

Yield Grade and Dressing Percent

Commentary by **Paul Dykstra**

Quality grade is the big driver in marketing cattle on a grid. We all know that the consumer will pay more for well-marbled beef. That's why there's often a wide price spread between cattle that grade USDA Choice vs. those that grade Select, the first step in creating premiums at most packing plants. Upper Choice, Prime and certain branded beef labels command further premiums, but there's more to grid marketing than marbling.

Let's take a closer look at a couple of other factors that play key roles in grid formulas.

Yield grade and dressing percentage are two terms that are often misused and mistakenly interchanged. They are both measures of product yield from the animal, but they refer to different aspects and must be considered separately.

While quality grade drives premiums, failures in these two yield categories rob from the grid's bottom line.

Abbreviated "YG" when used with a number, yield grade estimates the amount of boneless, closely trimmed retail product that will be "yielded" from a carcass once it's fabricated. In the simplest terms, it measures the difference in a carcass's red-meat yield vs. external fat that will have to be trimmed.

USDA graders use a numbering system to define these differences, with YG 1 being the leanest score and YG 5 the fattest. The scale is based on four factors, including back fat, ribeye area, carcass weight, and kidney, pelvic and heart (KPH) fat.

Yield grade has become the burr under the saddle for producers trying to capture more dollars through grid marketing. The National Beef Quality Audit (NBQA) shows that in 2000, the average ratio of YG 4 carcasses in the U.S. was 4.3%, a number that the U.S. Department of Agriculture (USDA) says climbed to 9% in 2006. Let's look at why the percentage more than doubled in a few years.

The most notable factor during 2004 through most of 2006 was the low price of corn relative to the high price of cattle. Feedlots felt economic pressure to feed cattle longer to heavier out-weights with thicker back fat. Plugged into the formula, that meant more undesirable YG 4 carcasses. However, the recently higher, ethanol-driven corn market could reverse this trend to some extent, because it costs more to put on those last pounds.

Balancing act

Table 1 shows USDA's reported average premiums and discounts for all five yield

grade categories for 2006. This is based on a weighted average, so the packer purchasing the most cattle on grids has the most effect on the figures in this report.

Applying the premiums and discounts to an 800-pound (lb.) carcass weight shows the net effect on a per-head basis. The net effect is different on a few grids that factor in plant averages, which is more common in figuring quality grade premiums.

Discounts for cattle that are too fat are much more significant than the premiums for the leaner YG 1s and 2s. Therefore, the goal is to avoid feeding cattle to a point where a large number of YG 4s and 5s show up in the mix. That may sound easy, but there's a fragile balance between feeding cattle a high-energy diet to their optimum quality grade and the tipping point of too much external fat. Achieving that balance means maximizing grid returns and getting the most out of carcass traits.

Many feedlot operators use the reported level of YG 4s as an indicator to show when a pen of cattle has been fed long enough. This strategy squeezes the highest level of quality grade from the cattle right up to, and hopefully not beyond, the tipping point where yield grade becomes problematic.

It's hard to refute this thinking and even harder to achieve maximum quality grade with no YG 4s — virtually impossible without sorting a pen of cattle into two or more harvest groups that will ship at different times. Sorting cattle for grid marketing has become popular as a way to increase net returns by harvesting a higher percentage of cattle at their optimum finish date and weight.

Dressing percent: an important role

People often confuse dressing percent with yield grade, because it is another measure of yield. However, it's a much simpler concept, derived by dividing the hot carcass weight (HCW) by liveweight multiplied by 100. Muscle, bone and fat are all part of a hanging carcass, so, unlike yield grade, dressing percent is not a measure of

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Table 1: 2006 USDA reported avg. YG premiums/discounts

Yield Grade	Premium or discount per cwt.	Net per head on an 800-lb. carcass
1	+\$4.28	+\$34.24
2	+\$2.00	+\$16.00
3	-\$0.00	Par
4	-\$15.53	-\$121.24
5	-\$22.41	-\$179.28

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leanness. In fact, fat helps dressing percent since it adds weight to the carcass.

For beef cattle, dressing percentages around 62%-63% are considered average, but the figures are influenced by four main factors. The first two, muscle and fat, affect the weight of the carcass once the hide, head and viscera are removed. The more muscle and fat, the higher dressing percent — which is favorable to a grid marketer. The other two factors, mud on the hide (often called “tag”) and gut fill, are removed before the hot carcass weight is measured. Therefore, increased levels of mud and gut fill are negative to dressing percent.

It may seem that dressing percent is the packer’s concern rather than the producer’s, but it is a significant piece of the puzzle when selling cattle on a grid. Since the seller

is being paid on carcass value, the check is being written based on hot carcass weight instead of live weight.

A 1% change in dressing percent on a 1,300-lb. steer represents a 13-lb. change in saleable carcass weight. On a \$94-per-hundredweight (cwt.) fed-cattle market, that’s \$12.22 change in the net return for that steer. That’s why this measure of “yield” plays an important part in the net return equation.

If a pen of cattle has a poor dressing percent, it could mean the seller left money on the table as compared to selling live. On the other hand, higher dressing cattle

have an advantage. It’s a shift of risk from the packer to the producer. However, the other price determinants in a grid can make up for a dressing percent that is less than ideal.

With genetic selection for optimum muscling — and finishing cattle to the

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proper fat content — we can almost guarantee acceptable dressing percentages. Plus, it must be noted that selling live cattle at the feedlot typically includes a “pencil shrink” of about 4% to adjust for estimated pounds lost between the scale at the feedlot and the hot carcass scale at the packing plant. It takes some experience and a bit of educated guessing to decide which selling method offers the best opportunity for profit.

As with anything in production agriculture, selling cattle profitably on a grid is mostly a matter of avoiding big wrecks that show up in the form of discounts. Data collection and informed management decisions provide the best safety net on the bottom side while building toward the loftier goal of significant premiums over the commodity market.

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Editor’s Note: *This is the second in a two-part commentary focusing on grid marketing. Dykstra’s first article, “Grid Marketing: Establishing the Target Through Quality Grade,” appeared in the April 2007 Angus Journal.*