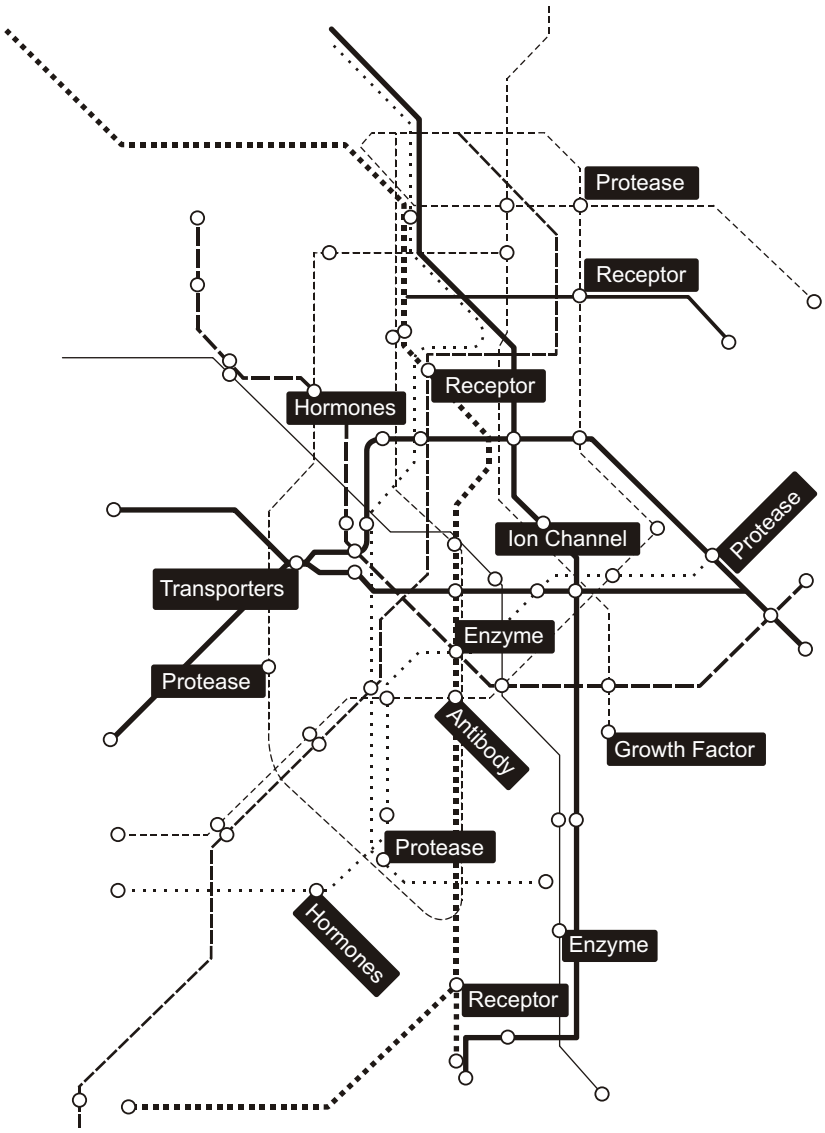
The cow has not changed, but the systems of management and business have and the modern operation needs to find ways to integrate them and move on. Bioinformatics may not be small-town coffee shop talk, but it is at Starbucks. Welcome to next year.

May you find all your USAIP ear tags.

Your comments are always welcome at *www.BeefTalk.com*. For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to *www.CHAPS2000.com* on the Internet. In correspondence about this column, refer to BT0227.

Bioinformatics

Understanding the Beef Cow



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