



Outside the Box

by **TOM FIELD**, professor of animal science, Colorado State University

Taking it for granted

One of my teachers was very adept at asking complex questions and would always follow a student's response with the question, "Upon which assumptions is your answer based?"

The process drove us crazy, but we learned an important lesson — take the time to examine the assumptions that underpin plans as a means to ensure that decisions are based on reality instead of misperception. However, in the chaos of dealing with the day-to-day challenges of the beef business, it can be difficult either as individuals or as an industry to pause long enough to think strategically about the future.

The case can be made rather easily that the American beef industry is the most productive on the planet. For example, the U.S. industry produces the highest volume of beef with only the third-largest cattle inventory. The size and volume of our industry allows us to provide customized products to a variety of markets in a way that allows capture of the full value of each animal.

Nonetheless, we cannot assume that because we have been the global leader we will always hold the lead position.

The amazing productivity of the U.S. beef industry has been fueled by a free-market economy and ready access to technologies, information and research. The success of American agriculture has been founded, at least in part, on a public education, research and development infrastructure manifested in the form of the land-grant university, the cooperative Extension service, as well as the innovations generated from federal and state experiment stations. The creation of these public entities to ensure discovery and dissemination of useful research results to agricultural producers may well have been the most important and valuable decision ever made by our government.

Examining our future

Remembering that it is critical to question the assumptions leads us to an examination of whether or not the education, research and development

infrastructure of the past is sustainable and will be sufficiently strong to assure our position as the world's leader.

John Patterson from Montana State University cited a recent study that evaluated Extension programs and found that 85% of state and territory Extension programs had experienced reductions, 80% had reduced staffing, 60% had discontinued at least some programs, 25% had scaled back the number of county offices, and 60% were requiring staff to cover larger regional responsibilities.

These data add to the growing level of concern that the information infrastructure for agriculture is undergoing dramatic change and those responsibilities for education, research and other information services are shifting from the public arena to private entities.

In a 2006 report to the National Cattlemen's Beef Association (NCBA), a group of animal scientists and producers stated "the traditional information infrastructure is in crisis.

The front lines are manned by talented and highly motivated professionals. However, our current institutions responsible for information discovery and delivery are struggling. Our belief is that the status quo is incapable of delivering desirable outcomes and that significant, if not radical, improvement must be initiated to avoid losing our role as a world leader in the beef industry."

The authors of the NCBA report suggest that if the industry fails to respond to the multitude of signals that the current information discovery and delivery infrastructure is failing, the following outcomes are likely:

- Shrinking resources for the land-grant university system will lead to the rapid regionalization of colleges of agriculture, resulting in a handful of programs that emphasize beef cattle. Even today, the list would not exceed 15.
- Shrinking federal resources for agricultural research will lead to the

research and development leadership for a global beef industry.

Continued success

The challenges of the future will not be met with yesterday's knowledge. Economic history clearly points to the need for investment in research and development if a business or industry is to remain competitive for the long haul. The industry is at a critical juncture where information access appears to be shifting from the public arena to the private sector and where the traditional research and development infrastructure is undergoing dramatic changes. The success and productivity of American agriculture has given both consumers and producers the luxury of taking education, discovery and information dissemination for granted. However, we must take time to consider the consequences of our position if the U.S. beef industry is to remain the global leader.



Editor's Note: Tom Field is a professor at the Colorado State University (CSU) Department of Animal Sciences, where he is responsible for the seedstock cattle breeding program of the university teaching herd. He directs the Seedstock Merchandising Team and teaches Food Animal Sciences, Beef Production and Family Ranching. He is a contributor to the research efforts of the CSU Beef-Tec program. Field is also a partner in his family's commercial cow-calf enterprise, which uses Angus as an important genetic component.

closure of large Agricultural Research Service (ARS) research centers as well as the almost total shift of the research focus to issues affecting consumers directly, with little concern given to the needs of the beef supply chain.

- ▶ Individual supply chain entities will begin to develop research and information sharing that is completely proprietary in nature. Access will be limited to participants in the supply chain.
- ▶ Product and service suppliers will capture the information delivery system, and producers will be left with a system that focuses on the desire of these entities to sell products.
- ▶ The industry will become dependent on existing published information.
- ▶ International competitors (South America, China, Australia and Canada) will gain a competitive advantage as they take over the