

Pasture-Raised Beef Production Protocols

1. Locally-Raised

- 1.1 All cattle must be raised and finished in North Carolina or the surrounding region, which includes counties in the four contiguous states of VA, TN, GA and SC and/or areas within a reasonable distance (150 miles or less) of participating processors.
- 1.2 Preference is given to cattle born in North Carolina and the surrounding region; when it is necessary to bring in weaned calves or cattle from elsewhere, animal identification procedures must be implemented to verify the origin and lifetime management record of the animals.

2. Farm Ownership

- 2.1 Firsthand Foods sources only from working, independent farms.
- 2.2 Working, independent farms are defined as individuals or families or partners who own their own animals, are engaged in the day-to-day management of the farm and its animals, and derive a significant share of their livelihood from the sale of livestock. This includes cooperatives or marketing groups as long as participating members are working independent farms.
- 2.3 Exceptions to the working, independent farm requirement may be permitted for farms that serve an educational purpose and comply with all production protocols.

3. Animal Identification

- 3.1 Individual animal identification will be maintained on every animal from birth through processing.
- 3.2 Each animal must be identified with an ear tag at birth. If not tagged at birth, calves should be tagged at the first handling and no later than weaning.
- 3.3 Each farmer must maintain data on each animal using an "Individual Animal Record." Required data related to veterinary treatments, a birth date (or birth date window for a group of animals), birthplace, sex, and breed(s).

4. Animal Origin & Traceability

- 4.1 Each animal sold to Firsthand Foods must be home raised from the time they are calves, or, if purchased, the farm of origin must be identified and demonstrated to adhere to Firsthand Foods' protocols.
- 4.2 Records must be kept indicating the date of birth of each animal, or if individual birthdates are not available, a birth date window for a group of animals is acceptable. Individual animal identification will be maintained on every animal as

- soon after birth as is possible, and throughout the production cycle. In the case an animal loses its individual identification tag, it should be replaced immediately to prevent the loss of identify.
- 4.3 Prior to slaughter, producers must fax, or email a Firsthand Foods Traceability form, which confirms the individual animal ID #s and (if provided) the ID #s used at the processor, the birth date, sex, breed(s), and live weight of each animal.

5. Animal Age

5.1 Each beef sold to Firsthand Foods must be less than 30 months of age at the time of slaughter. If the animal is deemed to be older than 30 months by both the inspector and a state veterinarian, the producer is liable for associated losses and required waste disposal.

6. Growth & Disease Management

- 6.1 Veterinary treatments, such as vaccinations and worming, must be recorded on group or individual animal record(s) and must be available for review at any time.
- 6.2 Cattle CANNOT be administered hormone implants or be fed sub-therapeutic, growth-promoting antibiotics.
- 6.3 Producers are encouraged to keep animals healthy by using internal and external parasite control, a vaccination program, and to use a sound preventative health program including adequate vitamin and mineral supplementation. Producers will use only FDA approved products and will keep records of all animal treatments (including internal and external parasite control, vaccinations, and other necessary treatments).
- 6.4 Coccidia control products, including ionophores (i.e., Rumensin and Bovatec) and amprolium can be used only to treat or strategically prevent outbreaks of coccidiosis and may not be used throughout the growth and finishing phase for the intention of growth promotion.
- 6.5 If an animal should become sick such as with pink eye or foot rot, we encourage producers to treat it, including with antibiotics if deemed necessary. All treatments must be recorded.

7. Beef Quality Assurance Certification

7.1 Producers must be certified in the North Carolina Beef Quality Assurance Program (BQA) and adhere to all BQA guidelines, including strict adherence to slaughter withdrawal times on vaccinations, de-wormers, and other necessary health . Details on the NC BQA program can be found at: http://www.nccattle.com/ncbqa.html.

8. Animal Handling

- 8.1 Keeping animals as calm as possible while interacting with them is critical to the animal's welfare and ultimately the quality of the meat.
- 8.2 Farmers must use low stress handling techniques in their daily work and while loading and transporting animals.

9. Animal Housing

- 9.1 Animals must be housed on annual or perennial pasture for their entire lives.
- 9.2 Pastures must be maintained with at least 75% forage plant cover.
- 9.3 Any confinement to non-pasture areas will be limited to a one-week weaning period, and for incidental holding.
- 9.4 During times when hay must be fed, cattle should be maintained on dormant pastures, and the feeding location should be rotated to prevent manure and mud build up. Sacrifice pastures (which may have less than 75% ground cover) may be used in times of drought or other emergency disruption of the pasture supply, but their use should be minimized, and a grazing plan should be in place describing how sacrifice areas will be managed for recovery.

10. Pasture Management

- 10.1 All producers must use a production system where growing and finishing animals derive a majority of their feed from pasture or harvested forages, and where supplementation with concentrate is such that upset of normal ruminal metabolism is unlikely.
- 10.2 All producers are asked to develop and implement a pasture management plan that considers; a) a sustainable stocking rate to minimize supplemental feeding, b) an assortment of forage types (e.g., summer and winter annuals mixed with perennials) and/or forage management strategies to provide an extended grazing season, and c) a conservation plan that protects pasture condition and minimizes impact on surface and ground water.
- 10.3 Producers must provide as much high quality forage as is feasible with harvested forages limited as much as possible.
- 10.4 Pastures that house brood cows should be managed such that milk production is adequate and body condition is maintained resulting in moderate to high growth rate in calves.
- 10.5 Creep grazing or forward grazing of calves ahead of cows is allowable and encouraged where feasible. Intensive rotational grazing is considered the best system to maintain desired calf performance.

11. Feeding & Nutrition Program

- 11.1 Mineral supplements meeting University recommendations will be offered to cows and calves at all times.
- 11.2 No supplemental creep feeding will be offered to nursing calves.
- 11.3 To achieve product quality, cattle need to be gaining weight throughout their lives, thus producers need to be focused on providing abundant, high quality forages at all times. To achieve the target weight and degree of finish at a reasonable age, cattle should gain from 1.5 to 2.5 lbs/day from weaning to yearling stage and from 1.5-3 lbs/day during finishing.
- 11.4 Supplemental feeds may not be fed in confinement but must be fed on well-managed pastures as indicated above.
- 11.5 Consistently short supplies of pasture and/or overgrazing because of too high stocking rate in average years is prohibited.
- 11.6 Cattle may not be fed ANY animal by-products at any time.

11.7 Cattle may not be fed medicated feed.

12. Approved Supplemental Feeds

- 12.1 If necessary, in tandem with a well-managed forage program, supplemental feeding with concentrates is allowed. Two types of feed are allowed, including high-fiber and starch containing concentrates. Feeds high in fiber are not associated with disrupting the rumen and include hay or haylage made from small grains (oats, wheat or barley) and processed roughage products such as soybean hulls. Starch containing small grains (e.g., oats, barley and wheat) or byproduct feeds are allowed but must be fed at very low rates in order not to disrupt the rumen. (See below for additional information.)
- High Fiber Concentrates -- The approved rate of supplementation within a well-managed forage program for high fiber concentrates is 0.5% of body weight from weaning to yearling age and 1% of body weight from yearling to finish (dry matter basis). Examples of common High Fiber Concentates/Ingredients: Brewer's Grains, Corn Gluten Feed(wet or dry), Distiller's Grains(wet or dry), Soybean Hulls, Soybean Meal and Whole Cottonseed. EMERGENCY: If necessary during extreme weather conditions and poor pasture quality (e.g., drought), cattle may be fed approved non-starch supplements at a higher rate for a short period of time. The amount, during emergency situations, is 1% of body weight from weaning to yearling age and 1.5% of body weight from yearling to finish (dry matter basis).
- 12.3 **Starch Containing Concentrates** The approved rate of supplementation within a well-managed forage program for grains or byproducts containing significant levels of starch is 0.5% of body weight. Examples of common Starch Containing Concentrates/Ingredients: Corn, Corn Silage, Oats, Barley, Wheat, Molasses and Wheat Middlings.
- 12.4 **Corn Silage** Corn Silage contains approximately 65% moisture(35% Dry Matter-DM) and is made up with the whole corn plant(ear of corn, stalk, etc.). Corn Silage is permitted under Firsthand Foods Standards. Please keep in mind, because of the high moisture content, the amount fed per day should be converted to DM (as with all high moisture feeds). Ex: 1000 lb. animal receiving 0.5% of BW corn silage can be fed 5 lbs. DM or 14 lbs. As-Fed (wet)...assuming 35%DM. An example supplement program utilizing corn silage under Firsthand Foods Standards for a 1000 lb. animal: 14 lbs. corn silage (As-Fed)0.5%BW + 5 lbs. Soybean Hulls 0.5%BW and quality pasture.

13. Target Weight & Finish

- 13.1 The target live weight for animals should be 1,200-1,300 pounds.
- 13.2 All animals will be delivered only when they are "finished" as determined by visual characteristics such as the amount of fat in the brisket, fat cover over the ribs and rump, and flatness across the top of the back. Body condition scoring will help make this determination and most animals should be at least a body condition score of 6.5
- 13.3 In terms of meat quality, producers should aim to achieve at least the equivalent of a low choice quality grade.

14. Delivery of Finished Animals

- 14.1 Each farmer is required to give at least 4 weeks notice to Firsthand Foods if there is a change in the farmers' "Production & Delivery Plan."
- 14.2 Firsthand Foods will contact Producers one week ahead of delivery to confirm scheduling.
- 14.3 Cattle will be delivered in good condition to an approved processor. Producers are advised to haul the animals themselves, but if they are transported by a third party, this party should be BQA certified.

15. Payment

- 15.1 Payment rates are determined prior to the animal leaving the farm. Payment is based upon the animal's hanging weight as determined at the processor.
- 15.2 Producers should verify the hanging weight of each animal and invoice Firsthand Foods (hanging weight x payment rate).
- 15.3 Payment rates vary and are determined and set annually.

16. Communication, Engagement & Ongoing Education

- 16.1 All producers are required to communicate regularly with Firsthand Foods and are encouraged to utilize email unless other arrangements are made. Firsthand Foods will visit each farm a minimum of once per year.
- 16.2 Producers are required to attend at least one Firsthand Foods' producer network meeting per year to discuss production protocols & company policies.
- 16.3 Producers are asked to participate in the development of marketing materials and consumer outreach events on an as needed basis.
- 16.5 Producer affidavits must be updated annually with signatures stating that farmers follow Firsthand Foods' protocols.

Additional Information Regarding Supplementation

Firsthand Foods allows supplementation only in tandem with a well-managed forage program. Supplementation can be an important tool for NC cattle producers striving to finish cattle in a timely and profitable manner, especially when the forage base is insufficient to support adequate daily gain. This can be a particular issue in the Piedmont region of North Carolina during the hotter months due to the prevalence of endophytic fescue. Supplements must either be grown on the farm or be locally-available, preferably by-products of the agricultural industry that would otherwise be considered waste and put in landfills. Selected supplements must first be approved by Firsthand Foods and must be fed judiciously and at rates that do not disrupt healthy functioning of the rumen. High-fiber concentrates, (e.g., soyhulls) may be fed at 0.5% of body weight per day from weaning to yearling age and 1% of body weight from yearling to finish (dry matter basis). Starchcontaining supplements (e.g., barley, oats and wheat) must be fed at no more than 0.5% of body weight per day from yearling to finish (dry matter basis).