

# Beef Logic

by R.A. "Bob" Long



## The nation's beef is still too fat

The 1991 National Beef Quality Audit revealed that the nation's beef carcasses were too fat, thinly muscled, deficient in marbling and lacking in uniformity. Each of these deficiencies costs beef producers money, but FAT was the greatest offender by far.

Excess fat is not a new problem in the beef industry. A beef audit in the early 1970s revealed exactly the same situation. Further, the U.S. Department of Agriculture (USDA) conducted extensive cutting tests in the late 1950s and introduced a yield-grading system in 1962 based on fat thickness at the 12th rib; ribeye area; carcass weight; and kidney, pelvic and heart (KPH) fat. This system is still in use and does a good job of estimating the percent yield of trimmed retail cuts of a beef carcass. When coupled with quality grade, it forms the USDA's dual grading system, which is the basis for value-based marketing.

The yield grade (YG) is concerned only with the percent yield of boneless, closely trimmed retail cuts from the round, loin, rib and chuck. The yield grades are 1, 2, 3, 4 and 5, with 1 being the most desirable. YG is determined by fat thickness at the 12th rib, the area of the ribeye at the 12th rib, the hot carcass weight and percent KPH fat.

Fat thickness has, by far, the greatest influence on YG. A recent cutting test at Oklahoma State University clearly illustrates the difference in YGs. Three steer carcasses, each weighing 750 pounds (lb.) with a Quality Grade of USDA Choice, were boned, trimmed and processed for boneless boxed beef. The results were as follows:

Yield Grade	Fat, lb.	Bone, lb.	Salable Product, lb.	Value, \$
1.5	97	103	537	871
2.5	125	104	504	813
3.5	149	102	481	773

Understandably, meat packers prefer to buy a YG 1.5 rather than a 3.5. Just think — a \$100 difference in value plus less labor in

processing. This explains why packers organized special schools during the 1960s to train cattle buyers to identify the cattle with desirable yield grades. Further, it explains why packers will pay more for the high-cutability (low-YG) cattle if they must.

Not understandable is why beef cattle breeders, both purebred and commercial, give so little attention to fat thickness and the resulting undesirable yield grades. For example, Angus breeders, with access to the most extensive cattle performance data bank in the world, give practically no attention to fat in selection criteria.

The Spring 1999 Angus *Sire Evaluation Report* lists the breed average 12th-rib fat thickness for slaughter steers at 0.55 inch (in.), which is typical of YG 3.5 carcasses — thus a need for leaner carcasses.

Likewise, the American Angus Association reports the average expected progeny difference (EPD) for 12th-rib fat among the top 25 extensively used sires in 1998 was exactly zero, which simply means no expected change and no effort to change.

Why thinking people involved in the beef production business are not concerned about the composition of their product is beyond comprehension.

### ■ In the showing

Another instance, among seedstock producers, of either disregard for or ignorance of the fat problem is found in the fatness of cattle at major shows. Bulls of commercial slaughter age shown at the 1999 National Western recorded average ultrasound fat measurements of as much as 0.6 in., with some individuals being considerably higher. Even 8- to 10-month-old calves were carrying 0.4 and 0.5 in.

This probably occurs because breeders have been told of the need for heavier muscling, and they erroneously believe that wide backs indicate heavy muscling, which is a perfect example of man's limitless capacity for self-deception. Just think, bulls are leaner than steers of similar genetics; and fatness is a heritable trait. Therefore, if

the top bulls that breeders are showing have YG 3 and 4 carcasses, think of the fat on the carcasses of their steer progeny.

### ■ Conclusion

Excess fat is a problem in the beef industry. Excess fat production is inefficient. Fat carcasses yield a lower percentage of retail product and are worth less money. Fat thickness is a heritable trait. Fat thickness can be reduced only by genetic change. Therefore, breeders should emphasize fat in selection criteria. Currently this is not being done.

My next column will review the development of fatness and its effect upon beef production efficiency and will explain how to emphasize fat reduction in seedstock production.

### We Welcome Your Input!

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