PREMIUM BLACK ANGUS BEEF™

January 5, 2016

At Creekstone Farms Premium Beef, we take a "Farm to Fork" scientific approach to control of E.coli 0157:H7 and other pathogens (such as Salmonella ssp.). This approach incorporates the USDA Best Practices for control as well as the use of Hazard Analysis Critical Control Point (HACCP) system to identify and control hazards within our production facility. This approach allows us to produce the safest possible product and minimize the potential for contamination with E.coli 0157:H7 and non-O157 STECS. Because we utilize "source traceable" animals, we can control many parts of the process that a traditional packer cannot control.

Animal Husbandry Practices

Our Natural "No Antibiotics Ever" and "No Growth Hormones Used" programs ensure that we purchase and process only the healthiest animals…those animals with the strongest immune response and thus able to fight off infections. This is due to the superior genetics of the Angus breed.

Natural animals are those raised on the least processed natural feedstuffs. This has been proven to reduce the potential for shedding of E.coli 0157:H7 and reduces the risk that the cattle will harbor this organism.

Prevalence Data – Feed Yards

Our cattle buyers review the plant prevalence data on a regular basis. Presumptive positive material are tracked back to the cattle in question and investigated by our cattle procurement staff.

Prevalence Data - Live Stock Hauling

Because of the potential for cross contamination between non-certified cattle and our superior cattle, all Live Stock Haulers are required to wash and sanitize their equipment prior to hauling the animals to our production facility. This removes a potential factor of contamination from our process. This has been proven in many scientific studies to minimize cross contamination between lots of cattle.

Live Stock Handling

Our livestock handlers are trained to handle cattle with a robust humane handling system. Our humane handling system was designed by the world's foremost expert, Dr Temple Gandin. Creekstone Farms is committed to handling cattle in a humane manner. This world class design allows for our plant to handle and process cattle with minimum of stress. Within this training, the livestock handlers are required to look for evidence of disease and report this to the USDA FSIS on-site veterinarian in charge for disposition. Cattle having symptoms of disease including high temperature or "downers" are not processed. The FSIS veterinarian oversees ante-mortem inspection on all animals to assure that no diseased animals are brought

into the facility. This insures that we do not process sick or dying animals in our facility. Between each load of cattle, our pens have an integrated washing system to remove potential cross contamination from manure between pens.

Hide on Wash System

Prior to opening cuts being made, each animal is washed with >180° hot water to remove dust, dirt and mud in our hide on wash cabinet. Our studies have shown that this wash system is essential in minimizing the potential for contamination on the hide to allow our process to work in a more efficient manner.

Hide Removal / Steam Vac

During hide removal, a specific pattern is followed with each and every animal. During the summer of 2013, this process was reviewed and improved upon with documented training materials as well as verification checks to ensure sanitary dressing. This reduces the risk of contamination on the carcass. The skinning devices are sanitized between each animal to prevent cross contamination. Opening cuts in bung area (anus and tail) are completed and the bung is bagged in plastic and tied off to prevent leakage from the intestinal tract. During the hide removal process a system of pattern steam vacuums (208°F) are applied by hand to contaminated and potentially contaminated areas to remove visible and invisible micro-contamination. This process is like a steam iron with vacuum attachment effective in killing up to a 7D reduction in target microorganisms on the surface of the carcass.

Pre-Wash Prior to Evisceration

Prior to entrance into the evisceration abattoir a system of hot water pre-washes is performed in a cabinet specifically designed to remove microbial contamination. This hot water cabinet is regularly checked during operation for water temperature, proper spray pattern and nozzle blockage. The surface temperature is a minimum of 165°F, a temperature that is immediately lethal to E.coli 0157:H7. This is applied using a high pressure wash cabinet with makeup water at 206° to 208°F. The dwell time in the cabinet is 10 seconds; give the hot water time to penetrate hard to reach surfaces. This system is a critical control point in our HACCP plan which studies have shown reduces the risk of E.coli 0157:H7 contamination. This process is validated on an annual basis using microbial testing to reduce up to 3 log E.coli.

Hot Water

After evisceration and sawing, a hot water rinse is performed on each carcass. The surface temperature is a minimum of 165°F, a temperature that is immediately lethal to E.coli 0157:H7. This is applied using a high pressure wash cabinet with makeup water at 206° to 208°F. The dwell time in the cabinet is 10 seconds; give the hot water time to penetrate hard to reach surfaces. This system is a critical control point in our HACCP plan which studies have shown reduces the risk of E.coli 0157:H7 contamination. This process is validated on an annual basis using microbial testing to reduce up to 3 log E.coli.

After grading, the carcasses are sprayed with a lactic acid rinse to assure proper coverage. The acid spray is monitored and documented to insure it is within the parameters of our validation. This process is validated on an on-going basis using microbial testing to reduce up to 1 log E.coli.

Hot Box and Cold Chain Control

The carcasses are chilled quickly to below 44° within 24 hours of kill. This further reduces the risk for E.coli up-growth during the chilling process. During the twenty-four hour chilling process, water sprays are sprayed to reduce the potential for microbial up-growth during the chilling phase. Carcasses are held for 40 hours to assure proper temperature control.

Sanitation Sprays Fabrication

After breaking and deboning, primal and sub primals are sprayed before bagging with a 360° acid mist to further reduce the risk of contamination. The acid spray is monitored and documented to insure it is within the parameters of our validation. This process is validated on an on-going basis using microbial testing to reduce up to 1 log E.coli.

Cold Chain Control Trim

All trim is required to be below the critical limit of 44°F and the quality action limit of 40°F prior to processing. Temperature is reduced with the use of mechanical refrigeration, carbon dioxide snow or pellets. This reduces the trim temperature to 40°F of below during the holding phase while the product is being tested for E.coli 0157:H7.

Pretesting Trim

All raw material used for the production of ground beef are required to have been tested and found to be negative for E.coli 0157:H7 to below detectable levels. In addition, testing for the new non O157 STECS (O26, O45, O103, O111, O121 and O145) began in the second quarter of 2012.

The raw materials undergo a robust sampling protocol (N=60) and are tested for E.coli 0157:H7 utilizing PCR methodology at an ISO17025 registered third party laboratory. To verify the sufficiency of the N=60 (robust) sampling methodology trim going into ground beef products will be tested to for E.coli 0157:H7 to below detectable levels. All associated products are placed in a test and hold until negative results are obtained.

Products testing presumptive positive will be labeled "For Cooking Only" and sold to a Federally Inspected establishment for further processing. The purchaser will be required to supply the three part cooking letter for our records.

Trends are evaluated on a daily basis for potential improvement in our system. Days with a higher incident rate or "High Event Periods" are handled as they occur in accordance with our written policy. This may require us from time to time to exclude combos that have initially tested negative from ground production or shipment.

Compliance with Notice 81-13

To establish the Conditions of Use for Beef products at Creekstone Farms Premium Beef LLC, the following policy has been implemented by our sales staff:

Customers who grind product (or other non-intact purposes) are required to purchase trim tested for E coli O157:H7. This product is for "Grinding Only" and the major muscles within this trim will be slashed to prevent dual usage of product.

Primal cuts which are not tested are to be utilized exclusively for steaks and roasts. This product is not tested for E coli O157:H7 and is not recommended for grinding or non-intact purposes. It is recommended that any bench trimmings produced from our products be designated "For Cooking Only".

In light of new USDA/ FSIS notice 81-13 and in reference to Directive 10010.1 we have revised our HACCP program to include the intended use of the individually vacuum packaged primal and subprimals. Creekstone Farms produces vacuum packaged and boxed primals solely for non-grinding and intact use only. We also produce boneless beef trimming and bulk primal trim as tested and passed destined for grinding and non-intact use such as needle injection and mechanical tenderized products per our Beef Conditions of Use policy.

If you have any other questions, please feel free to contact me at the phone below.

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