Lean Finely Textured Beef Fact Sheet
March 28, 2012

What are boneless lean beef trimmings (BLBT)?
When beef carcasses are processed into meat cuts consumers and restaurants use, trimmings result. Trimmings are smaller pieces of fat that contain small portions of beef that are wholesome and nutritious. To make BLBT, the trimmings are heated to about 100°F in equipment that looks like a large, high speed mixing bowl that spins these trimmings to separate meat from the fat that has been liquefied. The product is very low fat (95+% lean), which many consumers desire. This process is very similar to the one used to separate cream from milk. This lean beef can be added to other ground beef during the grinding process and is an excellent way to harvest additional lean meat and foster sustainable processes.

How is the product made?
It starts with fatty trim that is about 80% fat and 20% lean protein. These trimmings were sampled and tested by USDA for harmful bacteria before they arrive at the plant. The trimmings are heated it to about 100°F so that the fat will soften. Then it is spun in a big mixing bowl machine to separate the lean from the fat. The lean is then treated with a puff of ammonium hydroxide gas. This treatment has been one of the hot-button issues for this whole process. Ammonium hydroxide gas is not the same as the house-hold cleaner. The gas treatment raises the pH of the meat and destroys the bacteria on the meat. (Dead bacteria can't make you sick.) Essentially, the ammonium hydroxide makes the product even safer.

Is ammonia used to produce BLBT?
Food-grade ammonium hydroxide (basically ammonia + water), which has been declared safe by the Food and Drug Administration since 1974, is used to produce a number of products such as puddings and baked goods and can be used in the processing of boneless lean beef trimmings to control any harmful bacteria that may be present in the raw, fresh product. Ammonia is naturally occurring, found in the human body, beef, other proteins, and virtually all foods. It plays an important role in the body's nitrogen cycle and in helping the body synthesize the protein. It also maintains the pH level that the body needs.

Why is ammonium hydroxide used in processing a beef product?
A puff of ammonium hydroxide gas slightly raises the pH of a product and can destroy bacteria that could make someone ill if a raw product is not cooked thoroughly. The lean meat is then frozen rapidly. The USDA, after consultation with FDA, has determined that this use of ammonium hydroxide is safe. It is classified as safe by the U.S. Food and Drug Administration (FDA) and is approved in most other countries, including the European Union. When used for meat processing, ammonium hydroxide creates an environment that is unfriendly to pathogenic bacteria, such as E. coli O157:H7 and provides a significant food safety benefit.

How much ammonia is in beef or other foods?
Ammonia-based compounds are naturally occurring and can be found in every component of a bacon cheeseburger (bun, bacon, cheese, condiments, and beef). Between the naturally occurring levels and small amounts used for food safety, beef may have about 200 ppm. So, for the illustration, we've taken these amounts and multiplied by the weight of the typical bacon double cheeseburger to show the full picture.

- Bun - 2 oz = 50 mg (440 ppm of ammonia)
- Bacon - 1 oz = 16 mg (160 ppm ammonia)
- Condiments – 2 oz = 50 mg (400 ppm ammonia)
- Cheese – 1.5 oz = 76 mg (813 ppm ammonia)
- Beef – 3.2 oz = 40 mg (200 ppm ammonia)

Why is it necessary to use Lean Finely Textured Beef?
All types of lean finely textured beef are sustainable products because they recover lean meat that would otherwise be wasted. The beef industry is proud to produce beef products that maximize as much lean meat as possible from the cattle we raise. If this beef is not used in fresh ground beef products, approximately 1.5 million additional head of cattle would need to be harvested annually to make up the difference, which is not a good use of natural resources, or modern technology, in a world where red meat consumption is rising and available supply is declining.

Are these products regulated and inspected?
Yes. Lean finely textured beef is 100% beef and all beef products are strictly regulated and inspected by the U.S. Department of Agriculture (USDA). Inspectors are present in plants where these products are made every day to ensure that this product is produced in a safe and wholesome manner. During the two decades these products have been produced, they have had an excellent food safety record.

What do the experts say about its safety?
Experts such as Dr. Gary Acuff at Texas A&M University and Dr. John Floros at Pennsylvania State University have examined these products and say that all forms of lean finely textured beef are safe when produced in compliance with USDA regulations.

What do the food safety data show?
USDA data shows that the incidence of E. coli in fresh ground beef has been declining significantly over the past decade. The number of USDA ground beef samples testing positive for E. coli O157:H7 dropped 55 percent between 2000 and 2010. Lean finely textured beef products have been a part of that success story.

Is it true that these trimmings previously were only used for pet food and oil and were unfit for human consumption, as one media outlet claimed?
That statement is patently false. Beef trimmings are edible. No process can make an inedible product edible. What the process does is separate the lean meat from the fat, which was previously near impossible to accomplish through knife trimming by hand.

When any form of lean finely textured beef is blended into ground beef, will it be labeled?
Because it is 100% beef, LFTB is not singled out as a separate ingredient on ground beef packages.

Facts:
1. Ammonia and ammonium hydroxide exist naturally in our bodies and in meat.
2. Ammonium hydroxide is approved in most countries for food processing by agencies like the FDA.
3. When it is used in beef processing in the U.S., it is done under government inspection, through the USDA.
4. It is used to make beef safer.

About Beef Products, Inc.
Eldon and Regina Roth, together with their children, Jennifer and Nick, lead Beef Products Inc. They are recognized throughout the food industry for their food-safety innovations and commitment to making the highest-quality lean beef. Headquartered in Dakota Dunes, South Dakota, BPI maintains a Midwestern work ethic that stresses safety and quality in everything they do. The company has NEVER had a foodborne illness associated with their lean beef in over 30 years. In nearly 300,000,000,000 meals, they have been a recognized leader in food safety by groups such as the International Association for Food Protection. In 2007, the International Association for Food Protection awards BPI its highest honor, the Black Pearl Award due to BPI's commitment to food safety.