White or Red, What Meat Are Your Cows Producing?

By Kris Ringwall
Extension Beef Specialist
NDSU Extension Service

Quality and yield grades are major factors in the price producers receive for their beef. As a result, individual producers need to understand the amount of red meat their respective herds are capable of producing.

Understanding red meat production from your herd involves data collection. Data offers up knowledge of your herd and the knowledge gives you power to make positive change within your herd. At the North Dakota State University Dickinson Research Extension Center, data has been collected for nine years, playing a key role in the purchase of genetics.

Our goal is to put the maximum pounds of red meat on the rail and ultimately in the retail counter at the local grocery store. An analysis of our 2002 steer crop revealed information about red meat and white meat (fat) produced. The focus today, however, is on the amount of red meat produced.

This can be measured in several ways, but the most common is by calculating a yield grade, an estimate of boneless, closely trimmed retail cuts from the round, loin, rib, and chuck. Ultimately, yield grade would be an indication of the yield of red meat within a carcass and allow for the subsequent pricing of the carcass. Yield grades range from 1 to 5, with 1 being the most lean and 5 the fattest.

The Centerís 2002 steers were divided into two lots. The first lot was placed on feed Nov. 1, 2002. Data from carcasses on the rail show 0 percent were yield grade 1, 27 percent were yield grade 2, 60 percent were yield grade 3, 13 percent were yield grade 4 and none were yield grade 5. The second lot was placed on feed Dec. 23, 2003. This set of steers were 2 percent yield grade 1, 32 percent yield grade 2, 63 percent yield grade 3, 3 percent yield grade 4 and 0 percent yield grade 5.

At first glance, our steers appeared to be doing fine. The yield grade cattle, those discounted for excess fat, were 13 percent and 3 percent respectively from the two lots. The quick conclusion is that the second lot appears acceptable and the first lot was not as good. A closer look, however, is necessary to better evaluate the numbers.

Literature for similar data from the 2000 National Beef Quality Audit gives a solid comparative benchmark: 12.2 percent of cattle graded yield grade 1, 37.4 percent were yield grade 2, 38.6 percent graded yield grade 3, 10.4 percent graded yield grade 4 and 1.3 percent graded yield grade 5. Our cattle are not doing too bad.

The first lot of steers is still not great, but perhaps the lack of cattle grading yield grade 1 and the large number of yield grade 3 carcasses tell a bigger and sadder story. These two lots of steers had 60 percent and 63 percent yield grade 3ís respectively in contrast to only 38.6 percent yield grade 3ís in the national beef quality audit for 2000.

Sorting the impact of measuring carcass quality is difficult. In the 2002 steers, white meat (fat) is a concern, however, one must remember fat is not the only determining factor in yield grade. Carcasses must meet a minimum rib eye area as well.

For the Centerís steers, the first lot averaged 11.85 square inches of rib eye, while the second lot averaged 12.0. In reviewing USDA yield grade standards, the first lot had an average carcass weight of 735 pounds and required a 12.62 square inch rib eye. For the second lot, the average carcass weight was 726 pounds requiring a 12.52 square inch rib eye. In both cases the steers were short on rib eye area. The first lot was short by 0.78 square inches and the second lot short by 0.52 square inches, thereby increasing average yield grades by 0.2 increments.

Essentially, the data is telling me the steers produced at the Center are too fat and do not carry enough muscle--two big factors in the business of beef, especially, when the business is to put lean meat on the table of the consumer. This is a tough, but true note to end on.

May you find all your ear tags.

Your comments are always welcome at www.BeefTalk.com. For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to www.CHAPS2000.com on the Internet. In correspondence about this column, refer to BT0174.

USDA Beef Yield Grades for Steer Calves Born in 2002

NDSU Dickinson Research Extension Center

USDA Yield Grade	1	2	3	4	5
DREC Lot 1	00.0%	27.9%	60.0%	13.0%	00.0%
DREC Lot 2	02.0%	32.0%	63.0%	03.0%	00.0%
2000 National Beef	12.2%	37.4%	38.6%	10.4%	01.3%
Quality Audit*					
DREC response	Increase	Increase	Decrease	Decrease	Not a Problem

* 2000 National Beef Quality Data is from the J. Anim. Sci. 2002. 80:1212-1222