Understanding Grid Marketing:
How Quality Grades and Grid Conditions Affect Carcass Value

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Introduction

Are cattle a commodity or a branded product? Since "sight unseen" price quotes are readily available for both feeder cattle and fed cattle, the cattle industry fits the definition of a commodity industry. But some cattle bring a lot more (or less) than the quoted prices. Within this vast commodity industry, some producers are establishing a brand for what they are producing, both feeder cattle and fed cattle. The real question is this: "Are your cattle a commodity or a branded product?" Key elements of a brand include consistency and predictability. If your cattle are superior to average cattle, and that superiority is consistent and predictable, you have the makings of a premium brand and, like Mercedes-Benz®, Apple® or Rolex®, you ought to get paid for that superiority.

Producing good cattle is just the start. Once you have created extra value, you have to find a way to capture that value. Grid marketing of fed cattle is one way to get paid a premium for producing something that is superior to the average.

Grid marketing can be complex, and it seems a little mysterious and risky to some, especially feeder cattle producers that are new to retained ownership or only market cattle once or twice a year. Understanding how grids work and how your cattle will perform on the rail are the keys to success with grid marketing of fed cattle

One of the key elements to understand is the Choice-Select spread because it affects many of the premiums and discounts in any grid. USDA publishes Choice-Select spread data every business day, based on reported sales of primal cuts (see TABLE 1).

TABLE 1: Choice-Select Spread Data for February 15, 2012

Source:www.ams.usda.gov/mnreports/lm_xb403.txt

		600-900 lb. Carcass	
	Choice	Select	C-S Spread
Current cutout values, $/cwt	189.38	184.27	5.11
Primal cut values, $/cwt			
Rib	268.22	260.23	7.99
Chuck	156.92	156.12	0.80
Round	166.11	166.26	-0.15
Loin	257.75	237.80	19.95
Brisket	141.22	141.06	0.16
Short plate	138.91	142.31	-3.40
Flank	113.18	112.88	0.30

On February 15, 2012, the reported spread was $5.11/cwt. As you can see, each primal cut had its own Choice-Select spread, ranging from a high of $19.95 for the loin, to -$3.40 for the short plate, meaning that Select short plates (and rounds) were actually worth more per cwt than Choice.

It is true to say that the Choice-Select spread reflects supply and demand but that oversimplifies things a bit since it is really the supply of, and demand for, each individual primal, and their proportion in the trade, that determines the spread. But even that is too simple. Both Choice and Select cuts have their own supply and demand factors. As an example, the spread dropped rapidly in early 2012 (see Chart), not because demand for Choice meat declined but because demand for Select was stronger, supporting very high cattle prices during this time.

In 2011, a particularly volatile year, the spread ranged from near $0 to more than $18/cwt. While that spread followed the normal seasonal pattern in 2011, the seasonality was exaggerated. Examples of the factors that drive seasonality include:

- Supply factors
- Higher grading cattle during winter months
- Lighter carcass weights during spring
- Shorter slaughter numbers in late summer
- Demand factors
- High demand during grilling season
- Holiday consumption of higher end product

Non-seasonal influences include the economy, export demand, etc. A huge non-seasonal factor in 2011 was Wal-Mart's decision to carry Choice beef at all of its stores. This was at least partly responsible for the big run-up in the spread late in 2011.

How much does the Choice-Select spread influence the value of individual cattle? As the spread moves higher, the difference between the value of a Choice carcass and a Select carcass becomes greater. A simple comparison (TABLE 2) shows that the difference between the value of an 800-lb. Choice carcass and an 800-lb. Select carcass will be $160 if the spread reaches $20/cwt.

TABLE 2: Value Difference in 800 lb. Carcass

Choice-Select Spread, $/cwt	Impact, $ per 800 lb Carcass
2.00	16.00
4.00	32.00
6.00	48.00
8.00	64.00
10.00	80.00
12.00	96.00
14.00	112.00
16.00	128.00
18.00	144.00
20.00	160.00

With grid pricing, what looks like simple math is often not so simple. Understanding grid pricing at the next level requires mastery of two additional considerations. The first of these is the percentage Choice requirement of the grid. Often called the Choice base, this is the percentage Choice required to get par value.

Each grid will publish its Choice base in the grid terms and conditions. Sometimes the Choice base is a fixed number, like 60%; more often it is a moving target, like a plant average. Either way, as the hurdle required for par moves higher, all cattle are worth less money because premiums are generated not by the absolute number of Choice cattle, but by the amount by which your cattle clear the hurdle set by the grid.

To illustrate the effect (TABLE 3), if the Choice requirement for a particular grid is the previous week's average percentage Choice for the plant, it could vary by 10 to 20 percentage points during a year. Suppose in the current week the base is 50% and you sell a set of cattle that grade exactly that. In that case you will meet the threshold and get the average price, in this example $180/cwt. At a different time of year, with a plant average of 60% and a Choice-Select spread of $12/cwt, those same cattle would fall below the threshold and receive only $178.80.

All cattle are worth more with a low Choice requirement, whether they grade above or below the base required. The differences are exaggerated by a wide Choice-Select spread and lessened by a narrow spread. This is a key number to study when evaluating any grid. The math can be kind of tricky but you need to learn to get it right. If you would like to study this in more depth,
email pete@agknowledgeservices.com for more details.

TABLE 3: The Effect of Choice Requirement (base) on the Value of a Group of Cattle

Carcass Price, $/cwt	**$180.00**				
Choice-Select Spread, $/cwt	**$12.00**				
Value of a Set of Cattle that Grade...					
Choice requirement	**40% Choice**	**50% Choice**	**60% Choice**	**70% Choice**	**80% Choice**
50%	**$178.80**	**$180.00**	**$181.20**	**$182.40**	**$183.60**
60%	**$177.60**	**$178.80**	**$180.00**	**$181.20**	**$182.40**
70%	**$176.40**	**$177.60**	**$178.80**	**$180.00**	**$181.20**

If you know what your cattle will grade, understand the Choice-Select spread and have figured out the base percentage-Choice required, you have come a long way toward understanding grids. But there are still more key considerations.

Everything discussed so far is based on cattle grading either Choice or Select but there are other, less common quality grades to consider. Premium and discount quality grades or categories add another layer of complexity (and opportunity). Cattle that grade USDA Prime or qualify for *Certified Angus Beef*® (CAB®) or other branded premiums receive premium prices, and those can be substantial.

CAB® premiums, added to the Choice price, can apply to a large percentage of the carcasses from a set of high-genetic-capability cattle, thus really increasing value of the group (see TABLE 4).

TABLE 4: *Certified Angus Beef* ® Brand

Added Value Per Head as Percentage CAB® Increases
Based on 800-lb. Carcass Weight

	CAB® Premium/cwt		
Percentage CAB®	**$2.00**	**$4.00**	**$6.00**
20%	$3.20	$6.40	$9.60
40%	$6.40	$12.80	$19.20
60%	$9.60	$19.20	$28.80

Prime grade carcasses (TABLE 5) are much less common than CAB® or Choice but the premiums are often quite large. Just like the Choice-Select spread, there is a Prime-Choice spread, too. Since Prime accounts for less than 2% of all U.S. beef and the market is thinly traded, most Prime premiums are fixed numbers, rather than a spread that moves from week to week. The Prime premium is often much higher than the Choice-Select spread. Prime grade carcasses can receive premiums as high as $20/cwt—and those are above the Choice price, not above the average price. With a wide Choice-Select spread and a high Prime premium, individual carcasses that grade Prime are often valued at $300 to $400 above the market.

TABLE 5: USDA Prime

Added Value Per Head For Pen as Percentage Prime Increases
Based on 800-lb. Carcass Weight

	Prime Premium/cwt		
Percentage Prime	**$10.00**	**$15.00**	**$20.00**
10%	$8.00	$12.00	$16.00
20%	$16.00	$24.00	$32.00
30%	$32.00	$36.00	$48.00

There are also heavily discounted quality grades, like USDA Standard, that can be a problem in sets of very low grading cattle. Cattle that grade Standard have almost no marbling and may provide an unsatisfactory eating experience. That is why they are discounted. Generally, as the percentage Choice increases, discounted quality grades are lessened and premium grades increase. TABLE 6 shows how low- or high-grading cattle could compare in both premium and discount categories and the impact that can have on the value of the cattle.

Note that in the Table 6 example, a set of cattle grading 50% Choice would bring near market price. With these grid conditions, lower grading cattle would be discounted and higher grading cattle would be worth substantially more. More than quality grade affects grid marketing—yield grades, weight requirements, dark cutters and other factors can create substantial premiums or discounts. But those are topics for other discussions.

Meanwhile, one of the more popular options to increase revenue involves retaining ownership of the calf crop (or some portion thereof) through the feedyard. The strategy has allowed many operations to benefit from both genetic and management inputs at the ranch. Nearly 20% of cow-calf producers (*BEEF, 2010*) and one-third of stocker operators (*BEEF, 2007*) indicate retained ownership as an important component of the marketing program.

TABLE 6: Premium and Discount Grades

Example Relationship, Assumes All Black-hided

$12 Choice-Select Spread
50% Choice Requirement
$4/cwt CAB® Premium
$16/cwt Prime Premium
$12 Discount QG Penalty

Choice or Greater	Discount QG	CAB®	Prime	Quality Premium ($/cwt)
15%	20%	1.5%	0.1%	-6.52
25%	12%	3.5%	0.2%	-4.27
35%	7%	6.3%	0.3%	-2.36
45%	4%	9.9%	0.6%	-0.63
55%	3%	14.3%	1.0%	1.03
65%	2%	19.5%	1.9%	2.70
75%	1%	25.5%	3.4%	4.45
85%	1%	32.3%	6.1%	6.40
95%	0%	39.9%	11.0%	8.72

Summary: It is not enough to create cattle with high value. You need to find a way to capture that value and put it in your pocket. Grid marketing can be one means of doing that, with cattle that have a high genetic capability for marbling. In grid marketing, both risk and opportunity are passed from the packer to the seller of the cattle, so you need both the right kind of cattle and the right knowledge to succeed.

Here are the key points to remember:

- Producers with excellent cattle can capture added value by marketing on grids. However, before selling on a grid, it is critical to know what to expect from your cattle and understand how grid conditions will affect their value.

- A grid is a system to individually price cattle based on their merit. That means some cattle are worth more than the market and some are worth less.

- No grid is ideal for all types of cattle and no cattle are ideal for all grids. Know what you have and find the best way to capture value.

- The Choice-Select spread is a key factor in determining the price of cattle sold on a grid. A wide spread increases the value of high-grading cattle but also increases the risk if cattle grade poorly.

- Added premiums for *Certified Angus Beef®* or Prime grade cattle can be substantial.

- The economic impact of some specific grid conditions can be substantial. Do the math to understand how your revenues will be affected. You want to understand the transaction as well as do the people on the other side of the table