

## **RAISING BEEF IN A FIRST WORLD COUNTRY: SCIENCE, MEDIA AND POLITICS**

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These are chaotic times for those who make their living from animal agriculture enterprise. For a good portion of the last century, the industry was focused on improving productivity and it generated fantastic improvements in production per animal by systematically applying the principles of nutrition, genetics, animal health, reproductive physiology, and a host of other scientific disciplines. The impact has been to provide a bounty of animal-based protein capable of meeting the needs of U.S. consumers and key export markets while utilizing fewer resources in the process. As a result, the industry contracted as economies of scale and size favored larger enterprises that could deliver lower costs of production while better meeting the demands of an increasingly target-specific markets. Simultaneously, well fed U.S. consumers had the luxury of approaching their food choices from a life-style and often philosophical vantage point. Thus agriculture finds itself in a paradoxical situation framed by its own productive success, a smaller policy voice as the number of practicing agriculturalists declines, and the naivety and low level of agricultural knowledge of contemporary food system critics, governmental officials, educators, and reporters. As a result, many in agriculture feel unduly criticized and unfairly battered by the social and political climate.

In an affluent society with a reasonably functional free market, agriculture plays a significantly more complex role than it does in emerging economies where the cloud of chronic persistent hunger lingers at the vast majority of doorsteps. In the developing nations of the world, food production and distribution has a focused urgency – provide more calories to better meet the minimal dietary needs of the population. Achieving this objective typically requires improving infrastructure (transportation, access to capital, etc), introducing technologies as simple as fertilizers, pest management compounds, and basic irrigation and as complex as genetically modified plants and other biotechnologies. Yet, in developed nations the value of these technologies and protocols is being hotly debated. Norman Borlaug must have felt a certain degree of bewilderment, if not outright frustration, at the end of his long and fruitful career as he witnessed the demonization of the very technologies he championed to save millions from the scourge of hunger.

While the growing food needs of developing nations loom on the horizon, agriculture in more affluent societies finds itself under increasing levels of scrutiny from activists, social elitists, governmental regulators, and opinion influencers. These vocal critics of the U.S. agriculture system have been reasonably successful in framing the debate. Four trends have begun to shape the discussion about food value and quality, the processes used to grow, fabricate, and distribute foodstuffs; and the multi-faceted interactions between farmers/ranchers, grocery distributors and retailers, food service operators, consumers, and communities. These trends are as follows:

- “Industrial” agriculture challenged on multiple fronts including concerns about food safety, environmental impact, animal welfare, human nutrition and wellness as well as local and regional economic effects. Consumers yearn for simplicity in the face of complex challenges and it is this disconnect that has been successfully leveraged by the food elitists such as Michael Pollan into celebrity status and an even broader platform from which to portray large scale, technology inclusive agriculture as “bad” and small, traditional agriculture as “good”.
- Food emerges as a social platform and flashpoint for change driven by ethanol policy, the push for organic and local production by USDA and other governmental agencies, and the glamorization of the local food movement, farmer’s markets, and other unique niche markets. Food Foresight (2009) suggests that “private foundations, environmental, and public health groups, chefs, media, and the marketplace call for change in the name of healthier consumers, healthier farm animals, and a healthier planet.”
- The consumer mass market continues to fragment while experiencing an erosion of trust. Concerns about economic instability, international unrest, and political turmoil add to the growing tension that is palpable in the consumer marketplace. Consumer markets cannot be categorized into several easily defined categories as the divergence of values expressed by the “baby boomers”, generation X, and the millennial generation has created a host of unique food marketing opportunities.
- Science becomes less of an authority as the web facilitates the rapid diffusion of information and misinformation. Fueled by an increasingly opinion driven media and urban myths transmitted at the speed of light by the internet, contemporary consumers who are several generations removed from any agricultural experience find it increasingly difficult to make sense of the swirling messages about the food system.

Nuffer, et al, 2008

In light of these trends, growing consumer demand centers on the ability of agriculture and the food system to deliver several clear values to customers:

- Transparency
- Authenticity
- Healthfulness of product and PROCESS
- Experience

Nuffer, et al, 2008

In a survey of consumers from the United States, United Kingdom, Germany, Argentina, and China – taste (75%), quality (73%), and price (70%) were the dominant factors affecting food purchases (Ketchum, 2008). In the same survey, consumers were asked which factors would be their highest priority if they were CEO of a global food company. Their top three responses were to improve human nutrition (65%), improve food safety (64%), and make foods that taste great (52%). Results of the survey showed that while consumers indicated a preference

for local foods, they were not willing to pay more for locally grown foods nor were they willing to sacrifice eating satisfaction in exchange.

Today's consumer climate can best be characterized as uneasy and uncertain as the chaos of the times creates fear due to the lack of predictability in nearly all phases of American life. The economic crisis has affected consumer behavior in the short-term certainly and most likely for the foreseeable future. Food Foresight (2009) describes this emerging consumer as "one more mindful about desires versus necessities, more vigilant about spending, and more prone to make trade-offs to save money." The report goes on to say that "interest in things such as green products and healthy foods will continue to grow in a post-crisis world, but consumer will be less willing to pay a premium for them, and will demand more value for their money when they do."

Today's consumers are the least knowledgeable about agriculture and food production in U.S. history. This knowledge gap creates the environment in which activists and special interests have the ability to exploit consumer ignorance and potentially implement public policy which puts American agriculture at risk in terms of its ability to sustain profitability and thus puts homeland security in an even more precarious position. Nonetheless, agriculturalists have no choice but to engage in the discussion and to develop strategies to successfully advocate for sustaining the opportunity for both consumers and producers to make choices from a range of viable options.

While the vortex created by consumer confusion, market chaos, and poorly implemented agricultural policy hurls itself at the industry an even more critical challenge is emerging as agriculture undergoes substantial concentration and down-sizing. Concentration has impacted every level of the beef supply and distribution chain. For example, Wal-Mart now has approximately 29% of the food retail trade while the second through fifth largest food retailers (Kroger Company, Costco Wholesale Company, SuperValu Stores, and Safeway) add an additional 23.2 percent share. Thus the top 5 grocers have just over one-half of all food retailing share. Add in the next five largest and the percent market share climbs to nearly 70% (Supermarket News, 2010). At the front end of the supply chain, cow-calf herds with less than 50 head of inventory account for almost 80% of operations but only 28% of the beef cow inventory. Herds with over 100 cows in inventory account for only 11% of the total enterprises but almost one-half of the nation's beef cows (NASS, 2010).

Since 1987, nearly 250,000 beef cattle enterprises have ceased operations leaving approximately 760,000 producers managing a beef cow inventory of 32.5 million head and generating \$49.2 billion in cash receipts. While the economic impact of the industry continues to be substantial, the cow herd has declined to its lowest level since World War II. Perhaps most concerning about the decline in numbers of producers and the beef herd is that the significant profitability of the cow-calf sector from 1999 to 2008 was not able to reverse the trend (LMIC, 2010). While drought played a role in herd reduction over the past 10-15 years, it is clear that producers voluntarily exited the business during a profitable time in the beef cycle. Age of producer, opportunities to sell land to capture equity, lack of interest by the next generation, and the trend for rising input costs likely played a role but the impacts of rising levels of regulatory activity, negative press, activist pressure, and lack of community support may have played a determining factor in many decisions. What results in the beef industry and in the vast majority

of agricultural enterprises is a landscape of fewer but larger growers, processors, and distributors of food.

An important issue confronting the beef industry and all of agriculture are the declining resources allocated to agricultural research, development, outreach and education by the public sector. While space precludes a detailed discussion of this dilemma, the decline of federal agricultural research efforts, shrinking of land grant university budget allocations for agriculture, and the rapidly growing disconnect between land grant university faculty and the agricultural and food systems must be addressed if the beef industry and all of agriculture is to assure its long term health.

The market and economic chaos alone is sufficiently challenging but when the regulatory and political issues related to the environment, food safety, and animal well-being, are tossed into the fray; the scene takes on a decidedly brawl-like atmosphere. Take environmental regulation as an example of adding complexity to an already strained agricultural system. Here are just a few of the potential new regulations that loom on the horizon:

- a. Redefinition of the “waters of the United States of America” would in effect place all wet areas of the U.S. under the jurisdiction of the federal Clean Water Act including lakes, rivers, streams (continuous and intermittent), mudflats, sand flats, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds with no recognized exclusions to cover ditches, stock tanks, manmade ponds, drain tiles, etc.
- b. Regulation of dust and particulate matter created by tilling, planting and harvesting crops, feed mixing, cattle movement, driving on unpaved roads, and other agricultural uses under the authority of the Clean Air Act.
- c. Regulation of ammonia under the Clean Air Act.

Source: NCBA, 2008

In each case, if either Congress or the agency implements even part of the proposed rules, the net effect will be to increase the level of industry concentration as only the largest enterprises will have the resources to comply with these new regulations which typically leads to additional criticism about the industrialization of agriculture and loss of family-farms.

Perhaps no issue is so fraught with emotional pitfalls, divergent philosophical positions, and misconceptions as the realm of animal well-being. This issue is bookended by two wildly divergent approaches – on one end of the spectrum are those who intentionally inflict pain and discomfort on animals out of cruelty or willful neglect while the opposite vantage point is characterized by those who would seek any means, including violence against property and humanity, to further an animal liberation agenda. Neither of these are appropriate or defensible positions in light of our social contract with the livestock under our care and stewardship and the larger community of human beings who are served by animal agriculture.

The provision of safe and wholesome food is an overarching objective for the entirety of the food and agricultural system. The responsibility for food safety is shared space occupied by the production and processing phase, the distribution and marketing phase, and the food

preparation, service and storage components of the industry which includes consumers. While our attention has been largely focused on interventions to pathogens, some in society question the use of many production technologies such as antibiotics, growth enhancement technologies, pest management compounds, and feed additives out of fear that these technologies may result in a food supply that fails in terms of safety or lacks the ability to fulfill consumer expectations about the wholesomeness of their food supply.

With all of these factors at play coupled with the constant reminder that we must feed the equivalent population of an additional two Chinas over the next 4 to 5 decades, much is at stake – food security at home and abroad, the viability of rural economies, the sustainability of a vibrant and productive agricultural infrastructure, the livelihood of agricultural producers, and ultimately the well-being of consumers.

It would be naïve to suggest that there are simple solutions to these challenges given their complexity. The solutions will likely emerge in fits and starts as we grapple and struggle with these issues. So where do beef producers and industry leaders begin?

From a 10,000 foot perspective, the focus of the beef industry must be on sustaining an environment where profitability can be attained, market development domestically and abroad, and advocating for a free market, limited government landscape. On an individual enterprise level, the creation of a clearly thought out business plan has never been more important. While the cowherd continues to contract, the long term opportunities for those who can manage cost, access land resources through means beyond outright ownership, and build partnerships are bright.

At the more tactical level, participants in the live animal phase of the beef production chain should consider the following:

- Assessment - create the vision, determine the goals/objectives, and examine the prevailing attitudes and values of the enterprise. In many ways, this process is centered on detailing the legacy of a business and its leaders by determining core values upon which future activity will be founded. A question to help start the conversation – are you a craftsman or a technician?
- Evaluate – take a hard look at the specific processes and protocols (calving, branding, weaning, handling, transporting, processing, and marketing) that affect the profitability of the ranch, the well-being of the people and livestock, and the health of the resources (natural, community, etc). In a business rich in tradition that has traditionally been managed in accordance with seasonal signals, the process of taking a fresh look at management activities can yield opportunities for improvements in profitability and quality of life. With respect to animal well-being, environmental stewardship, and food safety; each participant in the industry has a responsibility to be thoughtful and intentional in their activities. If our processes or work is not in line with core values or exposes the business and industry to rational criticism; action is required.

- Commit - dedication and focus is required to seek continuous improvement. Implementation of best practices, measurement of progress, and commitment to continuous learning and discover are vital steps.
- Communicate - train people (family members, employees, day help) to meet the expectations established in the previous steps. Take time to express the expectations, train people so they have the best opportunity to be successful, and then recognize performance that meets or exceeds the expectation.
- Partners – effective partnerships are central to profitability. Membership in local, state and national cattlemen’s organizations is crucial to help protect private property rights, the opportunity to be profitable, and free of the excesses of government. Careful consideration must also be given to finding working relationships with non-traditional partners with whom common goals are shared.
- Educate – the need for industry participants to vigorously pursue knowledge and understanding of the issues confronting the beef industry as well as its benefits and costs. Industry leaders and advocates must function from an informed position and with the skill set to communicate the impact of the beef industry on the community, natural landscape, economy, consumers, and food system.
- Engage – food and agricultural production have become center plate discussion items in contemporary culture. Beef producers and others who tackle the difficult job of feeding a growing consumer population can not afford to stay on the sidelines. Engagement in the discussion that occurs in social and traditional media, the political and regulatory arena, in classrooms, boardrooms, and family rooms cannot be ignored.

Agriculture and the food supply chain is a complex system from which consumers, opinion influencers, and policy makers are typically far removed. The future of the beef industry depends in large part on bridging that broadening gap. The late Jerry Garcia of *Grateful Dead* fame described our situation when he said “somebody has got to do something and it is just incredibly pathetic that it has to be us.”

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