

TCFA FED BEEF CHALLENGE INDEX

The factors used in calculating the index are fat thickness at the 12th rib, quality grade, ribeye area, and internal fat (KPH). The index is a base of 100 with calculations for each factor adding or subtracting points from the index.

The USDA Grading Service will make the official call on fat thickness, quality grade, and internal fat (KPH). Cattlemen's Carcass Data Service will measure the ribeye areas.

Awards will be based on the sum of the individual scores from all three animals (all three carcasses do not have to grade Choice). In the event of a tie, it will be broken first by uniformity of carcass weight, then, if needed, by uniformity of ribeye area. The scores produced by the index are final.

The Grand Champion carcass will be the carcass with highest individual score. In the event of a tie for this award, the USDA Grading Service will be asked to choose a winner based on overall appearance, conformation, and marketability of the carcass.

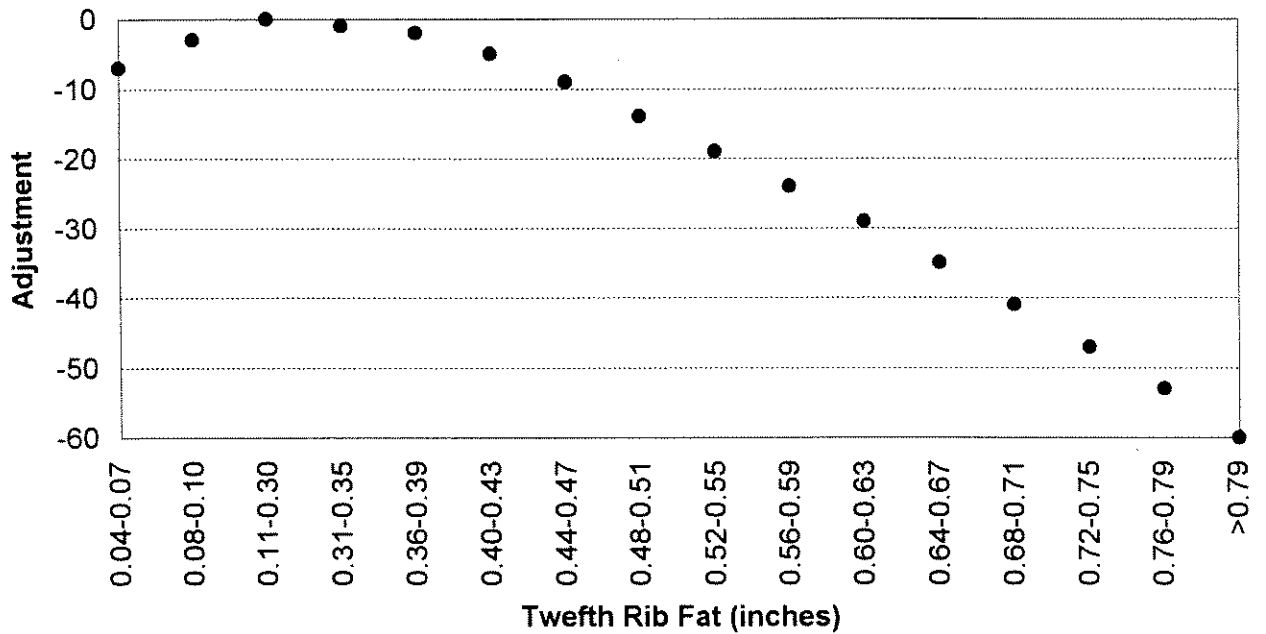
On the following pages are explanations of the factors used to calculate the index and examples of each.

TWELFTH RIB BACKFAT THICKNESS

The optimum backfat thickness is defined as 0.12-0.31 inches. This closely corresponds to the industry's goal of .25 inch trim. The index is adjusted according to the following scale:

<u>12th Rib Fat</u>	<u>Adjustment</u>
0.00-0.03	-12
0.04-0.07	-7
0.08-0.10	-3
0.11-0.30	0
0.31-0.35	-1
0.36-0.39	-2
0.40-0.43	-5
0.44-0.47	-9
0.48-0.51	-14
0.52-0.55	-19
0.56-0.59	-24
0.60-0.63	-29
0.64-0.67	-35
0.68-0.71	-41
0.72-0.75	-47
0.76-0.79	-53
>0.79	-60

Twelfth Rib Fat Adjustments

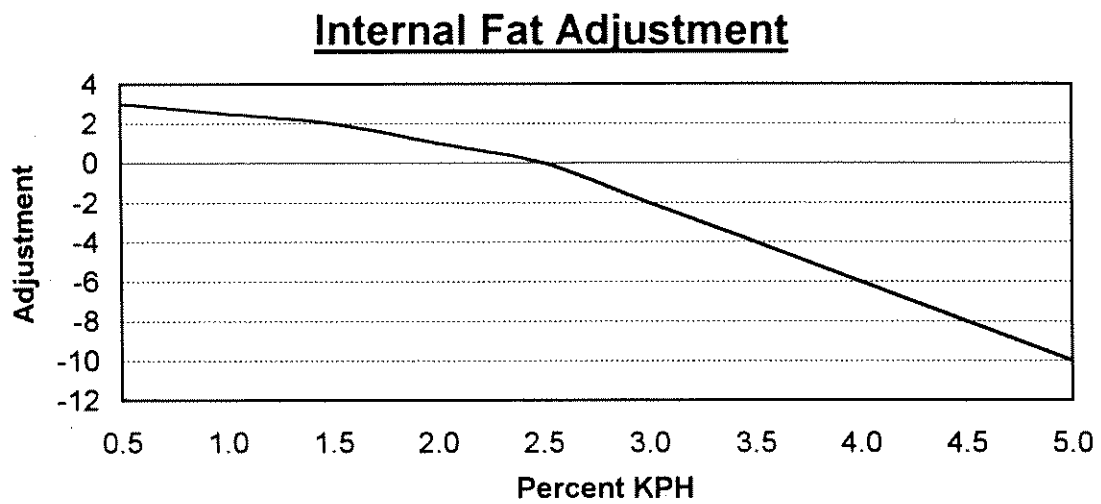


Kidney Pelvic and Heart Fat

Internal fat adjustments are as follows:

<u>KPH</u>	<u>ADJUSTMENT</u>
0.5	3
1.0	2.5
1.5	2
2.0	1
2.5	0
3.0	-2
3.5	-4
4.0	-6
4.5	-8
5.0	-10

The following graph illustrates these adjustments.

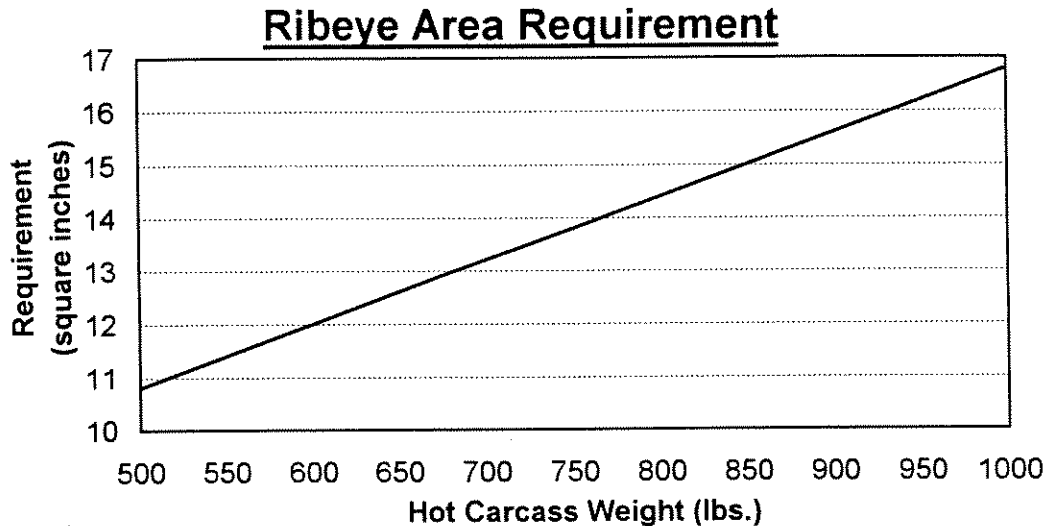


Ribeye Area

For each carcass, a ribeye area requirement is calculated based on hot carcass weight. The formula used to develop the required ribeye area was developed by meat scientists working with the Beef Empire Days contest in Kansas. The formula is:

$$4.8 + 0.012 * HCW.$$

The ribeye area requirements are illustrated in the following graph.



The following are some examples.

For every square inch that a ribeye deviates from the required value, a 5-point adjustment will be made to the index. For example, a 600 pound carcass would require a 12.0 inch ribeye. If the actual ribeye area is 14.0 square inches, 10 points would be added to the index. If the actual ribeye area was 10.0 square inches, 10 points would be deducted from the index.

A ribeye area of 16 square inches is the maximum allowed. Carcasses with greater than the maximum will not receive the full adjustment due them. After 16 square inches no additional points will be added. For example, a 600 pound carcass would require a 12.0 inch ribeye. If the ribeye area was 17.0 square inches the carcass would only have 20 points added to the index, rather than 25 points. See the example below.

17.0 square inches = Actual ribeye area

12.0 square inches = Required ribeye area

5.0 square inches for an adjustment of 25 points (5 * 5 in.)

16.0 square inches = Maximum allowed ribeye

17.0 square inches = Actual ribeye area

-1.0 square inches for an adjustment of -5 points (5 * -1 in.)

25-5 = 20 points actual adjustment

Quality Grade

The index will be adjusted for Quality Grade according to the following scale.

QUALITY GRADE ADJUSTMENT

ST-	-72
Sto	-72
ST+	-72
SE-	-36
SE+	-21
CH-	0
Cho	4
CH+	6
PR-	8
Pro	8
PR+	8

Quality Grade Adjustment

