

When the Spread Narrows

Quality is still the largest contributor toward earning a premium.

by *Steve Suther*

When the Choice-Select spread price difference narrows, it's not a market signal to rethink genetics and management or to aim for Yield Grade (YG) 1 and 2 premiums. Demand for Choice, Prime and for the *Certified Angus Beef*® (CAB®) brand remains stronger than that for Select, commodity beef. The U.S. cattle industry is set up to make more profit from higher-quality cattle, and it's partly because higher-grading cattle tend to be heavier.

The market signals keep flashing on the need for still more high-quality beef. Brian Bertelsen, vice president of field operations for U.S. Premium Beef LLC (USPB), provided analysis of data from cattle harvested on the USPB Base grid during its fiscal year (FY) 2010. He sorted the data into seven groups based on percent CAB (see Table 1).

Cattle in the lowest CAB category earned premiums for leaner yield grades, but the

net effect was only \$1.19 per head. However, those same cattle also had a quality grade (QG) discount of -\$4.29 per head.

On average, all of the USPB cattle returned a \$19.02-per-head quality grade premium against a -\$3.17-per-head yield grade discount. Every single year of USPB's history, quality grade premium has been the largest contributor to overall premium. Even during years when Choice-Select spreads

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Table 1: Analysis of data from cattle harvested on the USPB Base grid in FY 2010

| USPB, FY 2010 Base grid only | ALL lots | Sorted by % CAB | | | | | | |
|--------------------------------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | ALL USPB | < 5% CAB | 5-15% CAB | 15-25% CAB | 25-35% CAB | 35-45% CAB | 45-55% CAB |
| In wt., lb. ^a | 724 | 727 | 717 | 722 | 737 | 732 | 727 | 709 |
| Days on feed ^a | 160 | 162 | 162 | 158 | 156 | 160 | 163 | 168 |
| % black-hided, by head | 73.80 | 37.38 | 65.92 | 76.68 | 85.50 | 89.66 | 93.37 | 94.87 |
| Live wt., lb. | 1,258 | 1,251 | 1,251 | 1,254 | 1,269 | 1,266 | 1,276 | 1,276 |
| Carcass wt., lb. | 805 | 803 | 802 | 801 | 810 | 807 | 813 | 812 |
| Carcass yield, % | 63.95 | 64.22 | 64.08 | 63.93 | 63.82 | 63.78 | 63.70 | 63.60 |
| Yield difference, % | 0.47 | 0.75 | 0.61 | 0.44 | 0.37 | 0.29 | 0.23 | 0.10 |
| Prime, % | 3.84 | 0.84 | 1.51 | 3.32 | 5.67 | 7.67 | 8.94 | 9.44 |
| Ch & Pr, % | 74.04 | 53.26 | 63.15 | 75.41 | 84.03 | 89.85 | 93.43 | 96.49 |
| CAB, % | 21.63 | 2.16 | 10.35 | 19.60 | 29.74 | 39.40 | 49.36 | 61.83 |
| CAB cert. rate, % | 29.09 | 5.77 | 15.69 | 25.56 | 34.78 | 43.95 | 52.86 | 65.17 |
| BCPR, % | 11.87 | 4.12 | 9.86 | 13.01 | 15.08 | 15.50 | 14.90 | 12.49 |
| BCPR cert. rate, % | 11.83 | 11.03 | 14.95 | 16.96 | 17.64 | 17.29 | 15.96 | 13.17 |
| Ungraded, % by wt. | 2.00 | 4.00 | 2.94 | 1.79 | 1.10 | 0.67 | 0.39 | 0.20 |
| Hard bones, % by wt. | 0.66 | 1.33 | 0.81 | 0.66 | 0.45 | 0.36 | 0.12 | 0.08 |
| Over 30 month, % by wt. | 1.73 | 4.22 | 2.27 | 1.44 | 1.19 | 0.57 | 0.29 | 0.25 |
| Dark cutter, % by head | 0.71 | 1.00 | 1.00 | 0.70 | 0.51 | 0.35 | 0.21 | 0.12 |
| YG 1, % | 10.07 | 20.59 | 14.38 | 8.86 | 5.84 | 3.59 | 2.39 | 1.66 |
| YG 2, % | 39.15 | 46.29 | 43.56 | 39.52 | 35.78 | 32.62 | 29.35 | 26.51 |
| YG 3, % | 41.75 | 28.62 | 35.41 | 42.47 | 47.18 | 50.64 | 55.19 | 58.01 |
| YG 4, % | 8.34 | 4.12 | 6.12 | 8.37 | 10.31 | 12.14 | 12.34 | 13.36 |
| YG 5, % | 0.69 | 0.37 | 0.53 | 0.78 | 0.88 | 1.00 | 0.73 | 0.47 |
| Avg. YG | 2.50 | 2.17 | 2.35 | 2.53 | 2.65 | 2.74 | 2.80 | 2.84 |
| 575 lb./down, % by wt. | 0.49 | 0.60 | 0.66 | 0.47 | 0.36 | 0.32 | 0.23 | 0.19 |
| 1,000 lb. up, % by wt. | 2.01 | 2.66 | 2.28 | 1.74 | 2.28 | 1.44 | 1.39 | 0.99 |
| QG premium, \$/hd. | 19.02 | -4.29 | 6.46 | 18.85 | 30.03 | 38.34 | 45.23 | 50.20 |
| Yield benefit, \$/hd. | 11.31 | 15.85 | 13.63 | 10.75 | 9.60 | 8.27 | 7.27 | 4.98 |
| YG premium, \$/hd. | -3.17 | 1.19 | -1.00 | -3.41 | -5.18 | -6.77 | -6.79 | -7.39 |
| Out weight discount, \$/hd. | -3.20 | -4.19 | -3.75 | -2.82 | -3.46 | -2.24 | -2.10 | -1.51 |
| Steer premium, \$/hd. | 1.07 | 1.23 | 1.07 | 0.90 | 0.98 | 1.06 | 1.42 | 1.83 |
| Subtotal grid premium, \$/hd. | 25.04 | 9.79 | 16.41 | 24.27 | 31.97 | 38.66 | 45.03 | 48.10 |
| ASV premium, \$/hd. | 7.25 | 7.48 | 3.65 | 5.49 | 7.88 | 12.22 | 16.31 | 21.31 |
| Gross premium, \$/hd. | 32.29 | 17.26 | 20.06 | 29.76 | 39.85 | 50.88 | 61.34 | 69.40 |

^aValues are derived from a summary of lots with IW=400-999, DOF=70-300; lots with blank values are omitted.

Give cattle time to finish profitably

Corn prices are up in the sky compared to the wildest fantasy of 10 years ago.

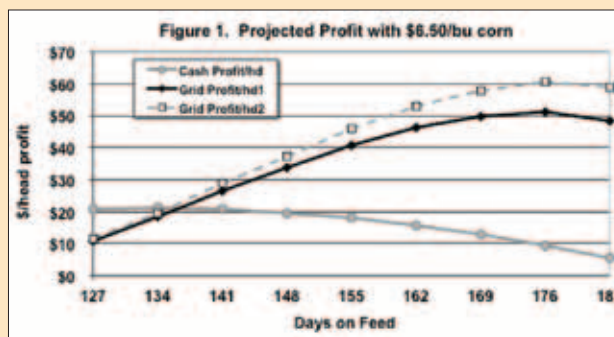
A cattleman might assume a few other market factors will fall into line, such as more backgrounding on grass and fewer days on feed to finish. You might figure this “new reality” will put the brakes on feeding for high quality, and point the way back to cash live sales. Don’t be too hasty.

For most of the 1980s and 1990s, everyone knew corn would cost about \$2 per bushel (bu.), but there was one weather-related run-up in the mid-1990s that caused some anxiety about how higher-priced corn would affect cattle feeding. In 2001, a U.S. Premium Beef LLC (USPB) economic model jacked the corn price up by 50% to \$3.10 per bu. The analysis showed that not only did it still pay to feed corn for the historical average of 155 days, but it paid to feed them beyond that average when selling on the grid.

“We recreated our seven-weight steers from the year prior for the model,” said Brian Bertelsen, USPB vice president of field operations. “We calculated feedlot performance with a feedyard projection and applied serial slaughter research relative to the actual carcass results that let us calculate the effect on grid marketing versus cash sales a month before or after the base of 155 days.”

In December 2010, USPB saw reason to rerun the model with corn at \$5.25 per bu., and all other market data updated. As it happened, the results were out of date in six weeks, so Bertelsen gave it another rerun in February 2011 with corn at \$6.50 per bu. (see Table 2). More details can be found at www.uspremiumbeef.com/DocumentItem.aspx?ID=72.

“Each time, we tried to use realistic inputs,” he said. “In each case, purchase price and selling price were such that the ‘base’ values had at least a little profit, say \$15 to \$20 per head. The relationship has always been very, very similar — it pays to feed



longer and sell on the grid, but with cash sales you might as well sell early because those profit opportunities start to fall off then” (see Fig. 1).

What if corn goes even higher?

“We also recalculated these projections at even higher corn prices. Keeping everything else constant, as corn price increases, the relationship between grid and cash profits appears similar,” Bertelsen noted. “Eventually, as corn price increased, the benefit of feeding cattle longer slows down, but it’s at a much higher corn price than what you might expect.”

Of course, the feeder purchase price may not remain the same as corn goes higher, he added.

One conclusion is that the feeding industry is much too focused on keeping a lid on cost of gain, assuming the road to economic ruin comes from feeding cattle another couple of weeks when gain cost is rising.

“That is how feedlot performance has traditionally been evaluated,” Bertelsen said, “but that is not your profit when you sell on a grid.”

Table 2: Projected performance at different days on feed

| Weeks | -4 | -3 | -2 | -1 | Base | +1 | +2 | +3 | +4 |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Days on feed | 127 | 134 | 141 | 148 | 155 | 162 | 169 | 176 | 183 |
| ADG, lb./day | 3.81 | 3.77 | 3.73 | 3.69 | 3.65 | 3.61 | 3.56 | 3.52 | 3.47 |
| DM F/G, lb. | 5.64 | 5.70 | 5.76 | 5.82 | 5.88 | 5.94 | 6.00 | 6.06 | 6.12 |
| Total cost of gain, \$ | 91.16 | 91.96 | 92.80 | 93.66 | 94.55 | 95.46 | 96.39 | 97.34 | 98.33 |
| Live wt., lb. | 1,234 | 1,255 | 1,276 | 1,296 | 1,316 | 1,334 | 1,352 | 1,369 | 1,385 |
| Hot carcass wt., lb. | 773 | 790 | 807 | 824 | 840 | 856 | 872 | 886 | 900 |
| Yield, % | 62.64 | 62.93 | 63.23 | 63.52 | 63.82 | 64.12 | 64.41 | 64.71 | 65.00 |
| Prime, % | 0.00 | 0.23 | 0.63 | 1.03 | 1.43 | 1.83 | 2.23 | 2.63 | 3.03 |
| Choice & Prime, % | 49.62 | 54.00 | 58.46 | 62.56 | 67.07 | 71.13 | 74.64 | 78.26 | 81.38 |
| Ungraded, % | 5.04 | 3.77 | 2.86 | 2.01 | 1.31 | 0.46 | 0.00 | 0.00 | 0.00 |
| CAB®, % | 10.29 | 12.14 | 13.97 | 15.99 | 18.48 | 20.88 | 23.18 | 25.38 | 27.03 |
| BCPR, % | 9.79 | 10.40 | 10.96 | 11.35 | 11.83 | 12.47 | 13.14 | 13.88 | 14.78 |
| YG 1, % | 25.50 | 21.66 | 17.86 | 14.19 | 10.64 | 7.49 | 4.61 | 1.99 | 0.00 |
| YG 2, % | 40.79 | 41.98 | 42.83 | 43.36 | 43.53 | 43.11 | 42.23 | 40.99 | 39.54 |
| YG 3, % | 30.64 | 32.54 | 34.90 | 37.17 | 39.43 | 41.54 | 43.63 | 45.68 | 47.00 |
| YG 4, % | 3.07 | 3.82 | 4.41 | 5.25 | 6.05 | 7.29 | 8.68 | 10.05 | 11.73 |
| YG 5, % | 0.00 | 0.00 | 0.00 | 0.03 | 0.35 | 0.57 | 0.85 | 1.29 | 1.73 |
| Lightweight, % | 0.36 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Heavyweight, % | 0.00 | 0.00 | 0.35 | 1.61 | 3.16 | 4.76 | 6.88 | 9.98 | 15.21 |
| Cash profit, \$/hd. | 20.98 | 21.20 | 20.77 | 19.72 | 18.07 | 15.82 | 12.98 | 9.53 | 5.46 |
| Premium, \$/hd. ^{1,3} | -10.20 | -2.84 | 5.89 | 13.96 | 22.85 | 30.73 | 37.02 | 41.80 | 42.85 |
| Grid profit, \$/hd. ¹ | 10.78 | 18.36 | 26.66 | 33.68 | 40.92 | 46.55 | 50.00 | 51.33 | 48.31 |
| Premium, \$/hd. ^{2,3} | -9.31 | -1.65 | 8.23 | 17.63 | 28.01 | 37.35 | 45.01 | 51.23 | 53.62 |
| Grid profit, \$/hd. ² | 11.67 | 19.55 | 29.00 | 37.35 | 46.08 | 53.17 | 57.99 | 60.76 | 59.08 |

¹C/S spread = \$5.47; Prime = \$15.42; CAB = \$3.18 (FY 2010 actual averages).

²C/S spread = \$8.00; Prime = \$25.00; CAB = \$3.75.

³Grid premiums were calculated with the current Base grid using a 55% Choice and Prime threshold.

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have been lower. The percentile group that was more than 55% CAB earned more than \$50 per head in quality grade premiums, easily overpowering the -\$7.39 in yield grade discounts on the bottom line last year.

It is noteworthy that FY 2010 was the second-lowest Choice-Select spread, at \$5.47 per hundredweight (cwt.), in USPB company history and the lowest CAB premium at an average \$3.18 per cwt., yet the market signals for high-quality beef rang out as loud as ever. In fact, quality grade premiums were still the fourth-highest in company history.

That's because so many factors are integrated and work hand in hand with feeding strategies, explained Bertelsen.

"You can see a lot of relationships that follow the CAB acceptance rate higher (in the table), such as the share of black-hided, Prime, average yield grade, carcass weight and overall total grid premiums," he said. Another factor that increased was age- and source-verified (ASV) premium.

"Part of the story behind the highest CAB-accepted cattle is those producers may know more about them, which leads to the highest ASV premium in that column," Bertelsen said.

One mark of larger premiums is a relatively high percentage of YG 3 cattle, he added. "As YG 3s increase, quality grade improves, but a lot of people forget how much heavier they are, too. Sorting individual cattle with a target of a YG 3 allows the producer to add pounds and improve quality premium."

Some say the ideal animal would be a Prime YG 2, but Bertelsen would counter, "why not make more money with a Prime 3?"

YG 3 steer carcasses are 28 lb. heavier than YG 2s in the USPB data. What's more, their average price per head was \$46 more since they were not only heavier, but also had significantly higher quality grade. The YG 4s are even heavier, on average, compared to YG 3s. Likewise, their QG is higher. Even with discounts applied for yield grade, they command a high total value per head.

Bertelsen's blog series on the USPB website (www.uspremiumbeef.com/BriansBlog.aspx) is a treasury of pointers on how to better adjust aim to hit high-quality beef targets profitably. A February post analyzed the effect of feeding today's pricey corn for shorter or longer periods, with some surprising results (see sidebar on page 147).



Editor's Note: Steve Suther is director of industry information at Certified Angus Beef LLC.