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VALUE BASED MARKETING OF BEEF -- A PACKER PERSPECTIVE

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Value based marketing as a concept has been intensely discussed for at least three decades. Yet today, only an estimated 15% to 20% of cattle are bought using carcass evaluation. The remainder are bought based on estimates of the live cattle and projected quality grade, yield grade and dressing yield. The carcass value systems in existence today recognize carcass weight, whole yield grade and whole quality grade based on USDA grader classification of quality and whole yield grade. To some extent, all beef are bought using some estimate of value. What we lack is more refined methods to determine value. More refined value based marketing systems logically have merit. I will try to identify and examine the obstacles which have and are preventing a broader adaptation of more refined value based marketing systems.

The first and most obvious obstacle is how can value be determined and how can it be consistently applied from plant to plant and day to day. USDA quality grade will influence value as long as there are grades and differential demands and supplies. Although consistency of application can always be questioned, no new technology has emerged to replace USDA visual categorization of maturity, lean color and marbling. Although not perfect, we can live with this element to determine quality grade. Debating the role and necessity of quality grades is beyond the scope of this discussion.

Of a more critical nature in determining value is a commercially available method to accurately predict total saleable value of the carcass. Some people simplistically think we can use electronic identification to relate each individual subprimal and piece of trimming back to the originating carcass and, therefore, use absolute cut out. This sounds simple on paper, but consider the potential of identifying and tracking over 30 subprimals per carcass side. This equals 60 subprimal parts per head. To track one hour's production would require the attachment and removal of 21,000 electronic identification devices per hour for a 350 head per hour break floor. Furthermore, this process would not account for extra lean, lean or fat trimmings which comprise 25% of the weight. This is not a realistic approach. Additionally, part of the value determination back to the producers is predicated on boning and trimming performance which does vary from plant to plant and day to day.

Eliminating subprimal tracking as an option leaves us with only one option, the use of regression analysis to predict total saleable cuts on a pound or percent to the carcass basis or total value using readily available independent variables. This takes us back to yield grades. Believe it or not, the current beef yield grades do a fairly good job of predicting total value of a beef carcass when used to the tenth of a yield grade and when a carcass sex adjustment and a breed factor for Holsteins are factored in. Keep in mind, I said fairly good job -- total value, not total percent lean or percent saleable subprimals and yield grade to the tenth.

This leaves only two major obstacles to its use. First, there is no commercially available system to apply yield grades to the tenth of a yield grade. We simply need fat thickness and rib eye area with weight and an estimate of kidney fat. We could simplify kidney, heart and pelvic fat by simply removing it on the kill floor and eliminating its influence on total value and the need to estimate it. Or we can simply break it even and live with the lost precision of accounting for it as a variable. Video Image Analysis Technology has been around for nearly 20 years. With higher speed computers and improved optics, it appears to be a viable system to simply determine fat thickness and rib eye area. Commercial units are being evaluated and will hopefully be available in the near future. This could solve one of the problems. The second obstacle is the regression equation. When a dependent variable of closely trimmed, boneless, seam fat out subprimals is used with fat, bone, and maximum upgrade trimmings to determine total value, 80% of the variation can be accounted for with yield grade as measured to the tenth. Now the bad news, the standard error of the estimate is about $20 per head. The difference between a yield grade 2.1 and 3.1 was about $40 per head, or $4 per tenth of yield grade. This may still be acceptable provided the relative accuracy of the equation is taken into account in a value based system.

It is important to understand the dependent variable, total value when the carcass is converted to one quarter inch or denuded subprimals with seam fat removed plus all associated trimmings and the value of fat and bone. Not all beef subprimals produced fit this category. In fact, only 30 to 50% of any subprimal group fits this category. The industry still sells one inch maximum fat subprimals. When this dependent variable is used, predictability drops and differences between yield grades are substantially reduced. With fat-on subprimals, there is a very curve linear relationship between yield grade and total value. This is understandable as a percentage of fat is sold at subprimal prices. Therefore, there is minimal difference between a yield grade 2.75 and 3.25 in total value.

The point is simple, total value can be reasonably predicted using defatted, boneless subprimals as the basis for total value and calculating yield grade to the tenth. What we need to go forward is simply the ability to measure fat thickness and rib eye area to plus or minus .05 inches and .5 square inches, respectively, and assume defatted subprimals represent the norm. Improved technology must provide the ability to determine yield grade to the tenth at 400 plus head per hour or value based marketing will not have a chance. Assuming this objective is met, we (the packer and cattlefeeder) must decide if the standard error of these prediction equations are an acceptable risk and improvement relative to the current processes.

Once a mechanism to determine value to an acceptable tolerance is resolved, the next obstacle to overcome is confidence in the system. Both the packer and feeder will need to have faith in the system. If a median is established and the system is based on premiums and discounts, how will the median be established? Other than the National Beef Quality Audits every three to five years, no one can really determine what the average carcass or median carcass characteristics are. A whole yield grade does not reflect the average or median composition. If a median with premiums and discounts for yield grade is established, how often will they change? They certainly cannot remain static with dynamic prices for various subprimals and trimmings. Before we can even make this decision, we need to know what the population, when measured to the tenth of a yield grade, really looks like.

Let's assume a system is developed. We can predict total value based on cut out holding quality grade constant. We now build an adjustment for quality grade. We now include an adjustment for carcass weight. We have to deal with differential prices for like subprimals of different carcass weights. We will have to adjust for carcass sex and we will have to adjust for special breed considerations, like Holstein beef. We are getting closer to determining total value of the carcass. Do we stop there or do we begin to account for differences in drop value?

Total value means more than the carcass and its associated cut out. Do native hides versus butt brands versus collie brands come into play? What about pathological condemnation of livers, hearts, heads, tongues and intestines? What about bruises, grubs and abscesses? All these affect value.

KISS, Keep It Simple Stupid. You can't account for everything. Not all factors which influence value are in the control of the feeder. Where do we start and stop? What can we control or influence and what can't we control or influence? How much risk do we take? Who takes what risk? Before we move toward answering these questions, we must at least have the ability to account for gross differences in total value relative to defatted subprimal yields. The first hurdle has escaped the industry for decades. We need the ability to cross that hurdle.

We have one last obstacle to overcome, assuming we build a system that has sufficient accuracy and the confidence of both the packer and feeder. The last obstacle is reality. A percentage of feeders use a portion of value based marketing today. That is yield grade to the whole and quality grade on a carcass weight basis. The same percentage will quickly evaluate their feeding and selection to maximize their return to a new system, but a percentage of feeders will not want to market basis a value based formula. A percentage will continue to want one bid price for the entire show list. A percentage will not want to take the risk and prefer a bid-ask based on the live weight leaving the lot, no more risk.

It is not a perfect world nor will it ever be. Not all cattle will be bought and sold on a value based system. Risk is part of the business. Both the feeder and packer have risks in the process of growing and manufacturing beef. Someone will assume more or less of the risk. This mentality is not wrong; it is just part of the business.

In summary, value based marketing for beef will evolve rapidly as technology provides a system to predict, with some confidence, total value of the carcass. We must have this ability before we can progress to the next step. I believe it is close at hand. Not all value differentials are reflected with carcass value. Some risks in total value will be shared by the packer and feeder as systems develop. We will likely see various forms of value based marketing , depending upon how much risk either party is willing to assume and share. The future will be like the present with varying degrees of value based marketing. It is unlikely one system will fit all parties business style.