

# Outside the Box: Biggest assumptions in the beef industry

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“Question everything” is an important business mantra that deserves attention in the beef industry. Every decision we make as individuals, organizations or entire industries is made within a set of assumptions. If the assumptions hold true, then our decisions have a better

chance for success. However, what happens if the assumptions are flawed?

Management decisions made for cattle enterprises are likely founded on assumptions unique to the local conditions. However, the beef production chain has been built on three particularly

worrisome assumptions — cheap grain, highly available water and cheap fuel. Under the assumptions of inexpensive corn and diesel, we have built a large feedyard infrastructure centered in Texas, Kansas, Nebraska and Colorado as a means to add value to feedgrains.

## Cheap grain

Beef processing facilities migrated from the urban centers to the feeding belt based on the economic incentives to efficiently harvest and transport beef products. The production of corn and other feedstuffs in at least part of the major feeding states has been supported by access to water and to relatively inexpensive fossil fuels.

Affordable energy costs have facilitated the movement of feeder cattle from regions of the country without feedlot capacity into the Great Plains states. Cheap fuel even made it possible for corn to be transported from Midwestern states to the feedyards further west.

Under these assumptions, selection pressure has been focused on improving per-animal productivity by increasing growth rate and finished weight. Average carcass weights in the 1970s were 575 pounds (lb.), while today's national average hovers near 800 lb. The industry has been able to send younger cattle to the feedyard and extend time on feed while making money.

The pricing system motivates the industry to increase weight regardless of whether cattle are sold conventionally or on the grid. Keep in mind that improved growth has not been accomplished without costs such as increased birth weights, heavier mature weights in the cow herd, and higher maintenance requirements of market and breeding cattle.

Until recently, the assumptions seemed to be holding. However, in the last several years the cost of fuel has risen for all sectors of the industry across the country. Meanwhile, the availability of pumped irrigation water has declined in several regions of



key feeding states where rainfall is insufficient to sustain the required levels of corn production.

### High-demand water

Heated debate over water rights and water utilization is occurring throughout the Great Plains. The competition over water in Colorado has become so significant that in several of the most productive irrigated farming counties of the state, farms were either limited in their ability to use pumped water for irrigation, or in many cases denied access altogether by virtue of a state decree. Since the 1970s, Colorado has lost more than 1 million arable acres, three-quarters of that since 1997. Clearly, water is becoming the chasm between rural communities and their H<sub>2</sub>O-starved urban cousins.

### Cheap corn

What does all this mean to the last assumption — cheap corn? For the sake of argument let's assume that corn moves into the realm of \$4-\$5 per bushel as the result of rising competition such as ethanol production declining in some regions due to limited access to water, and production cutbacks resulting from excessive fuel costs.

High-priced corn and fuel, plus limited access to irrigation in the western Great Plains region, change the rules of the game significantly. Under this scenario the production system must either find a substitute high-energy feed or cheapen the overall ration by increasing the utilization of both grazed and harvested forages. High cost of gain will likely pressure feeders to shorten time on feed, to start cattle on feed at older ages, to utilize backgrounding or traditional stocker-yearling programs, and to seek appropriate technologies to enhance performance in both grazing and feedlot environments.

Cattle that fit this scenario are likely a frame size smaller than today's feedlot population, will reach finishing weights 100 to 150 lb. lighter than contemporary performance, and will yield carcasses that are closer to 700 lb. Selection strategies would alter accordingly, and bulls that top sales in 2006 might be difficult to sell under these altered conditions.

Whether or not these scenarios play out is of less consequence than motivating a serious examination of the underlying assumptions upon which all of our breeding and business plans are founded. The forces of change are at peak speed not only in the beef industry but also throughout our society.

Hockey great Wayne Gretsky attributed much of his athletic success to "skating where the puck was going to be." Beef cattle managers are also skating on a slippery surface, and we can best assure our future by digging at the roots of our assumptions in light of changing conditions.



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