

Estimation of carcass composition by rib dissection
(Shackelford et al., 1995).

1. Slaughter, dress, and chill carcasses normally.
2. Record hot carcass weight and determine marbling score at 24 to 48 hours postmortem. Marbling should be entered in the database as Small⁰ = 500 (Standard MARC procedure).
3. Wholesale rib should be removed from the right (left could be used in case of workmanship problems on the right side) side of the carcass as follows:
 - a. separate the rib and plate from the chuck and brisket by cutting from the posterior edge of the distal end of the 5th rib to the anterior edge of the proximal end of the sixth rib in a straight line perpendicular to the outside surface of the forequarter.
 - b. separate the rib from the plate by a straight cut across the ribs starting at a point (according to Table 1) on the posterior edge of the 12th rib continuing through a point (according to Table 1) on the anterior edge of the 6th rib.

For cattle slaughtered commercially, purchase a wholesale rib and transport to MARC. Then the wholesale ribs will have to be standardized according to a and b above.

4. **Weigh** the standardized wholesale rib.
5. Remove the short ribs by a straight cut across the ribs starting at point (according to Table 2) on the loin end continuing through a point (according to Table 2) on the blade end.
6. Only ribs number 6, 7, and 8 are saved as short ribs. The short rib cut is trimmed of all subcutaneous fat, **weighed**, and boxed for market.
7. Remove the ribeye roll, trim all exposed seam fat, **weigh**, and tag for subsequent palatability assessments.
8. Separate remaining peices into lean trim (80% lean), fat trim, and bone (backstrap goes with bone) and **weigh each component**.
9. Enter variables into spreadsheet which will calculate totally-trimmed retail product yield, fat yield, bone yield, retail product weight, fat weight, and bone weight according to Shackelford et al. (1995).

Citation:

Shackelford, S. D., L. V. Cundiff, K. E. Gregory, and M. Koohmaraie.1995. Predicting beef carcass cutability. J. Anim. Sci. 73:406-413.

Table 1. Separation of rib from plate

Hot carcass weight	Distance on rib from the ventral edge of the spinal canal, inches
400 to 499	8.5
500 to 599	9.0
600 to 699	9.5
700 to 799	10.0
800 to 899	10.5
900 to 999	11.0
1000 to 1099	11.5
1100 to 1199	12.0

Table 2. Separation of short ribs from rib

Hot carcass weight	Distance on rib from tip of ribeye, inches	
	loin end	blade end
300 to 499	1.5	3
500 to 699	2.0	4
700 to 899	2.5	5
900 to 1099	3.0	6
1100 to 1299	3.5	7