

COW/CALF CORNER

The Newsletter

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Getting What You Asked For and Not Liking What You Get

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Americans have an enormous appetite for hamburger. By most estimates, ground beef consumption accounts for more than 50 percent of total beef consumption. Over the past few years, both the total demand for ground beef and specifically, the demand for lean ground beef have increased. The industry has responded by providing ever higher proportions of lean ground beef, in part, by using processing technology that includes lean finely textured beef (LFTB). LFTB uses a process to remove additional fat from beef trimmings to provide a very lean beef product. The product is produced in a lowered pH environment to inhibit potential bacteria growth. LFTB is a 100 percent beef product that is extremely safe and has been used for many years. Fueled by recent sensationalized and inaccurate media depictions of this product, some consumers have indicated that they do not want ground beef products containing LFTB. Certainly it is every consumer's right to decide if they wish to purchase a product or not but it is entirely possible that consumers may not like the consequences of rejecting this particular beef product.

In order to understand the implications of not using LFTB, it is essential to understand the realities of beef production and the mathematics of ground beef supply. Most of our beef supply comes from fed steer and heifer slaughter, nearly 27 million head in 2011. When fabricated into beef cuts, each of these carcasses produces several pounds of trimmings, some which are fatty trimmings that are, for example, 50 percent lean and 50 percent fat. These trimmings must have additional lean added in order to produce ground beef. Lean trimmings typically come from cull cow and bull slaughter that produces trimmings that average 90 percent lean and 10 percent fat. About 7.4 million head of cows and bulls were slaughtered in 2011, which means that the domestic supply of 90 percent trim is much smaller than the supply of 50 percent trimmings. This imbalance will be particularly acute given the anticipated decrease in cow slaughter in the next couple of years. These domestic lean trimmings are supplemented by imported lean beef products. Much of U.S. imports of beef from Australia and New Zealand is lean beef to supplement to supply of lean trimmings.

Typically, 50 percent (known as 50s) and 90 percent trimmings (known as 90s) are mixed in various proportions to produce ground beef. For example, a mixture of 35 percent 50s and 65 percent 90s results in ground beef that is 76 percent lean. However, the growing demand for lean ground beef means that more 90s are required in the market today. A mixture of 10 percent 50s and 90 percent 90s results in 86 percent lean ground beef, which is more common now. Thus the growing demand for leaner ground beef has simultaneously resulted in excess supply of 50s and increased demand for 90s.

Production of LFTB addresses both of those issues by using 50 percent trimmings and removing much of the fat to produce a very lean beef product. LFTB, which is roughly 95 percent lean, uses about two pounds of 50s to produce one pound of 95 percent lean beef. This makes it much easier to produce lean ground beef and use more 50s and less 90s as a result. For example, using

10 percent LFTB, combined with 11.25 percent 50s and 78.75 percent 90s produces 86 percent lean ground beef identical to the mixture of 10 percent 50s and 90 percent 90s described above. The difference is that the inclusion of LFTB uses over 200 percent more 50s and almost 13 percent less 90s to accomplish the same thing. LFTB puts the same lean beef that would likely end up in ground beef anyway into ground beef in a manner that uses beef more efficiently and results in a more economical product.

Rejecting LFTB will have consequences than many consumers will not like. First and foremost ground beef and especially lean ground beef will increase significantly in price as it will require more pounds of the more expensive 90s to produce ground beef. This may well contribute to the demise of the dollar menu at your favorite fast food hamburger chain...whether they use LFTB or not. This will also result in increased imports of lean beef, which may be a concern or a consequence that consumers do not like. Given concerns about rising food prices, growing global food demand and food security, we must use beef products in the most efficient manner possible. LFTB is sort of the modern equivalent of your grandmother boiling the soup bones to make beef stock. She could not afford to waste beef then and neither can we today. We have the lowest relative food prices in the world and the reason we do is because we utilize processes like LFTB to capture the maximum value of food production.

Using Artificial Insemination in Very Warm Weather

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The high temperature in Altus, Oklahoma on April 1st was 98 degrees F. (No April Fool's joke intended! It was just 93 degrees in Stillwater.) As the breeding season for spring calving herds is getting closer, understanding heat stress in cattle takes on increased importance. Producers that choose to synchronize and then artificially inseminate replacement heifers will begin the process in the next few weeks. If the hot weather continues or returns during the AI breeding season, some management and breeding alterations may be helpful.

For years, producers that bred artificially upon detected standing estrus (heat), would wait 12 hours before breeding the female in heat. If she was first observed in standing heat in the morning she would be inseminated that evening. If she was first observed in standing heat in the evening she would be inseminated the following morning. (This was called the AM/PM rule of artificial insemination.) New research at Oklahoma State University on the internal temperature of heat stressed cattle may cause us to re-think handling cattle in the evening.

Research with rumen temperature boluses has shown that the core body temperature of beef cows peaks at 2 to 5 hours after the highest daytime temperature. On a hot spring/summer day the highest daytime temperature is often late afternoon. Therefore the peak body temperature of cattle will occur at 6 PM to 11 PM. Elevated core body temperatures have been implicated from other research in reduced pregnancy rates in heat stressed cattle. Inseminating all cattle in the morning hours would avoid the heat stress of evening breeding. Some would be bred at first standing heat, others would be bred at the conventional 12 hours after standing heat. If the temperatures cool down during April and May, then using the conventional AM/PM program should be best. (Source: Pye, Boehmer, and Wettemann. 2011 Page 104; Abstract 285 http://adsa.asas.org/midwest/2011/Midwest_Abstracts_2011-revised.pdf.)

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