

HIGHLAND BEEF SEEMS TO BE BUCKING THE TREND

**Dr. Bryon Wiegand, Associate Professor
Meat Science, University of Missouri**

As we have just hit the 100 head mark in the Highland Beef Quality study, several points are becoming clearer. One is not surprised to find that the variation in meat traits that are closely associated with diet (mainly fat profile) are quite variable across regions, farms, and genetics. To date, a few producers have contributed greatly to the sample size, thus influencing the fat profile, fat content, and cooking loss parameters with their particular system. As the data set grows, individual producers will have less impact on the overall picture of the breed. At the conclusion of the study individual producers will be able to benchmark against the average and compare data by region, finishing system, and carcass aging time to determine where their beef lies on the spectrum.

To date, the most intriguing trend that rises to the top is the tenderness of Highland beef. There are very few, if any “tough” samples in the entire data set. These results seem true regardless of production system. Tenderness traits

are moderately heritable and tend to track with cattle of certain genetic origin, with *Bos taurus* (temperate climate) cattle having a greater propensity for tender meat compared with *Bos indicus* (tropical climate or zebu) cattle. There is also evidence in the literature that aging time postmortem can greatly contribute to tenderness, especially past nine days in the cooler for dry aged intact carcass beef. We also find a positive relationship between increased marbling and increased tenderness. The Highland beef that we have tested seems to buck this last trend in that the fat percentage in most samples are low compared to the industry indicating less marbling, but still producing a tender product. This could prove to be a unique marketing tool as we go forward.

It has taken us quite a while to eclipse 100 samples for the data set, but the pace has increased dramatically in recent months. Like any system, it takes a long time for people to learn the process, buy into the effort, and then ultimately

participate. It is important to continue to send samples! Keep in mind that while the preference is for state or federal inspected samples so they can be part of the sensory panel, it is not a requirement for the other tests. All samples are encouraged. Even one sample from one producer is better than none. We have the up to date raw data thus far. Caution should be taken in “extrapolating” data with a preliminary set, but the trends are becoming clearer and individual producers can pull their data out and at least use it as benchmarking for marketing purposes. As always, I am willing to discuss data on a case by case, producer by producer basis.

The best way to reach me is via email wiegandb@missouri.edu. Please email me your phone number and the best time to reach you, as well as the animal IDs for your samples so that I can be better prepared for the discussion. My office phone is 573-882-3176 but I am not always in the office. I look forward to hearing from you and discussing your personal sample submissions.