Quick Quality Grade Hike

What's behind the sudden upward trend?

Story by
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How quickly the beef quality quandary changed. Just three years ago, we pondered a 30-year decline in quality grades. Barely half of fed cattle graded Choice in 2005, a scarcity that supported a record Choice/Select spread of $15.35 per hundredweight (cwt.) for 2006.


Larry Corah

Then, as if shaking off the depression, grades headed higher. For the first half of 2006, the ratio of Choice cattle edged up to average 51.7%; by July 2007, another percentage-point jump in the Choice share foreshadowed greater movement.

After decades in the doldrums, a marked change hit quality grades in late 2007 (see Fig. 1). By July 2009, 60.1% of federally graded cattle for the year had graded Choice. It was a 7.5-percentage-point shift in only two years. Why? (See white paper at *www.CABpartners.com/news/research*).

First, let's better understand where and how much. Although most packers show increases, the biggest were for cattle harvested in Kansas and Nebraska plants. In those two years, percent Choice shot up 13.6 points in Kansas and 10.2 in Nebraska, compared to just 3.9 in Texas plants.

Zooming in on Kansas-harvested cattle in early 2008 (see Fig. 2), the Choice share increased by 9.6 percentage points in a year. For all of 2008, the average weekly Choice grade in Kansas increased 8.4 percentage points over 2007. As a second wave in early 2009, the national share of Choice cattle jumped another 3.5 percentage points and spiked to 63.2% Choice one week in late February, unheard of since the early 1990s. Nebraska and Kansas have led 2009, increasing Choice by 6.6 and 4 percentage points, respectively, while Texas stabilized.

The 15.5% increase in Choice supply was only about half of the hike in Prime beef, running at 2.9% in 2009. The acceptance rate for the *Certified Angus Beef*® (CAB®) brand, after a low in 2006 of 14%, will beat 19.5% for fiscal 2009, nearly a 40% increase in three years. No more than 1.8 points of that increase can be linked to the January 2007 CAB specifications adjustment.

These trends are remarkable, especially considering economic conditions in feeding that led to aggressive use of growth implants and repartitioning agents now used by nearly half of all feedlots. While beta-I agonists are benign, the beta-II agonists can reduce marbling by 10 to 40 units.


Mark McCully

That may not seem like much, but a disproportionate share of cattle have marbling scores close to each grading line. Research shows that moving from Slight^{80} to Small^{0} results in a change of 5.71% more cattle grading Choice. Higher up the ladder, a 20-unit change results in 7.35% more premium Choice or CAB (see Fig. 3).

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Other factors

The epicenter of this grading tsunami is the Central Plains, so let's look at what else is going on there. Distillers' byproducts had figured their way into 82.5% of rations at 16.5% of dry matter (DM) by 2007. When that ingredient proliferated a few years ago, studies showed a negative effect on quality grade.

More research confirmed that finding only at greater than 40% DM, and uncovered a positive counter-effect. Feeding distillers' byproducts at 20%-30% DM resulted in 14 to 15 percentage points more Choice grades in a recent study. Other recent work showed these byproducts stimulate up to one-third more starter-ration intake, partially associated with how often cattle eat. Put it all together, and the once-suspect byproducts may account for most of the uptrend in Choice-grading cattle.

Higher DM intake, better calf health and higher daily gains support higher quality grades. Moreover, herd liquidation has boosted the heifer share of the harvest mix, its current 37.4% being 2 or 3 percentage points above normal. Heifers often grade 9 to 10 percentage points better than steers.

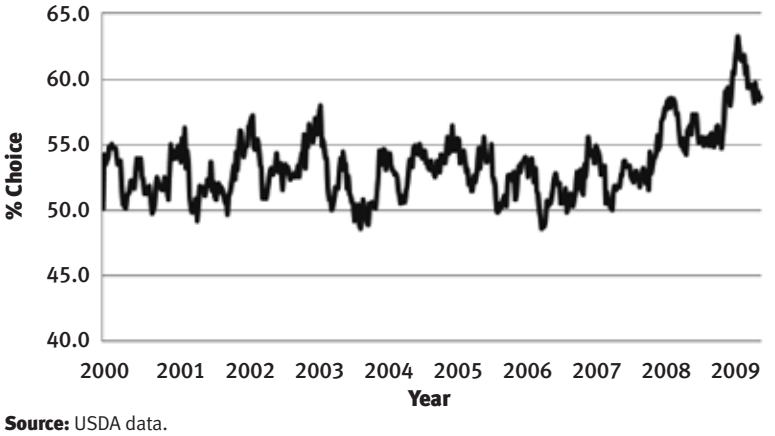
The genetic tie

Positive genetic change can lift old limits on quality grade. The marbling expected progeny difference (EPD) for Angus bulls has moved up 7 points since 2004. It only moved up 9 points in the first 25 years of EPD existence, then up 15 points in the last 12 years, representing a 15-point increase in progeny marbling scores. The past decade has seen a steady increase in the relative share of Angus bull use, too, from 39% of all bulls in 1995 to 55% in 2008, and nearly 70% of commercial cows are now called "primarily Angus."

Iowa futurity data show only 52.7% of calves with less than 25% Angus genetics graded Choice. Those with 75% or more Angus genetics went 86.2% Choice and Prime. The CAB acceptance rate nearly quadruples with greater Angus heritage. That may explain why the share of cattle with black hides has increased to 60% from its 48% when the U.S. Department of Agriculture (USDA) began reporting it in 2000. From then through 2007, there was a 1-percentage-point annual increase in black-hided cattle, but since 2007 that increase has been 2.5 percentage points per year. The change is most pronounced in the Central Plains.

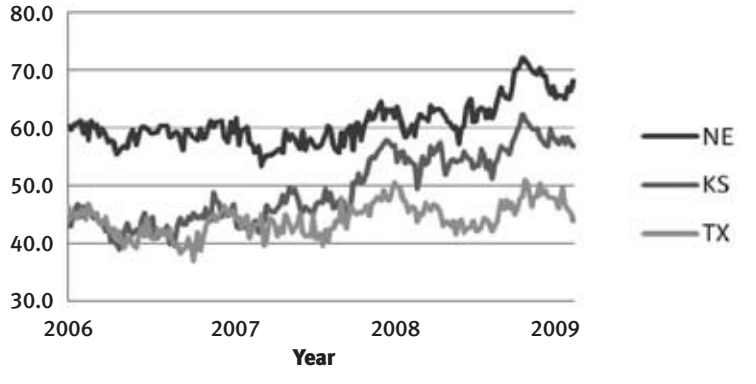
A few factors are often noted, but their true effects are unknown. The most popular explanation is a purported change in the marbling level that USDA graders now accept as Choice. Instrument-grading

Fig. 1: Weekly % USDA Choice



Source: USDA data.

Fig. 2: Weekly % Choice, by state

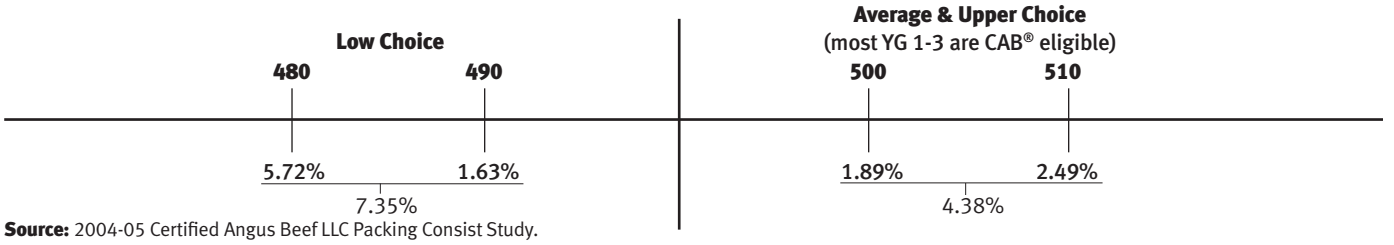


Source: USDA data.

camera data collected by packers refute that, leaving the mystery of a Kansas 9.6-percentage-point Choice boost in the first half of 2008, triple the increase anywhere else.

Compositional end point is another ambiguous item. Older, heavier, fatter cattle should grade better, but from 2006 to 2008, USDA data show leaner yield grades. Feeding conditions have been excellent for most of the Plains, and perhaps the heavier, increasingly Angus-influenced cattle have been allowed to express more of their marbling potential.

Fig. 3: Percentage of carcasses falling near the Choice-CAB® breakpoint



Source: 2004-05 Certified Angus Beef LLC Packing Consist Study.

Quality grade future trends

Eight meat scientists contributed to the white paper, "Quality Grade: What is driving the recent upswing?" which can be found at *www.CABpartners.com/news/research*. They conclude that quality grades may decline somewhat, but identified factors will keep the Choice and Prime levels above the 2006 mark. Here are the factors involved:

The Positives

Genetics – Angus will continue as the favorite, with 70% black-hided cattle by 2015.

Early marbling differentiation is a new area of study that can guide supportive intervention.

Extensive use of distillers' grains will continue but generally at less than 40% DM.

For the short term, corn prices favor current feeding programs.

The Negatives

Corn prices long term may pose a challenge.

Percentage of heifers in the mix will decline.

Positive feeding conditions may not persist.

Flat economic premiums for quality cattle do not encourage a focus on marbling.

Continued aggressive use of growth technologies may sidetrack genetic potential.

The Unknown

Instrument grading may have an effect on percentages of quality grades in the consist.

Bottom Line – If quality grades do not decline within a year, it could mean the infusion of higher-marbling genetics has had a lasting effect. Coupled with the smaller cattle number, consumer demand in a recovering economy will likely drive the Choice-Select spread to higher levels.