Industry experts gather to discuss current and future means for identifying carcass value.

True WORTH

Story by
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Many cattle feeders believe the future rests on their opportunity and ability to negotiate in a competitive market. Grid pricing offers increased opportunities to enhance profits by selling high-quality cattle on a value-based system. However, most grid pricing is based on plant averages or other cash market prices, which encumbers efficient fed-cattle price discovery.

With price discovery among the hottest issues in cattle feeding today, the industry is looking for leadership as it moves toward systems that are fair, accurate and effective. That's why the Certified Angus Beef (CAB) Program convened a summit last fall to discuss issues surrounding accurate price discovery.

Scientific expertise and creative thinking came together Oct. 23, 1998, in Kansas City, Mo. Present were professors Daryl Tatum of Colorado State University (CSU), Glen Dolezal and Clem Ward of Oklahoma State University (OSU), Gene Rouse of Iowa State University (ISU), Ted Schroeder of Kansas State University (KSU), and Ken Johnson of the National Cattlemen's Beef Association (NCBA). The daylong discussions were moderated by Larry Corah, CAB Program assistant executive director, with input from Packing Division director, Chad Stine, and consultant "Dr. Bob" VanStavern.

The group was charged with evaluating the most accurate means for price discovery today and three years from now and the best course for Angus producers to follow.

The industry faces the unique challenge of finding a base price for *Certified Angus Beef*™ carcasses in a commodity system, noted Tatum. Ward pointed out the volume in such a system holds great opportunity.

Tradition and opportunity

Looking at tradition, Tatum said grid prices have been based on negotiated cash live prices. "But most feedyards cream the better cattle to grid markets, leaving the rest to the cash market," he said. "In the South, that has led to a *Bos indicus* base, and nationwide the live cash market has become thinner, perhaps no longer widely representative." Boxed beef prices are not widely reported, and in any case they are not representative of *Certified Angus Beef* product values, Tatum added.

A major concern today is how to reward superior quality in a marketing system strongly driven by weight and yield, Tatum said. Being consumer-focused is a long-term strategy, but sales and profits are short-term and may rule by economic necessity. He noted beef's sliding market share from 53.9% in 1980 to 42% in 1996, while *Certified Angus Beef* product sales climbed from 1 million to 260 million pounds (lb.) and then to 411 million lb. just two years later.

"What makes the *Certified Angus Beef* carcass different? How can you differentiate it in a commodity system where quality is outgunned by weight and yield? Consumers prefer products from a carcass of less than 800 pounds, but the market says aim for 949 pounds," Tatum said. With the Choice-Select price spread varying seasonally by $10/hundredweight (cwt.), producers need something they can trust. "What premium amount would a producer need for a 750-pound carcass to compensate for value associated with increased weight? These are key questions."

Some of the answers may lie in improved accuracy of carcass evaluation and identification systems, he suggested. "The present Yield Grade (YG) system is effective if accurately applied, and that will require instrumentation, such as Video Image Analysis (VIA), which is calibrated to the nearest one-tenth of a [yield] grade." Similarly, quality assess-

When group members were asked for their predictions of how much product would be branded by 2005, answers ranged from just less than 20% to just less than 50%.

Table 1: Premiums and Discounts*, $, using Oct. 22, 1998, base price of $106.57/cwt. for USDA Choice YG 3.5 carcass

Yield Grade	USDA Prime	Premium Choice	USDA Choice	USDA Select	No Roll
1.5	+28.51	+13.48	+11.33	(-0.78)	(-1.31)
2.5	+20.92	+6.90	+4.86	(-6.55)	(-7.09)
3.5	+14.52	+1.96	Base	(-11.34)	(-11.84)

*Assumes: 750-lb. carcasses; 50% commodity, 50% close trim.

ments must be improved. In this case, instrumentation or technology could move the industry beyond the present USDA Quality Grade system.

"What the industry really desires is a noninvasive, direct measure of palatability at the packer level," said Tatum.

Future grids

Dolezal had specific suggestions on how to move beyond USDA grading to a grid that focuses on both packer and consumer needs. He noted a progressive quality and yield grid today might range from a premium of more than $25/cwt. for Prime YG 1.5 to a discount of nearly $12/cwt. for a no-roll YG 3.5 carcass (see Table 1). That assumes a predominately boneless blend of half commodity, half closely trimmed or denuded boxed beef and includes a packer margin.

The impact of a small variation in value is not adequately addressed in most of today's grids, Dolezal said. He presented data showing the value differences in subprimals by both Quality and Yield Grade. The data indicated that the effect of moving only one-tenth of a Yield Grade can be more than $5 on a 750-lb. Choice carcass. "Grid premiums for yield have been undervalued, starting at only $1 per hundredweight for Yield Grade 1, moving up to $3 per hundredweight today," he said.

The average *Certified Angus Beef* carcass YG of 3.4 last year is obviously an area that needs attention, and Dolezal suggested a near-term goal of moving that average to less than YG 3.2. "A Yield Grade of 3.5 may become too fat for the industry, and we could see discounts for Yield Grade 4s." Longer term, cattle meeting *Certified Angus Beef* specifications should aim below a YG 3, he added.

Achieving that level of cutability would go along with a slight increase in ribeye, a decrease in external fat and a shorter time on feed, Dolezal said. He presented a futuristic grid (see Table 2) that would "implement a true value-based beef pricing system on an individual animal basis" to reward producers who invest in "genetics and progressive management to produce safe, consistent eating quality and high red-meat yield." The grid features cutability, a combination of quality and tenderness, and percent grind as the three main drivers of value.

Prospects for progress

Corah noted the seedstock industry tends to pursue one or two traits at a time. He asked the group about the feasibility of simultaneous selection for traits that maintain excellent quality while improving yield.

Table 2: Premiums and Discounts*, $, using Oct. 22, 1998, base price of $106.57/cwt. for USDA Choice YG 3.5 carcass

Cutability, %	CAB Tender	Less Tender	Ground Beef
72.0	+20.92	+11.33	(-10.00)
68.0	+14.52	+4.86	(-15.00)
65.0	+6.90	Base	(-20.00)

*Assumes: 750-lb. carcasses; 50% commodity, 50% close trim.

Gene Rouse, in previewing the ISU Beef Breeding Project due for publication next fall, said preliminary data indicate it can be done. The ISU project has selected two lines of Angus cattle, one for quality grade and one for retail product yield, starting in 1996. The project records individual lines that increase marbling while subcutaneous fat declines.

Rouse's research relies partly on the use of ultrasound scanning of seedstock in the project herds. Ultrasound measurements have shown that the percentage of intramuscular fat can grow either linearly over the feeding period or mainly in the last 100 days on feed. Adverse weather, sickness and stress also have been shown to negatively affect marbling, Rouse said.

Ultrasound-based sorting at feedyards has not been well-tested, Rouse said. "The industry uses ultrasound at reimplanting time as a convenience, but the accuracy 100 days back is not nearly as good as it would be at 30 or 60 days preslaughter." The early scanning is especially pointless on those animals showing virtually no marbling 100 days back, he added.

Cost of scanning closer to slaughter is estimated at less than $5/head, but the shrink factor from handling is an unknown, Rouse admitted. He predicted value of the knowledge would likely outweigh the costs. "There are people who make money buying fat cattle at auction and sorting them to sell on grids," he explained.

Market pressure can overcome the most disciplined, science-based sorting program, however. "Last spring when the Choice-Select spread was $1, we plucked them light — maybe some of those could have marbled, but didn't," Rouse said.

"We need to build in marbling," said Tatum, "but we also need a system that will ensure they get a chance to express it."

Market pull

Whether it's the market or some other psychology, attitude and behavior are the keys to the future of price discovery, said Ken Johnson. The NCBA special projects consultant noted that beef has traditionally been a heterogeneous product, pushed onto the market by producers at a clearing price. Conversely, a brand-oriented, retail-based beef market would pull cattle of acceptable specifications into the market.

Value discovery, Johnson said, is moving from live animal to carcass to boxed beef and ultimately to the retail cut. "It may come to a point where the only cash transaction will be at the [retail or restaurant] cash register," he said.

Information regarding volume and pricing of livestock and meat is shrinking as both live animals and meat move increasingly on a formulated or contract basis. "Economic information directly from consumer purchases may become the best indicator for price discovery and value-based beef marketing," Johnson said. Consumer preferences can be shown for several criteria, including specific cut, USDA grade, quality, weight and region of the country, he added.

There is a great need for broadening the database, however, Johnson pointed out. At retail, beef makes up 40% of meat sales, with the meat counter making up 18% of store sales, on average. The Computer Assisted Retail Decisions system (CARDs), set up in 1991, builds a database that helps the industry better understand the concept of value, Johnson noted.

It's in the CARDs

"The objective was to develop standardized yields and labor requirements, along with the software that can determine a price from that data," Johnson explained. Retailers traditionally price meat based on what they paid, adding in sales and growth goals, he said. "A key to success is understanding your product mix. CARDs lets a retailer see that he can pay more for something, charge more and make more profit." The Universal Pricing Code (UPC) system is working with CARDs data to build an overall database that could generate credible and constant reports.

If USDA could publish reports from that ongoing stream of data, an informed, competitive market could emerge. For example, a feature report based on intent to do business might come out late in the week, with a second report after the weekend confirming actual prices and movement by subprimal. That report could include comments on supply and demand, weather, and holiday effects, Johnson envisions. "There is great interest in getting up a pilot project in the upper Midwest during 1999," Johnson said. The proposal includes "Retail Consumption Regions" that divide the United States into the West, North Central, South Central, Southeast and Northeast.

The use of Financial Analysis Critical Control Point (FACCP) tools, such as category management, lets retailers order exactly what beef they need, potentially reducing out-of-stock and shrink to nearly zero, Johnson said.

How can the growing retail database be integrated backward? "If [CAB Program] licensed packers could group the Program cattle, could they UPC-scan the boxed beef?" Tatum asked.

"Right," Johnson said. "So the packer knows he has the product that retailers are starting to see that they need. All the pieces of a system are there."

The obstacles for the CAB Program to benefit from this kind of retailer category management include the time it takes to set it up, selling more retailers on the value of data-based pricing and overcoming short-term vision, Johnson said. As retailers adopt CARDs and seek to eliminate variability, opportunities will open for *Certified Angus Beef* product, he added.

Unique values

Clem Ward, the first of two economists to try tying the ends together, said *Certified Angus Beef* carcass pricing should reflect retail, foodservice and export values — the three areas of demand that comprise all *Certified Angus Beef* product sales. That's the ideal. For the practical near term, prices should reflect wholesale carcass value in a way that relates to red-meat yield and expected consumer satisfaction, Ward said. "Each carcass has a unique value, and each carcass should have a unique price."

Ward said the beef industry needs to develop a negotiated dressed-weight base price tied to wholesale subprimal data. "It wouldn't be tied to a plant average cost or reported market top. The negotiated price could be reported and would be useful for price discovery," Ward said. "Dressed-weight pricing moves us one step closer to wholesale value," he adds, where pricing would be based on boxed beef cutout data.

This kind of pricing would evolve to pen-by-pen competitive pricing, only with individual adjustments, he said. The weakness in making those adjustments, of course, is the lack of objective grading, and Ward echoed others in the group by calling for the swift adoption of objective instrument measures for quality and red-meat yield in packing plants.

He suggested possibly developing red-meat yield and tenderness grids for individual animal pricing. "We would have two-tier pricing then," Ward said. "You'd have the base price on wholesale and then later premiums and discounts from actual retail, foodservice and export sales."

Major cash sellers may have 100 pens to sell at 100 different prices under that scenario, and there was some concern that managers of those feedyards are not sufficiently interested in the individual quality of cattle to participate in the program. On the other hand, some packers pay little or no premium for *Certified Angus Beef* carcasses, asserting that in-plant sorting earns all of that added value. The group discussed a future where third-party marketing specialists could bridge that gap, facilitating value-based marketing for the feedyard and presorting for the packer.

Beyond price competition

Ted Schroeder analyzed demand, trying to get at the reasons for the decline in commodity beef demand while demand for pork, poultry and seafood increased since 1980. Comparing changes in inflation-adjusted prices, he noted that only retail turkey had declined relative to beef during the 1980-87 period. "Change in relative price, although very important, has not been the major factor causing beef demand to decline over the past 20 years," he concluded. "Indeed, beef is cheaper relative to pork, chicken, and fish or seafood today than it was in 1980. The main reasons beef demand has declined relate to convenience, quality and consistency, safety, and nutrition."

The market structure does not yet encourage development of convenience products, but if the channels were open to consumer demand signals, beef products offering convenience could "greatly enhance" beef demand, Schroeder said. "Quality, consistency and integrity — all *Certified Angus Beef* product strong points — are especially important to foodservice and export trade. Of the other factors, food safety is an on-off switch, and nutritional needs differ for each consumer," he noted.

Guaranteed tenderness is a natural goal for any product already known for quality and consistency, Schroeder said. He cited a joint KSU-U.S. Meat Animal Research Center (MARC) study of beef tenderness and consumer perceptions. When retail shoppers sampled grilled steaks that MARC shear-force tests had determined were either "tender" or "probably tough," 69% preferred tender. That was a blind test. When consumers were told that one steak was guaranteed tender, 81% preferred it.

Of those who preferred the tender steak, 53% would pay at least $1/lb. more for it than the other steak, Schroeder noted. "That's more than $150 for all the steaks in a typical carcass." That may point to a bright future for *Certified Angus Beef* steaks, the group agreed; but, if a product is uniform and consistent every day, why would a retailer pay more for it? "He would if that product increased total meat sales," Schroeder said.

Goals for the future

Noting that some industry analysts predict 50% of all beef will sell as branded product by 2005, Corah asked the group for their predictions. Those ranged from just less than 50% to just less than 20%. *Certified Angus Beef* product sales in 1998 accounted for about 5% of all U.S. beef sold.

Each group member touched on the need for negotiated base pricing. Some participants pointed out that the combination of volume and quality in Angus-type cattle spells negotiating opportunities for producers, or could serve as a basis for outside private negotiators working with major cash sellers and packers.

Dolezal suggested feeder-packer negotiations for a value-based grid might aim for a figure such as 2%-3% less than the Choice-Select boxed beef spread in cutout values. Popular movements such as the Nebraska "grid-out" of 1998 may move producers closer to bidding the grid base, easily modified to include bidding the *Certified Angus Beef* premium, the group noted. Corah said the carcass price also could be extrapolated back to a live cash bid.

Industry database research can establish the seasonal range of added value for *Certified Angus Beef* product, Schroeder noted. Currently, that varies from $2 to $6/cwt., and packers pay premiums accordingly.

Schroeder wondered if USDA would consider publishing weekly prices for *Certified Angus Beef* boxed beef, with its volume three times that of Prime. Corah noted the CAB Program is a partner to both packers and feeders and cannot "coach both sides" with respect to *Certified Angus Beef* product pricing. "But we can work to come up with a simple report for the good of both sides."

At present, utilization limits premiums paid for *Certified Angus Beef* carcasses, with some packers only utilizing 150 lb. of the carcass as *Certified Angus Beef* product. Packer-based and other competing branded programs also limit utilization and premiums.

Leadership opportunities

Supply and demand will drive vertical cooperation, negotiations and information sharing. The CAB Program is in an ideal position to facilitate an alliance between end users, packers and producers.

To achieve a more positive future for value-based marketing, the packing industry must incorporate lean muscle and tenderness instrumentation. That will lead to red-meat yield and quality and consistency specifications beyond USDA grading, Tatum said. "We especially need objective measures of eating quality."

Rouse said the future holds great opportunity for tracking information from the retail counter all the way back to the producer. He and Dolezal restated the need for seedstock producers to aim for Yield Grades of less than 3.0. Rouse suggested that if grids reflect that goal, the market will drive selection. Seedstock producers should work with customers to gather performance and carcass information, including the *Certified Angus Beef* acceptance rate. "We must encourage individual identification and information gathering at the cow-calf level," Rouse added.

Dolezal said Angus producers will have to lead the industry away from the 949-lb. carcass-weight target and toward the 800-lb. level. Corah said the CAB Program will continue analyzing its existing data to help in identifying parameters and values.

Schroeder said research can look into what consumers will pay for convenience products, which will provide the incentive for private companies such as licensed CAB Program processors to develop more end-meat products. For example, said Dolezal, needle-tenderized subprimals from the round are an option in a vertically cooperative industry. The overall goal is to add value at every licensing step, Corah concluded.