Nomination of **Beaver Creek Farm** for
the 2013 Environmental Stewardship Award

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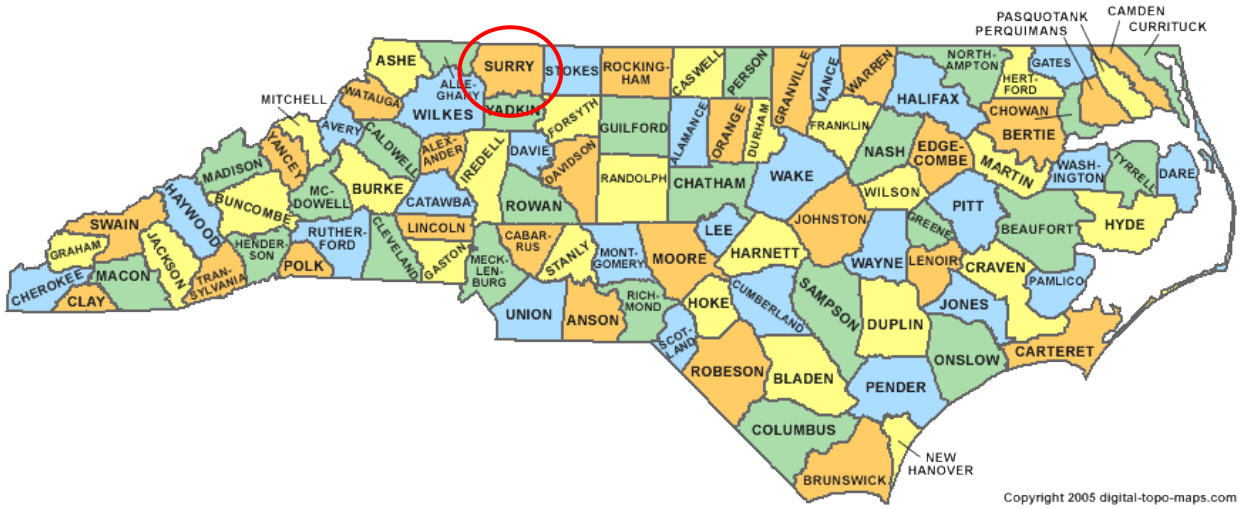
SECTION I.
Farm information.

- Owners: Mike and Jean Jones
- Address: Beaver Creek Farm
  593 Johnny Bowman Road
  Mount Airy, North Carolina (Surry County)
  336-374-5844
  bcangus@surry.net



Beaver Creek Farm is located in Surry County in northwestern North Carolina. It was purchased by Mike and Jean Jones in 1974 and consisted of 57 acres at the time of purchase. Additional land has been gradually added. At present, the farm consists of 190 acres split nearly in half between pasture and woodland (100 acres and 90 acres, respectively). The wooded areas are early succession cut-overs and serve as buffers and wildlife habitat on the farm.

Animal resources. Five Shorthorn/Angus heifers were purchased in 1975 and served as the genetics base for the farm for many years. Various crosses were made with Hereford and Angus sires. Cattle were grazed continuously on available pastureland and hay was harvested whenever possible, although hay quality was often minimal because of weather and other growing season challenges. This foundation herd was sold off in 1998 and no cattle were on the farm for over 2 years. In the fall of 2001, five black Angus-based cattle arrived and then in 2002, the first

registered Angus cow/calf pair was added. These purchases were followed by a registered Angus bull in 2003. Additional cattle purchases and retention of calves has brought the herd to its current numbers of 20 to 30 cow/calf pairs plus replacement heifers and calves being finished for marketing in the grass-fed niche. Jones' currently market 12 head of cattle per year as freezer beef, with most of the meat sold locally by word of mouth.

Farm terrain and botanical composition. There are 9 hills on the farm, which can present the challenges of runoff and erosion in major rain events. The upland is very rocky and the soil gravelly. In the pastures, grasses provide soil protection so efforts are made to avoid over-grazing and exposing bare soil to the weather. Pastures have traditionally been cool season species common to the area, tall fescue as the primary species with perennial clovers, bluegrass, and orchardgrass mixed in.

Hilly terrain presents challenges

Cow grazing cool season pasture

Water resources. The farm contains 5 small, unnamed creeks and is privileged to boast 900 ft of frontage on the Fisher River and 7500 ft of frontage along Beaver Creek.

Farm interaction with outside agencies. The following agencies have participated in planning and implementation of conservation and stewardship practices:

- Surry County Soil and Water District
- Surry Cooperative Extension (Bryan Cave, Director)
- Surry County Cattlemen's Association
- North Carolina Forage and Grassland Council
- North Carolina Cattlemen's Association
- North Carolina State University
- Natural Resources Conservation Service

SECTION II.

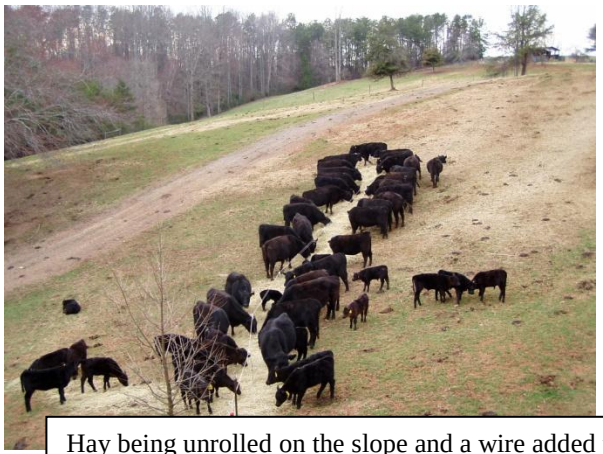
Stewardship practices and achievements. Care for land and water resources have played a key role in the development of daily operations at Beaver Creek Farm. Many improvements in management style and physical resources have been made since operations began in 1975. As previously mentioned, the original herd of cows was continually grazed, as is typical in NC. Hay was harvested off the land when weather and forage supplies permitted. The hay was then stored and fed back to the cattle when pastures became depleted or snow covered the ground. This strategy required considerable fuel and equipment expenditures.

Mike and Jean have learned that cattle can do an effective job of harvesting the forage for themselves in all kinds of weather, so they no longer harvest forage for hay on their land. When hay is needed, it is purchased.

Cattle formerly received hay each time it snowed

Cattle currently forage for themselves in many snow events

The Jones' have also learned that if you have to feed hay, how you feed it matters. Unrolling the bales, instead of feeding it from trailers reduces stress on the land and allows the pastures to recover from hay feeding more easily. It also improves manure and urine distribution on the land, improving soil fertility and possibly reducing the need for chemical fertilizers. When it was no longer needed, haying equipment was sold in the spring of 2011.



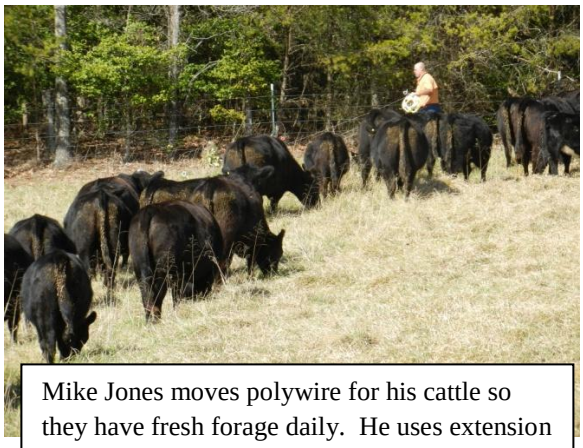
Hay being unrolled on the slope and a wire added to prevent trampling and waste (left, above) and the same slope the next spring with no signs of damage (right, above)

Numerous efforts have been made to improve land, water, and equipment resources at Beaver Creek Farm. Up until 2002, cattle had free access to surface water on the farm. They drank from creeks and rivers and were allowed to stand in waterways. The small creeks suffered from the damage cattle can do. In 2002, 3000 feet of easement was donated from the farm for the restoration of Beaver Creek. This was followed by an EQIP cost share project (also in 2002) to install 6 permanent drinkers for the cattle and fencing to keep them out of surface waters. Once the cattle were prohibited access, the creek beds healed themselves, improving water quality and making habitat more pleasant for wildlife. Money from the sale of hay equipment was used to add additional drinkers. There are 20 on the farm now plus Mike uses 2 temporary drinkers on pastureland he rents. He keeps cattle out of surface waters even when he does not own the land.

One of the permanent drinkers installed at Beaver Creek Farm.

Cattle access clean drinking water at a drinker instead of from a creek.

"Rotational grazing" officially began on the farm when the permanent drinkers were installed. Mike and Jean began using polywire to subdivide their pastures and get more efficient use of the available forage. Mike makes daily walks to move the wire so the cattle get fresh forage every day. Walking means Mike avoids starting any gas- or diesel-powered vehicles, which saves money and reduces pollution (and he gets some exercise). He says, "I haven't cranked the tractor to feed my cattle all season!" They stockpile cool season forage growth beginning in August and then graze it off over the winter. There is normally enough forage to last until spring growth begins.



Mike Jones moves polywire for his cattle so they have fresh forage daily. He uses extension cord reels to store his wire.

Cattle at Beaver Creek Farm graze on a fresh allocation of grass (January 21, 2012)

Work is underway to incorporate some native, warm-season grasses as alternative to the existing endophyte-infected fescue for improved summer grazing. Pasture renovation has been done with soil conservation in mind. The cool season pasture was killed and then no-till overseeded with annual ryegrass. Once the ryegrass was grazed off, it was also killed and finally the native grass planted. Seeding was done with a no-till drill so the soil was never "naked". Mike and Jean have seeded 25 acres with either a big bluestem and indiangrass mix or Eastern gamagrass. They are currently in their fourth year of grazing the gamagrass.

A pasture of gamagrass nearly ready to graze.

Cattle enjoying indiangrass and bluestem mixed pasture.

Pastures are seldom, if ever, clipped. Mike and Jean have found that cattle will consume plants that were once considered to be weeds. If the plants are not consumed, the cattle trample on them, killing them back, and allowing them to contribute organic matter to the soil.

Soil health is important to Mike and Jean. They began taking soil samples from their land in 2005 and have done so every other year since that time. Results from early soil tests indicated the soil was acidic (pH 4.5 to 5.7) and had relatively low cation exchange capacity (CEC), a measure of the soil's ability to hold nutrients. By adding lime, poultry litter, and fertilizer to the soil, pH was raised to 6.4 to 6.9 and CEC increased from 5.0 to the 11.2 to13.0 range. Phosphorus index was improved from below 1 to the 36 to 179 range and the potassium index was raised from about 40 to the range of 78 to 120. By keeping a check on soil tests, fertilizer can be added to meet pasture needs, avoiding excesses and the chance for nutrients to leach into surface or ground waters, while at the same time saving money by not paying for nutrients that are not really needed.

SECTION III.

Past honors. In 2010, Mike was honored by the Soil and Water Conservation Society (Hugh Hammond Bennett Chapter) and received the Conservation Steward Award for that year.

In 2011, Mike began working more closely with the Natural Resources Conservation Service by participating in the Conservation Stewardship program. He received a wildlife habitat improvement cost share for planting big bluestem and indiangrass. He plans a prescribed burn in early 2013 on 45 acres to improve small animal habitat on his farm.

Mike also frequently shares innovations with other farmers in Drovers magazine in the "Profit Tip" section. By doing so, he promotes grazing with his "can-do, it's really not hard" attitude. One of the innovations Mike shared is a storage rack for his fencing equipment (photo to right). This idea won the Best Innovation of 2012 award.

Educational outreach. Mike has hosted 3 winter grazing workshops over the years. By doing so, he encouraged his neighboring beef farmers to practice good stewardship and to implement improved pasture management. Nothing teaches a beef farmer like another beef farmer. By allowing guests on the farm, Mike helped spread the "gospel of amazing grazing".

Mike Jones (in distance, by woods) demonstrates the simplicity of moving polywire to fellow beef farmers during a winter grazing workshop. (1/21/2012)

Mike chats with fellow farmers about how pasture management has benefited his land, his cattle, and his bottom line. (1/21/2012)

Looking to the future. Mike and Jean will continue to manage their farm with environmental stewardship in mind. Their motto is, "Stewardship of the environment comes first and its bonus is delicious beef." Mike and Jean feel it is important to lead by example. Some of the stewardship accomplishments they are most proud of are:

- Over 2 miles of streams and other surface waterways have been excluded from pastures.
- Nearly half of their land is dedicated to wildlife habitat. Mike says of his farm, "This is a predator friendly operation. Wildlife habitat is a very important and planned part."
- Adding warm season native grasses to their traditionally fescue pastures has improved cattle performance and increased biodiversity on their farm. Efforts in this area will continue.
- Protecting the soil by not overgrazing the pastures. Mike says, "If your pasture is like a parking lot, you have no chance." Mike and Jean have learned to protect their soil by giving their pastures plenty of rest between grazing periods. Mike writes, "More water is retained, soil microbes get fed, organic matter gets added to the soil, and there is less runoff in rain events. Fertilizer need has gone to zero in some places."
- Maintaining an "open door" policy for anyone who wants to come see their operation and learn about the advantages of grazing for environmental stewardship and farm profitability.

Mike and Jean look forward to many more years of raising beef cattle and using their stock to help manage the resources on their farm. They continually seek out ways to improve their stewardship, paying attention not only to their cattle, but also to the visible and invisible wildlife species their farm hosts. Mike and Jean value both fauna and flora. Any visitor to Beaver Creek Farm will find it to be not only productive from the beef perspective, but also a place of environmental beauty and peace.