

## Value-Based Marketing: Current Status

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### Introduction

The concept of value-based marketing likely will be the livestock industry's greatest focal point for the remainder of the 20th Century. Livestock producers have been frustrated at the apparent lack of monetary differentiation among market animals with great variation in quality and carcass composition. No species seems to be immune from this problem: marketing cattle, sheep and hogs "on the average" is commonplace throughout the United States. What producers want is a true "value-based" marketing system where livestock are bought and sold on individual carcass merit. Carcass merit deals with evaluations of two different areas: (1) quality—marbling, maturity, etc.—and (b) composition—total lean, fat and bone, or lean with some acceptable level of external fatness, along with trimmable fat and bone. Without market differentiation, no real incentives are given for producers to purchase "better" breeding stock, for feeders to sort animals to better meet slaughter endpoints or not to overfeed, for packers to trim boxed beef, pork or lamb more closely rather than selling excess fat down the chain, and for retailers and purveyors to purchase products differently than in the past.

Although value-based marketing applies to all three livestock species, our overview will concentrate on beef because of the recently completed work of the Value-Based Marketing Task Force (1990). The beef industry found that something had to be done to ensure that value-based marketing was implemented in the near future. The Task Force was assembled under the combined auspices of the Beef Industry Council of the National Live Stock and Meat Board and the National Cattlemen's Association. Membership on the Task Force came from seed-stock and cow-calf producers, feeders, packers, purveyors and retailers. The Task Force met several times beginning in late 1989 and ending in mid-1990 to discuss problems with the current marketing system for beef and to arrive at an action plan for solving the problems associated with "average-based" marketing.

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In its report (Value-Based Marketing Task Force, 1990), the Task Force identified this clearly stated objective as its goal: "To improve production efficiency by reducing excess trimmable fat by 20% and increasing lean production by 6%, both by 1995, while maintaining the eating qualities of beef." The Task Force listed eight consensus points that serve as specific research areas or priorities to accomplish the stated objective of reducing excess trimmable fat and increasing lean production. Discussions of individual consensus points follow.

### Consensus Points to the Report

**Consensus Point 1: Communicating value to the retail industry is critical to reducing waste fat production.** In 1986, retailers across the United States began the "War on Fat" with the adoption of "1/4-inch (.64 cm) Trim Specifications" programs. This was the result of the major finding of the National Consumer Retail Beef Study (Cross et al., 1986; Savell et al., 1989) that closer trimming of retail cuts could result in an improved image for and sales of beef. The National Beef Market Basket Survey (Savell et al., 1991) found that: (a) the average fat thickness of retail cuts of beef was .28 cm, and (b) over 42% of beef cuts had no external fat. Retailers had responded to the clear message that for beef to be competitive in the marketplace, it had to have less trimmable fat than at any point in the past. The Task Force felt that the retail segment of the beef industry has done its part for beef; however, the rest of the industry is lagging far behind in reducing the amount of excess fat production.

The main factor identified by the Task Force for the lack of response by the rest of the industry was the lack of clear economic signals being sent from retailers back through the beef chain. It was felt that the retail segment did not have the information available that would show what the value of closely trimmed, higher cutability primals and subprimals should be worth. Therefore, conducting research to gather new cutability information or taking existing cutability information and disseminating it was considered a high priority to help everyone in the beef industry make more informed purchase decisions.

Five recommendations for information needs were listed in the Task Force report:

1. Carcass to primal cut. Called for developing cutability information from the carcass to the primal cut that reflects differences in cutting style, sex-class, breed-type and fat trim effects. This information is reported in Griffin (1989).

2. Primal to retail cut. Called for developing cutability or yield data from the primal to the subprimal to interface with the information obtained in Griffin (1988). The information

will reflect differences in trim level, cutting style, bone-in versus boneless, and other factors related to the yield of retail cuts from various subprimals. This information is now complete and is reported in Garrett et al. (1991).

3. Retail simulation. Called for a retail simulation study to determine all of the factors needed for a "value equation" of closer trimmed beef. A simulated backroom of a retail store was constructed in the Rosenthal Meat Science and Technology Center at Texas A&M. This backroom had cutting tables, bandsaws, wrapping machines and the other usual features found in a supermarket. In addition to using this facility to obtain cutting test information, trained meat cutters from the meat cutting school at the Texas State Technical Institute at Waco were used to obtain time and motion information on the possible labor savings that could accrue to retailers to cut closer trimmed subprimals compared to the regularly trimmed commodity products. The time and motion information is contained in the report by Garrett et al. (1991).

4. Develop user-friendly software. Called for developing user-friendly software to aid packers and retailers with making decisions regarding selling/purchasing closer trimmed beef. As a feature of the information gathered for Recommendations 2 and 3 above, a software program, called CARDS—computer assisted retail decision support—was developed by animal scientists and computer specialists at Texas A&M University (Walter et al., 1991). This software was released to the public at the National American Wholesale Grocers Association and National Grocers Association Meat Operations Meeting in Kansas City on September 30, 1991. The CARDS system allows comparisons among different purchasing options for commodity (up to 1-inch or 2.54 cm), ½-inch (1.27 cm) or ¼-inch (.64 cm) maximum external fat boxed beef cuts when cut into retail cuts with three different fat trim specifications—¼-inch (.64 cm), ⅛-inch (.32) or no external fat. Information generated by CARDS includes gross profit, net profit per hundred pounds (45.4 kg) cut, cutting yields and labor costs. The CARDS program is being distributed to interested parties at no cost to get the maximum use of the information by the different segments of the industry.

5. Develop communication workshops for the industry. Called for conducting workshops that would help in the dissemination of cutability information to the various segments of the beef industry. With the unveiling of the CARDS system at Kansas City in September, 1991, the dissemination phase of the packer-to-retailer cutability information has begun. It will consist of hands-on workshops, meetings, one-on-one visits, and other methods of information transfer. When the packer-to-retailer information transfer process has reached a saturation point, the feeder-to-packer interface will be concentrated on. It is important that the educational process occur at the interfaces between the various segments at the point nearest the consumer and work back from there. Attempts to work from the producer forward likely would be counterproductive without the other segments demanding new and improved products.

**Consensus Point 2: Closely-trimmed boxed beef should be an option in the marketplace.** This point is related to Consensus Point 1. With retail cuts having less than .32 cm fat, and with boxed beef, for the most part, coming into the backrooms of retail stores with up to 2.5 cm

of external fat, a tremendous amount of fat is being trimmed at retail that should be coming off before or should never be put on in the first place.

EXCEL Corporation introduced a line of closely-trimmed boxed beef soon after the "¼-inch trim specification" revolution hit in 1986 (Cross et al., 1986). This product was called "Perfect Trim," and it had a fat trim specification of 1.27 cm. EXCEL pulled the product from the market in 1990 because of slow sales. Retailers were willing to pay less for the commodity product and trim it themselves rather than paying the upcharge for Perfect Trim.

EXCEL also faced a problem in the marketplace because it had the only closely-trimmed product available from the major packers. Retailers faced the dilemma of comparing commodity prices to Perfect Trim prices, which could differ substantially based on the cut. Without competition to compare price against, most retailers stayed with commodity products. Unfortunately, the CARDS system was not developed in time to be used to compare yields and cutting times from commodity cuts and closer-trimmed cuts such as Perfect Trim.

By the summer of 1991, IBP and Monfort were offering their own versions of subprimal cuts trimmed to .64 cm or less. With at least two companies competing for the closer-trimmed subprimal market, retailers can price one packer against the other. Having a substantial market for closer-trimmed subprimals is important to cattle producers; without this market, there is no incentive for packers to purchase higher cutability cattle if up to 2.5 cm of fat on each cut can be sold for the same price as the lean.

**Consensus Point 3: The beef industry should develop packaging systems to meet marketing/merchandising demands.** The beef industry lags behind the poultry industry in the availability of case-ready retail products. The Task Force felt that with successful case-ready products, packers would be able to better define the types and qualities of the raw materials (fed cattle) necessary to fit their programs. A criticism of case-ready beef has been that when vacuum packaging is used as the packaging medium, the resulting color of beef in the deoxymyoglobin state is purple. Both poultry and pork, because of lower levels of myoglobin in the muscle, do not become as dark in color when oxygen is removed in the vacuum packaging process. Studies have shown that once consumers purchase and use case-ready beef, they are likely to purchase additional products; the problem lies in getting consumers to purchase the product the first time. Packaging technology thus appears to be an important constraint in successful case-ready programs for beef.

**Consensus Point 4: There is currently inadequate data to clearly understand and therefore respond to varying consumer demands for quality.** A big criticism of the beef industry is apparent lack of producing to specific targets. The beef industry generally attempts to sell what it produces rather than determine what the market wants and then adjust breeding and feeding programs to produce such. Most will agree that there is more than one market for beef. The National Consumer Retail Beef Study found that some consumers preferred Choice because of its taste characteristics while other consumers preferred Select because of its leanness. Today, markets exist for Prime, high and average

Choice (Certified Angus Beef, Monfort's Chef's Exclusive, EXCEL's Sterling Silver), Choice and Select. What the beef industry does not know is the size of these markets today and what will their size be in the short- and long-term.

Data are needed not only for large and small metropolitan markets, but for retail and foodservice sectors as well. Until more definitive information is available to tell the beef industry what it should be producing, there will be no real targets to aim for, resulting in the possibility of having vast under- or oversupplies of particular qualities of beef that may cause market prices to vary tremendously.

**Consensus Point 5: Changing quality and yield grade lines would reduce excess fat production, but may present risks to the market potential for beef.** For the past several decades, the USDA quality grades for beef have been changed (usually lowered) in an effort to reduce the amount of carcass fat produced associated with the minimum requirement for Choice. The last such change occurred in 1975 when, along with other changes, the marbling line for Choice within A maturity was flattened so that increasing maturity within A maturity did not require a corresponding increase in marbling. That change was controversial in that it did not actually go in place until 1976 until after the legal challenges to USDA were defeated. USDA attempted to further reduce the marbling requirements for Choice in the early 1980s; that proposal had solid backing from the National Cattlemen's Association, but was soundly defeated by groups and individuals further down the marketing chain. Attempting to change beef grades has moved from being a scientifically-based procedure to a highly charged political mudslinging battle.

There is some evidence that changing the marbling requirements for Choice from Small 00 to Slight 50 and moving the yield grade 4 line to the existing yield grade 3.5 line could result in a minor reduction in fat produced. James O. Sanders and Mark Thallman of the Department of Animal Science at Texas A&M University modeled these changes using existing information and predicted that there would be less excess fat produced under this proposed scenario. The Task Force considered this and recommended no change in existing grades at this moment because the political liability would be too great.

**Consensus Point 6: The beef industry should pursue research and development of an instrument for the assessment of carcass value.** Beef grading currently requires that carcasses be chilled and ribbed before the quality and yield grades are assessed. This one- or two-day delay between the time of slaughter and the time of evaluation for grading and the use of humans in grading are two of the factors involved in the reluctance of cattle feeders to trade "on-the-rail" (see Consensus Point 7). The need to chill carcasses before grade assignment limits packers' ability to adopt new technologies such as hot boning. The development of an instrument to accurately grade beef before chilling could alleviate these problems.

The Task Force recommended that the beef industry draft a master plan for the research and development of an instrument capable of evaluating carcass leanness, marbling and maturity. The Task Force stated that the proposed instrument should accomplish the following objectives:

1. The instrument must be able to predict percent-

- age or pounds of lean, marbling (or percent chemical fat) and maturity with a high degree of accuracy.

2. The instrument must have a high level of accuracy and precision (repeatability) on individual independent variables.

3. The instrument must be designed for slaughter rail application and be strategically located (perhaps before the hide is removed) so that the system does not prohibit the adoption of existing or new processing technologies by packers.

4. The instrument must be capable of evaluating all carcass traits and computing the dependent variables (percentage or pounds of lean, marbling and skeletal maturity) at projected industry production rates, realizing the possibility exists of having more than one instrument online.

5. The instrument must be able to withstand extremes in temperature (0° to 40°C) and humidity (up to 100%) without losing accuracy and precision.

6. The instrument must be tamper-proof, to prevent errors in assessment.

7. The precise recalibration of the instrument must be accomplished quickly and easily.

A request for proposals was issued by the National Cattlemen's Association on behalf of the Beef Board, and eight proposals were received. A research team from the University of Illinois was awarded the contract to begin developing an instrument centered on ultrasonics to achieve the above stated objectives. This is a long-term initiative that will likely take until the end of the century to accomplish all of the stated objectives.

**Consensus Point 7: Fed cattle should be valued on an individual carcass basis rather than an average live price.** Today, most cattle are sold to the packer on a lot basis. Cattle are accumulated from several sources, from different genetic backgrounds and ages, and are fed together with the hope that, on the average, the lot will sell for more money than the initial cost of the feeder cattle plus feed and the other associated expenses. Within most every lot, there are cattle that have significantly above-average cutability and quality while there are cattle that have significantly below-average cutability and quality. In short, the good ones compensate for the bad ones. In fact, there are premiums and discounts associated with this method of marketing cattle: cattle with inferior genetics that are under- or overfinished receive premiums while those with superior genetics that are correctly finished receive discounts compared to their actual worth.

One solution to the marketing of individual carcasses is for cattle producers to sell on a "grade and yield" basis. Unfortunately, many cattle feeders refer to this marketing option as "grade and steal." Although mistrust between buyer (packers) and sellers (feeders) is nothing new, moving the ownership transfer location from the feeder's turf (pen) to the packer's turf (cooler) is of major concern to feeders. Feeders, generally, do not understand packing operations, USDA quality and yield grades, chilling and ribbing conditions, etc. In addition, there have been some allegations that packers will not "fight" for grade placement (e.g., trying to move borderline Choice carcasses into the Choice grade) with the USDA graders on grade and yield carcasses with the same enthusiasm as they will for cattle purchased live. Also, the

issue of regrades, those carcasses that do not grade Choice on the initial pass through the grading stand, but are subsequently graded later on a regrade rail or when the carcasses are brought past the grading stand again, is a problem. Most feeders believe that the only Choice carcasses they will be paid for are those that are graded on the initial pass through the grading stand, not those graded as regrades. Until there is greater understanding or trust between feeders and packers, grade and yield selling will remain a limited marketing option.

**Consensus Point 8: The beef industry should conduct research aimed at clearly identifying the genetics of carcass merit.** For value-based marketing to be a success, making fundamental changes in the cow herd to reduce fat while maintaining quality is a must. Current sire evaluation programs provide limited carcass data. If cattle producers wished to select breeding stock for improved carcass merit today, it would be impossible to obtain enough information to do so.

The Task Force recommended that the beef industry prepare requests for proposals that would accomplish the following: (a) develop improved methods of identifying beef sires that express desirable traits for marbling and lean composition, and (b) identify genes (gene probes) that influence marbling, tenderness, muscling and fatness. Proposals have been awarded to research teams at the University of Georgia for the first project—carcass EPDs (expected progeny differences)—and Texas A&M University for the second project—gene probes. The Task Force recommended that

the research results from the two research projects be compiled into a data base from which carcass EPDs (or their equivalents) can be computed and included in National Sire Evaluation programs.

### Next Steps by Industry and Academia

The question that has to be asked by everyone is, are we winning the war on fat? Some major battles have been won, some important battles are being fought and other battles have yet to be waged. In the consumer's mind, because of the changes made at retail, beef, pork and lamb are better today than ever before. The remaining portions of the chain now have to do their parts to make the commitment to reduced fatness.

Obviously, the livestock and meat industries have their obligations to making value-based marketing a reality. We in academia have a role to play, too. Most of the Consensus Points serve as guides to the types of research needed to be conducted by those in research to answer important questions regarding value-based marketing. Educators and extension specialists have roles to play in disseminating information needed to improve the genetics, feeding and management, grading and identification, and fabrication and marketing of leaner livestock and meat products. Let's hope that the remaining portion of the 1990s serves as a springboard to a viable value-based marketing system for the next century.

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