



# Finding the Right Yield Grade Endpoint

By Brian Bertelsen, VP, Field Operations

As cattle are fed longer, marbling fat is increasing, but so is external fat. So what is the ideal stopping point? What should your target Yield Grade (YG) be?

The table below shows a summary by Yield Grade of individual steer carcasses that were marketed on the USPB grid during delivery year 2013 at National Beef’s Kansas plants. **Carcasses on a natural program and those fed Zilmax® were excluded.**

As Yield Grade increases, so does carcass weight and the rate of increase is surprisingly consistent. In fact, on average, YG 5 carcasses were 30 pounds heavier than YG 4’s. The second largest incremental change, comparing YG 4 carcasses to YG 3’s was a 29 pound difference, so the rate of change in carcass weight certainly didn’t slow down as Yield Grade increased.

Of course, as Yield Grade increases, backfat increases and ribeye area decreases. YG 1’s are leaner and heavier muscled. YG 5’s are fatter and lighter muscled. The “actual minus required ribeye area” really changes as Yield Grade increases because carcass weight is increasing, but ribeye area is actually decreasing. Greater backfat, less ribeye area and greater carcass weight are all factors that cause the Yield Grade to be higher.

**It is also interesting to note how many YG 4 and 5 carcasses were also discounted for being too heavy.**

As Yield Grade increases, so does marbling score. Between the leaner grades, the incremental change is very substantial. Then, between the fatter grades, the rate of marbling begins to slow down. However, for YG 5 carcasses, the average marbling score is right in the middle of the Choice Quality Grade.

Since marbling is the main factor for determining Quality Grade, each of the quality grades increase as Yield Grade increases. The percentage of Choice and Prime carcasses begins to slow down first since the Choice grade spans three separate degrees of marbling. Total percentage of carcasses qualifying for either Certified Angus Beef® (CAB) or Black Canyon® Premium Reserve decreases because of the backfat and ribeye specifications for CAB.

YG 3 carcasses have the highest average price per cwt. This is the average of the actual prices paid on the USPB grid during delivery year 2013. However, Yield Grade 4’s have the highest total value per head. This is due to their Quality Grade and carcass weight. It is also important to note that some YG 4’s in our database were in lots that were below plant average and therefore had NO discount for being a YG 4.

**The “take-home” message is that YG 3 should be the center of your target—your bull’s eye.** That is the highest price per cwt. Other analysis has shown that USPB lots with higher percentage of YG 3’s had higher overall grid premium compared to selling on the cash, live market. So you want as many YG 3’s as possible. However, YG 4 carcasses are not that much of a lost opportunity, providing there is a significant increase in carcass weight and Quality Grade. And the data shows that to be true, on average.

Our grid has been criticized for not paying enough premium for YG 1 or 2 carcasses. Admittedly, there is less waste fat. However, the data shows that the Quality Grade is just not there. Yield Grade 1’s and 2’s are collectively about 59% Choice and Prime. While this sounds pretty good, you have to remember that this is within the population of USPB cattle marketed on our grid. They are already above average for the industry. When you compare the Quality Grade of YG 1 and 2 carcasses to YG 3 and above, they fall short.

**Another thing to focus on is the lost opportunity in falling short of the target:** The difference between a YG 2 and a YG 3. It’s the smallest incremental change in the price per cwt. However, it’s the largest incremental jump in total dollars per head—an increase of \$78 per head. (See Chart.) Sorting off YG 2’s to stay in the pen and be fed longer and marketed as a YG 3 can really add value.

The grid is telling you what type of cattle are needed: High Quality Grade. And, Quality Grade is maximized when good quality cattle are fed longer, to a higher Yield Grade. Today’s cattle certainly appear to have the genetics to continue growing. In the current market, a pound of carcass weight is worth over two dollars per head. With a higher Quality Grade, each added pound is worth even more. ♦

	YG 1	YG 2	YG 3	YG 4	YG 5
Carcass Weight, lbs.	830	850	876	905	935
Backfat, in.	0.26	0.40	0.55	0.74	0.98
Ribeye Area, sq. in.	16.21	14.66	13.56	12.66	11.82
Actual-Required REA	2.44	0.65	-0.77	-2.01	-3.21
Heavyweight, %	2.96	4.56	7.38	13.33	23.04
Marbling Score	381	434	485	525	554
Prime, %	0.17	1.39	4.57	9.86	15.02
Choice/Prime, %	34.28	65.71	85.24	92.34	94.69
Total Branded Beef, %	12.00	35.58	56.26	63.45	46.76
\$/cwt.	\$193.75	\$197.94	<b>\$201.04</b>	\$196.98	\$189.45
\$/head	\$1,609	\$1,684	\$1,762	<b>\$1,783</b>	\$1,770

