

## Trends in the Beef Industry

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During the first half of the century, centralized slaughter plants were the state of the industry. These plants were typically located near large terminal livestock markets in several Midwestern cities on the Missouri and Mississippi Rivers. They were primarily what were known as kill and chill plants, in that cattle were purchased, slaughtered and the resulting carcasses sold as the primary production product. In the 1960's and 70's, the packing industry underwent species specialization and decentralization. New companies were formed and they built single-species plants located in smaller cities near the source of livestock. In the beef industry many of these plants not only slaughtered the cattle but also fabricated carcasses and shipped them in cut form. Vacuum bagging of these cuts and shipping them in boxes became the norm resulting in what we know as boxed beef today. This practice resulted in increased efficiencies of transportation due to a reduction in shipping of waste fat and bone, improved product freshness and considerable savings in product shrinkage.

During the past twenty years there has also been a marked change in consumer perceptions of what is desirable in beef, the product. The emphasis of this shift has largely been one of demanding a leaner product. This shift is a result of changes in consumer lifestyles and an awakening of diet-health concerns on the part of a large proportion of the U.S. consuming public. In 1985, results of a National Consumer Survey sponsored by the National Livestock and Meat Board and other industry groups, clearly showed that consumers preferred beef cuts that were closely trimmed of external fat. Retailers nation-wide have quickly accepted the results of this study and today most fresh beef sold at retail is trimmed to 1/4 inch or less of external fat.

Excel has responded to these trends in the industry and is attempting to aid the retailer who has the problem of not being able to sell beef with extra fat. To aid with this problem Excel decided if they "can't sell the fat, we won't ship the fat". Out of this attitude came our "Perfect Trim" program. This is a product which provides the retailer with boxed beef trimmed to an average of 3/8 of an inch external fat trim. In other words, extra fat is taken off at plant level, delivering to the retailer a more salable product that requires minimal additional trim.

About the same time, Excel initiated the "Branded Beef" program. This is simply boxed beef converted to pre-packed retail cuts available for the retailer to simply place in his meat counter. These retail cuts are trimmed to 1/4 inch or less external fat and individually packaged in a vacuum bag. Our company research has shown that most fresh beef purchased today is either cooked or frozen within two days of purchase. Due to the branded product being vacuum packaged, the customer can be sure the product will stay fresh in the refrigerator for at least seven days. If the consumer decides not to cook the product within the seven day period they can place the product in their freezer and then pull it out at their own convenience for cooking at a later time. This program



addresses the convenience and product freshness concerns of the consumer. It also results in transportation efficiencies since all waste fat and bone is removed before shipping. There are also other potential savings in the program relating to labor savings, increased product shelf-life and shrink reduction.

Due to the "Perfect Trim" and "Branded Beef" programs, Excel became concerned with the raw product from which these are produced - cattle. Due to this, Excel set out to identify a system of scoring and classifying animals that relates to their retail product yields. Through company research and the help of University experts, we developed a muscle scoring system for cattle and carcasses. This system is relatively simple and is based on the amount of outside fat present on the animal plus the size of the ribeye muscle. Obviously, the less outside fat an animal carries, the less will have to be trimmed on the resulting retail cuts. Also, the larger the muscle system present in the animal, the greater will be the resulting muscle mass in retail product form. Table 1 shows the Excel muscle scoring system as it relates to the two factors that determining the muscle score of the animal or its carcass. A-1's and A-2's are the more desirable types, B-3's are average type cattle in the industry today and C-4's and C-5's are inferior from the standpoint of retail product yield. It is Excel's intent to pay more for A-1 and A-2 type cattle, pay the average price for B-3's and to discount C-4's and C-5's. This type of pricing system should encourage the breeding and feeding of the more desirable cattle by the industry and discourage the continued production of waste fat and inferior muscled animals. It is intended to give a price signal to producers according to the true value of animals with true value being determined by salable product yields.

This does not mean that we want to de-emphasize product eating quality (palatability) since it is still important that the product maintain the desirable attributes of tenderness, juiciness and flavor. Research has indicated that these product attributes are highly related to the genetic background of the animal and that progress can be made in producing leaner animals that will still retain the desirable attributes of palatability. It is Excel's hope to aid cattle producers in identifying animals of this type and to encourage them in increasing their production of these higher value animals.

Table 1

EXCEL Muscle Scoring System		
Muscle Score	External Fat Thickness	Area of Ribeye Muscle/Cwt. Carcass
A-1	.35 inch or less	2.0 inches/cwt. or more
A-2	.36 to .45 inches	1.8 to 1.99 inches/cwt
B-3	.46 to .60 inches	1.70 to 1.79 inches/cwt
C-4	.61 to .80 inches	1.40 to 1.69 inches/cwt
C-5	.80 inches or more	Less than 1.4 inches/cwt