

# Livestock Notes

## The Genetics Of Carcass Grade

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The conventional wisdom in the cattle feeding business has been that, if you feed cattle the right feed for a long-enough period of time, you can eventually get them to grade Choice. While this method has resulted in plenty of Choice cattle, it also has created plenty of fat in cattle. And fat costs the industry money — more than over \$100 per carcass — according to the National Beef Quality Audit. Is there a better way?

We have known for some time that fat thickness in a carcass is not highly correlated genetically with marbling score (intramuscular fat in the ribeye that largely determines quality grade). Therefore, we know it is possible to select cattle for marbling score without also making them fatter. The problem has been that the cattle were already dead when the marbling was measured, and there was little identification to trace the parentage for genetic evaluation.

Several breed associations, notably the American Angus Association, have tried to fix the problem by developing EPDs (expected progeny differences) for marbling score in bulls. It is now possible to buy bulls with the genetic ability to transmit marbling to their offspring.

A recent study at the University of Nebraska (Vieselmeyer et. al) has proven the value of the marbling EPD. In this trial, crossbred cows were mated to either high- or low-marbling EPD bulls. Results indicated birth weight, weaning weight, and yearling weight dif-

ferences were accounted for by the differences in the EPDs for these traits among bulls.

Therefore, selection for marbling score did not affect these traits. However, 77 percent of steer calves and 72 percent of heifer calves from high-marbling bulls reached Choice grade after a prescribed feeding period, compared to 47 percent of both steers and heifers from low-marbling bulls fed for the same amount of time. Further, fat thickness was not different among these groups.

Genetic selection has improved the ability of the breeder to change traits that are most economically important. Quality grade can now be added to the list.

**Cattleman Survey For Pennsylvania**  
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A recently completed survey of Pennsylvania beef, dairy, and veal producers has highlighted important trends in the state's cattle industry.

Respondents were randomly selected from a list of more than 12,000 names and asked to provide information about possible expansion of their cattle enterprise, evaluate possible roadblocks to that expansion, and indicate if they felt they had access to the information and technology needed to remain competitive. The answers provide an important view of the cattle business.

A high percentage of cattle owners, primarily the under-40 group, anticipate expanding their enterprises in the next few years. Answers on many topics from this age group were consistently different from those in the 40-60 and over-60 age groups. These topics

included how they access information, who they consider to be the best sources of information, and their fear of regulations that will affect their ability to expand herds in the future.

Information provided by those who listed beef as their major enterprise provided both good and bad news for the industry. First, the notion that beef breeders in Pennsylvania are primarily hobbyists without a profit incentive was thoroughly dispelled. More than 90 percent of the respondents indicated they depend on beef production as either a primary or secondary source of family income. About one-third of all farmers in the survey owned beef cattle and, roughly, two-thirds owned dairy cattle.

The disturbing news indicated a clear trend in the age of beef producers in the state. Fewer than 20 percent of beef producers listed their age as under 40, the opposite that shown for those primarily in dairy. This is a signal to the industry that methods must be found and implemented that will allow entry of younger cattle producers into the beef business if it is to remain consistent and viable over the next 10 years.

Copies of the survey are available at \$2 per copy from John Comerford, The Pennsylvania State University, 324 William L. Henning Building, University Park, PA 16802.

**BSE Issue In The Spotlight**  
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The topic of bovine spongiform encephalopathy (BSE) has worked its way back into the news this fall.

Several of the trade magazines have published reports and articles about the disease. The most balanced, easiest to read report on the subject was published in the August 25 issue of Hoard's Dairyman.

Press coverage reveals a great deal of uncertainty, scientifically speaking, about BSE. Some repor-

ters are trying to make it a consumer issue.

The University of Wisconsin held a symposium in September, which brought together experts to assess the status of BSE in this country. The USDA, through the Animal and Plant Inspection Service, has been tracking the disease world-wide for several years. One USDA scientist described BSE status in the U.S. as "circumstantial evidence of a hypothetical disease."

To date, these are the facts in the U.S.

- There is no known incidence of BSE in this country.

- No medical evidence suggests that BSE presents a human health risk.

- The USDA conducts ongoing epidemiological surveillance and research for BSE.

- The U.S. does not import live cattle, beef, or beef products from Great Britain.

Since the conference in Wisconsin, however, the first case has been confirmed in North America. The animal diagnosed was a six-year-old cow imported from the U.K. as a 5-1/2 month old calf in 1987. While this finding is significant, it is not a crisis.

First, all scientific evidence shows that lateral transmission (animal-to-animal) does not occur. The USDA and Ag Canada are tracking the offspring from the cattle that were imported from Great Britain to the U.S. or Canada prior to the 1989 moratorium. Hence, the entire at risk population is known and accounted for by the USDA and Ag Canada.

**NAFTA And The Meat Industry**  
**William R. Henning**  
 Assoc. Professor  
 Animal Sciences

The North American Free Trade Agreement (NAFTA) has been signed into law!

Most experts believe it will be good for agriculture in both the short and long run. The American Meat Institute says, "each of the five volumes was as large as a

phone book and written with the legal profession's usual clarity."

So it appears that the vote was taken more on emotion and speculation than on substance.

NAFTA appears good in all respects for the meat and poultry industries. Mexico has been a growing market for US meat products, and will probably become even better as Mexico's economy improves. Last year, the U.S. exported \$448 million in meat products (13 percent of our total exports) and imported Mexican meat products worth \$1.8 million (0.7 percent of our total imports).

It appears that beef will be helped the most by NAFTA. Mexico recently imposed tariffs on beef — 15 percent on live slaughter cattle, 20 percent on fresh beef, and 25 percent on frozen. These tariffs cost the U.S. beef industry an estimated \$95 million in 1993. Tariffs on beef will be rescinded immediately, with the exception of a 20 percent tariff on beef variety meats, to be phased out over the next 10 years. Coming the other way, U.S. tariffs of two cents per pound on Mexican beef and one cent per pound on live cattle will be eliminated immediately.

The picture is not so bright for pork. Mexico will establish a special safeguard tariff rate quota on fresh and frozen pork of 68,500 metric tons. Mexico's current tariff of 20 percent on these products will be reduced by 2 percent per year over the next 10 years, while the quota will be increased by 3 percent per year, compounded. Pork cuts going to Mexico in quantities over the quota level will be subject to a snap-back 20 percent tariff for the next nine years. After the tenth year, there will be no quotas.

Other tariffs on pork are 20 percent for processed, 15 percent for pork sausage, 20 percent for fresh pork variety (10 percent if frozen). Since we currently import no pork from Mexico due to hog cholera, there are no tariffs on Mexican pork. This import ban will not

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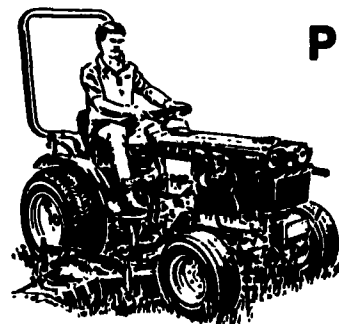
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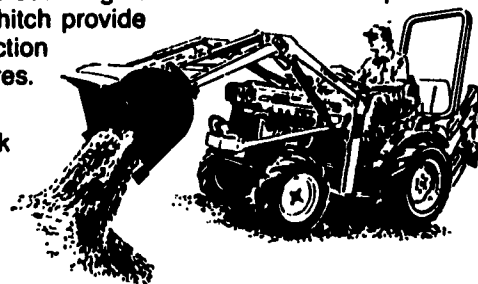
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