**NC State Local Grass-Fed Beef Production Guidelines**

*These guidelines have been made available to producers to edit as needed. NC State University and North Carolina Cooperative Extension do not endorse changes made to the original guidelines.*

**Guidelines at a glance:**

1. **Animals remain on pastures their entire lives.**
2. **No hormone implants are used.**
3. **No growth-promoting antibiotics are fed.**
4. **Animals are of known age and origin.**
5. **Individual identification is maintained throughout the life of the animal.**
6. **Producer is certified in the North Carolina Beef Quality Assurance Program.**
7. **Production system emphasizes use of high-quality pasture and stored forages with minimal use of concentrate supplements. More than 95 percent of the animal’s diet between weaning and finish is from grazed or harvested forages. This means the average animal would receive no more than 500 pounds of concentrate supplement (as described here) during growing and finishing (subject to the daily feeding restrictions given below).**
8. **Supplementation is allowable at up to 0.5 percent of body weight from weaning to yearling, and at up to 1.0 percent of body weight from yearling to finish, but the number of days fed is restricted by the total feeding limit.**
9. **When supplements are used, they primarily include low-starch ingredients that are balanced to meet the nutrient requirements of the cattle.**
10. **Ingredients containing significant amounts of starch or sugar are used only as a limited portion of the concentrate supplement.**
11. **No animal byproducts are fed.**

**Animal housing**

Under this protocol, animals must be housed on annual or perennial pasture for their entire lives. Pastures will be maintained with at least 75 percent forage plant cover. Any confinement to nonpasture areas (a pen or lot) must be limited to a one-week weaning period and for incidental holding, such as pending shipping or processing. When harvested forages must be fed, cattle should be maintained on dormant pastures, and the feeding locations rotated to prevent manure and mud buildup. Producers can use well-designed and established heavy-use areas instead of rotating feeding sites, but they should maintain these areas and remove built-up manure and spread it on pasture. Sacrifice pastures (which may have less than 75 percent ground cover) may be used during droughts or other emergency disruptions of the pasture supply. But their use should be minimized, any damage due to feeding should be corrected, and the pastures should be allowed to rest until healthy growth is restored.

**Use of implants, growth-promoting antibiotics, parasite control, vitamin/mineral supplements, and vaccines**

Under this protocol, cattle will not receive hormone implants or be fed growth-promoting antibiotics. Producers are encouraged to keep animals healthy by using internal and external parasite control, by following a sound preventative health program that includes a well-designed vaccination program, and by using adequate vitamin and mineral supplementation. Producers will use only FDA-approved products and will keep records of all animal treatments (such as internal and external parasite control and vaccinations).

Coccidia control products, including ionophores (that is, Rumensin and Bovatec) and amprolium, can be used only to treat or strategically prevent outbreaks of coccidiosis and may not be used throughout the growing and finishing phase to promote growth. Animals that become sick with common diseases such as foot rot, pinkeye, or pneumonia should be treated with an appropriate antibiotic under the guidance of a veterinarian. Withdrawal times must be strictly followed. This is one of the basic principles of the Beef Quality Assurance Program.

**Animal origin and animal identification**

Animals will be home raised from the time they are calves or, if purchased, their farm of origin must be identified. The farm of origin must also adhere to these production guidelines. Records will be kept indicating the date of birth of each animal or, if individual birth dates are not available, a birth date window for a group of animals is acceptable. Animals will be considered “local” by most North Carolina consumers if they are born or raised in North Carolina or in an adjoining state. *Note: "Local" is not a supportable "label claim," but putting the address of the farm of origin and using point of sale signs stating the farm’s address is an acceptable approach. Producers who want to participate in the “Goodness Grows in North Carolina” marketing program maintained by the N.C. Department of Agriculture & Consumer Services Marketing Division can refer to* [*http://www.gottobenc.com/become-a-member/member-benefits/*](http://www.gottobenc.com/become-a-member/member-benefits/)*.*

Individual animal identification should be maintained on every animal as soon after birth as possible and throughout the production cycle so that the animals can be tracked back to the farm of origin. If an animal loses its individual identification tag, the tag should be replaced immediately to prevent loss of identity. It is strongly recommended that producers use a secondary form of identification such as a second ear tag or a tattoo to prevent loss of identity. ***This is especially important if animals eligible for this program are comingled with animals that are not.***

**Beef Quality Assurance certification**

All farms marketing under these guidelines must have current certification in the North Carolina Beef Quality Assurance Program (BQA) and adhere to all BQA guidelines, including strict adherence to slaughter withdrawal times for vaccinations and other necessary health treatments. Details on the NC-BQA program can be found at: <http://www.nccattle.com/ncbqaprogram.aspx>.

**Forage and feeding program**

The intent of these feeding guidelines is to maintain a system in which growing and finishing animals derive more than 95 percent of their feed from pasture or harvested forages. When the quantity and quality of forages is inadequate to achieve the desired level of performance, supplemental feeds may be used. But daily feeding levels will be restricted as detailed below, and total supplemental concentrate will not exceed 500 pounds for the life of the animal.

The production system will provide as much high-quality pasture forage as possible with as little harvested forage as possible. Calves will not receive free-choice concentrate creep feed. However, creep grazing or forward grazing of calves ahead of the cows is allowable and encouraged when feasible. Rotational grazing will be the best system to maintain desired calf performance. Mineral supplements meeting university recommendations should be offered to cows and calves at all times. Mineral recommendations for our area can be found at: http://extension.uga.edu/publications/detail.cfm?number=B895#SelectingaMineralSupplement.

With well-managed pasture and average or better growing conditions, supplemental feeding is not needed or recommended. However, during droughts or other emergencies that restrict the quality of forage available, supplemental concentrates may be used as long as the total level will not exceed 500 pounds during the life of the animal and is subject to daily feeding limitations.

Supplemental feeding should not exceed 0.5 percent of body weight (dry matter basis) between weaning and yearling age. After that, cattle may be fed concentrate at up to 1.0 percent of body weight. Supplements may be a single source (for example, soybean hulls), or a mixture of ingredients (see ingredient lists below). Feeds in Category 1 are high in fiber and are unlikely to cause upset of the ruminal environment when fed at no more than 1 percent of body weight. Grains or byproduct feeds with significant levels of starch or sugar are allowable but should be fed at no more than 0.5 percent of body weight to prevent ruminal upset.

Because concentrates or harvested forages will not be fed in confinement, they must be fed on well-managed pasture as indicated above. For the purposes of these guidelines, silages with mature grain (corn silage) are considered starch-containing feeds, while hay or haylage made from small grains (oats, wheat, or barley), silage from forage-type sorghums, and processed roughage products including cottonseed hulls, peanut hulls, alfalfa cubes, or alfalfa pellets are considered harvested forages.

To achieve desirable product quality, cattle need to gain weight throughout their lives, so producers should focus on providing abundant, high-quality forage at all times. When that is not possible, they should supplement appropriately to keep animals gaining at least 1.0 pound per day. To achieve target weight and degree of finish at a reasonable age, cattle should gain from 1.0 to 2.0 pounds per day from weaning to yearling, and from 1.5 to 3 pounds per day during finishing.

When supplies of pasture are consistently short and there is overgrazing in average years, it shows that the stocking rate is too high, which is strongly discouraged. Stocking rates must be adjusted to fit expected forage availability over time. When harvested forage — either hay or silage — is fed, it needs to be of high quality to maintain desired growth rates. In general, most producers are advised to harvest cattle at a body condition score of at least 6.5 on a 9-point scale and at an age of no more than 30 months.

For additional information on maintaining performance in a high-forage system see:[***https://www.uky.edu/Ag/Forage/ID224-Final.pdf***](https://www.uky.edu/Ag/Forage/ID224-Final.pdf)***.***

**List of suggested feed ingredients**

The following list of feed ingredients is divided into two categories. The first includes byproducts or protein meals that have a low level of starch or sugar. Feed ingredients high in starch result in more acidity in the rumen and reduce forage utilization compared with low-starch ingredients. Ingredients in Category 1 can be used as all or part of the concentrate mix.

Feed ingredients in the second category contain substantial levels of starch or sugar and should be limited to no more than 0.5 percent of body weight. When a higher level of supplementation is needed to achieve desired growth rates, the additional concentrate should be composed of ingredients from the low-starch category. Cattle should not be fed animal byproducts at any time. Self-limited supplements containing nonprotein nitrogen (urea) may be fed, but they generally only improve performance slightly due to their low level of intake.

It is important to understand forage quality and the composition of supplemental feeds in order to develop a balanced ration that will achieve the desired growth rate in a grass-fed system. **Also, because some of these feeds are high in moisture, it is important to formulate on a dry matter basis to eliminate the diluting effect of the water in high-moisture feeds. *The ingredient lists are not exhaustive and may include other concentrates with similar nutritional characteristics.***

**Category 1. Low-starch concentrate ingredients.**

Brewer’s grains
Commercial beef concentrate that does not contain grain products (nonmedicated)
Citrus pulp
Corn bran
Corn gluten feed, wet or dry
Cottonseed meal
Distiller’s grains, wet or dried with solubles (DDGS)
Peanut meal
Soybean hulls
Soybean meal
Wheat bran
Whole cottonseed

**Category 2. Moderate- or high-starch or sugar ingredients.**

Commercial beef concentrate that contains grain products (nonmedicated)
Corn
Corn silage
Oats
Barley
Wheat
Cookie meal (bakery byproducts)
Molasses
Hominy feed
Grain screenings
Wheat middlings, or mixed flour byproduct

Producer affidavit:

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**From: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**TO WHOM IT MAY CONCERN**

This affidavit confirms that I raise my animals in accordance with the attached production protocol (NC State Local Grass-Fed Beef Production Guidelines). Here are the primary features:

**Grass-Fed—**Our production ensures that forages make up at least 95 percent of the feed animals receive after weaning.

**Pasture-Raised**—We raise our animals on pasture their entire lives on land that continually has at least 75 percent forage plant cover. Our production system makes the best use possible of high-quality forages.

**Raised Without Feeding Animal Byproducts**—Supplements are 100 percent vegetarian and do not contain animal byproducts.

**Raised Without Growth-Promoting Antibiotics**—We raise our animals without the use of routine growth-promoting antibiotics. When an animal gets sick, such as with foot rot or pinkeye, we treat with antibiotics or other necessary pharmaceuticals to help our animals recover, and we follow all required withdrawal periods.

**Raised Without Added Hormones**—Our cattle do not receive hormone implants.

Sincerely,