By Dennis Jones:

Each of the four VFGC Winter Forage Conference sites in 2014 featured talks from local forage producers. C.J. Isbell of Keenbell Farm filled that spot on the agenda at the Blackstone session. C.J. is the third generation of the Isbell family to farm this Hanover County land. Established in 1951 by Joe Isbell, fresh out of the Navy, the farm originally produced eggs and had a 3 day-a-week delivery route in Richmond, and sold to the Virginia Dairy. Most of the farm at that time was wooded.

In the 70’s the farm started a farrow to finished swine operation, maintain a small cattle herd, and cash hay business. When the swine market went away in the 80’s they focused more on the cattle and grain farming, opening up more of the farm for cropland. In 1998 Joe Isbell retired and rented the farm to local grain producers, but maintained a few cattle. Low grain and cattle prices sent C.J. far off the farm to a public job, although he has continued with cattle and hay on weekends is currently 50% owner of the cattle at Keenbell Farm.

Since 2005 the next generation, CJ and his family, with support of the prior generations, have been reducing the acreage rented out and renovating Keenbell Farm. MaxQ and Persist Orchard grass has been established in the horse pasture, water and fence systems were built to control grazing. Farm products are now beef, poultry, pork, and eggs, all the livestock is grass feed, hormone and synthetic input free. The farms products are marketed a variety of ways. You can purchase by phone or internet, by visiting the on-farm store, through their Buyers Club at the Richmond online farmers market-Fall Line Farms, in local grocery stores, or through the Local Roots Food Coop out of Goochland.

Keenbell has been as innovative with their forage program as the marketing. CJ stated, “Our goal is to maximize forage production with livestock as my primary management tool.” In order to control the livestock he has divided 100 acres of perennial pasture into 5-10 acre permanent paddocks using high tensile fencing. A water system was installed that pipes water to fence line troughs, each serving two paddocks. Quick couple risers are installed along the water lines as they run to the permanent water stations allowing flexibility to subdivide paddocks as needed. Poultry follow the beef cattle as they rotate through paddocks. “The poultry help disrupt the parasite life cycle by breaking apart manure piles and eating larva living in the piles.”

Another 30 acres are planted to annuals each year to supplement perennial pastures in the summer and winter. Mixtures of 7-12 cool season or warm season forage species are planted each spring and fall. Spring plantings include sorghums, sudan grass, corn, sunflower, alfalfa, cowpeas, clovers, lespedeza, millets… Fall mixtures include wheat, rye, forage radish, clovers, turnips, triticale, barley, oats… Typically spring seeded mixes are grazed 2-3 times through the summer, fall seeded annuals can often be grazed once in fall, then twice after stockpile pasture plays out. When asked about making and feeding hay, CJ said, “we do make and keep about 60 days of hay on hand, but our goal is to graze 365 days. I hate for us to go out and start the tractor to make or feed hay, the cattle can do it so much more efficiently. We are working toward grazing everything and finding a source of good quality, reasonably priced hay to purchase off the farm.”

How all these components come together was explained by CJ, “first we use the 50-50 approach, graze 50% and leave 50%, this helps the forages re-grow faster, feeds the critters that cycle nutrients in my soil, and maintains organic matter in the soil profile. This approach keeps our soil working for us. We aim to move cattle daily. Cattle go into a new paddock and poly-wire with step-in post is used to allocate what looks like 24 hours of feed. This is where the water system pays off, with water in every paddock and several sites in each to pull water from; we’re not limited to one or two divisions. You really have to develop an eye for allocating the forage and always be prepared to adjust.

We graze perennial pastures in spring and summer; then fill in the wholes with the warm season mixes when cool season forages shut down. Then we get back on perennial re-growth and stockpile in the fall. Next we go to cool season mixes when the stockpile runs out. Hopefully this gets us to the spring flush of perennial pasture. This past fall the cool season annuals were a bust, we had a dry fall and they just didn’t grow, so we are feeding hay. Like I said, always be ready to adjust. The poultry clean up behind the cattle and work nicely into the system. The pigs are something that we are still trying to figure out. We need better infrastructure than the farm has now for pigs, they need more acres, better fence, and different water facilities. There is certainly market for the pork, so we will keep working with them.”

As CJ stated in his talk at the VFGC Winter meeting, he is a fire fighter and works 24 hours on, then 72 hours off. This schedule makes the farm life possible; however this truly a family farm, each generation has a part to play. His wife Jessica first takes care of raising the fourth generation at Keenbell, and handles online marketing. His dad partners on the farm and Keenbell plans to hire a cousin, Jonathan, who now works part at the farm managing the poultry, to work full time in the near future. CJ and his family also want to be sure to give credit to the local Agriculture and Conservation Service offices. “Jim Schroering with Natural Resources Conservation Service; and Jim Tate with Hanover-Caroline Soil and Water Conservation District each have helped me tremendously, I want to thank them for their support.”

When I spoke to CJ he was getting ready to go to Argentina with the VALOR (Virginia Agriculture Leaders Obtaining Results) Program. This is a two year program, ran by VCE and designed to develop leaders who can effectively engage all segments of the Virginia agriculture community to create collabora-tive solutions and promote agriculture inside and outside of the industry. CJ has been a Fellow in the program for about 18 months; about six months remain with the trip to Argentina an international component of the program. CJ praised the program for its forward looking goals and the personal development opportunities it has afforded him. The VFGC also appreci-ates CJ’s willingness to speak at the Winter Conference, sharing the experiences of Keenbell Farm, a family farming in Virginia.

Dennis Jones is serves on the VFGC Board.
Reducing fertilizer need through increased efficiency of nutrient cycling, as well as weed suppression through increased biodiversity are two more ways that managing for soil health can benefit producers. And through our grazing management, we can allow more desirable species to become more competitive, leading to better animal performance.

West Virginia University Forage Extension Specialist Ed Rayburn presented an overview of some of the different organisms that comprise the soil community, their effects on plant growth and the integral role of ruminants in soil health management.

For many attendees, presentations from Gabriel Pont, Gordon Jones and Scott Neil, participants in this year’s Ecology of Grazing Lands Symposium course, were an unexpected highlight. These Virginia Tech graduate students joined students from University of Tennessee, Texas Tech, Clemson and University of Missouri on a two-week field trip, exploring some of the varied forage ecosystems in the southeast.

The producer talks, given by C.J. Isbell of Hanover County, J.C. Winstead of Craig County, and Roy Boldrige of Culpeper County are a continuing theme – improved grazing management frees up resources (economic and labor) to allow them the opportunity to plan, to experiment, to expand marketing opportunities and to enjoy their cattle.

For producers, controlling input costs and controlling risk are the primary keys to profitability, and we already have enough to manage. Soil health shouldn’t be viewed as yet another element to manage, but rather as a way to help optimize those things we already manage.

Patty Johnson is the president of the VFGC.

AFCG has a YouTube Channel
AFCG has a YouTube Channel with recording session from this year’s conference. http://www.youtube.com/user/AFGCORG videos

The Forage Leader will now be available in digital format only on the AFCG website. The February 2014 Edition has been posted. If you would prefer to receive a printed copy please contact AFCG.

Did you know that by being a member of the VFGC that you are automatically a member of the AFCG.

VFGC receives Soil and Water Conservation Society Award
The Virginia chapter of the International Soil and Water Conservation Society (VASWCS) presented its 2013 Outstanding Conservationist Award to VFGC President, Patty Johnson, at the Blackstone VFGC Winter Conference Site. The Virginia SWCS Chapter is much like the VFGC, being a chapter of a larger National/International non-profit organization, it operates on members’ dues, grant funds, donations from associated businesses, and registration fees for its educational programs.

The VASWCS award recognizes the VFGC for its consistent emphasis on the wise use and conservation of soil and water resources, for its leadership in educating landowners and users, introducing innovative practices and research that emphasize efficient and sustainable production of Forages in Virginia.

Meeting in the late summer of 1973 while I was spreading fertilizer for Royster I top dressed 35 acres of fescue and shut the gate. My daddy wanted to know what a doctor knew about grazing and thought I had lost my mind. I even took the snow plow and uncovered the fescue, but he never would admit that stockpiling was the reason for all the hay left over every winter. Forty years later my neighbors can’t figure how I can carry a brood cow through the winter on less than a ton of hay. While they were sitting around the country store complaining about the price of calves compared to the cost fertilizer I was attending the VFGC meetings listening to Harlan White.

Without Harlan White I would not have been able to pass on his money making advice to my fertilizer customers to help their management decisions such as stockpiling fescue, rotational grazing, or creep grazing. We probably wouldn’t have a Virginia Forage and Grassland Council without his leadership. I learned from him how to keep the cost down with self harvested feed from grass without sacrificing the stocking rate or pay weights. Since I’m living out my boyhood dream and making a good living marketing grass through cattle, I want to return a small portion of my profit to the Dr. Harlan White Scholarship Fund so that some young person with a dream of being free will have the knowledge to live off the land with livestock. I wouldn’t be where I am today without the information I learned from Harlan.

I donated $500 at the winter meeting in Blackstone and hope to do more in the future in honor of a great man.

Richard H. Ruff, 1485 Colony Heights Rd., Goode, VA 24556 540-875-9650
In a pasture system this results in a lot of grazing throughout each day, usually close to the ground surface leaving very little leafy vegetative stubble for regrowth. Compared to cattle and goats, horses graze more hours of each day and they tend to graze closer to the surface. In addition horses are naturally spot grazers. When left in a continuous grazing situation they overgraze areas of tender, highly palatable forage while avoiding other areas. They avoid forage near piles of manure droppings thus adding to the uneven effect of the pasture. During periods of the year when forage is not actively growing and is often frozen or wet, if left too long the pastures the hoof action of these large animals can compact the soil, suppressing root and plant growth. Also under excessively muddy conditions this can cause lasting detrimental impacts to soil quality not to mention a higher incidence of thrush and other hoof related issues for the horse.

The forage base in a horse pasture is under extreme grazing pressure in a continuous grazing situation. As mentioned above due to the way the horses are made, they tend to graze a pasture unevenly and closer to the ground compared to other grazing livestock. The fact that most people are limited in pasture acres greatly exaggerates the negative effects on the systems. Most people don’t have a sufficient number of pasture acres to allow unlimited grazing access to the pasture even if the horses are being supplemented with hay. When the system is out of balance by having more animals than the pasture can reasonably support, the forage base quickly deteriorates. In a continuous grazed situation horse pastures, even when the horses aren’t grazing, forage plants don’t get a chance to rest and regrow to provide the needed energy for regular plant maintenance or to replace stored sugars and carbohydrates needed for future root and plant tissue growth. This results in a thin, weak, pasture stand with dwindling ground cover, decreased plant persistence and a higher incidence of weeds invading the pasture. No forage can sustain and provide a healthy sod in a pasture that is overstocked and continuously grazed. However if horse numbers are reduced to a level stocking rate and their access to available pasture is limited (hours per day) and managed in a rotational system, then certain forages may work well. Tall fescue mixed with white clover is a tough and durable forage combination that can take some abuse, recover after a drought, and provide a good cool season perennial forage base for most horse pastures. Some people like to avoid using tall fescue as an all purpose stocker due to its potential negative impacts on the white clover. If we ever consider a pure clover establishment may partially explain why forage nutritive value did not differ between mob, rotational, and continuous stocking this year.

In 2014, we will measure forage productivity and changes in species composition in addition to nutritive values. The clover should be fully established this year so we could expect to see differences between the treatments.

Robert Bauer, graduate student and Ben Tracy, Associate Professor are in the CSES department at Virginia Tech.
Winter Hay Feeding Strategy for Blizzard Conditions

By Robert Shoemaker

This past February with 24 inches of snow in seven days reminded me of the importance of employing successful hay feeding strategies. There are many ways to successfully feed hay during the winter but I would like to share something that worked best for me during February 2014. For the most part we had an open winter without snow cover.

Several years ago my neighbors taught me a valuable lesson free of charge. Our area received over 30 inches of snow with blizzard conditions and twelve foot drifts. I was able to get hay to the cattle ahead of the storm. My neighbors did not. Each neighbor lost about 30 head of cattle because the once snowed in cow could even move a 4 wheel drive tractor through the fields. Some farmers could not get to their cattle for four or five days.

Therefor rule number one is start early before the storm hits. This year we had been grazing up until the February storm. Regardless we did put hay in the previously grazed pastures and closed the gates to prevent cattle from eating the hay. As an example one herd consisted of 140 cows and calves. We put a load of eleven 4 x 5 round bales in each field. We did not unroll the bales but they were placed with the flat side on the ground. The baled used to produce the bale made an extremely tight bale. There was little waste as cattle had to pull a bite from the side of the bale.

In one day we were able to transport 5 loads two miles and place them within separate fields. Gates were shut before the snow fields so when cattle finished the hay in one field we simply needed to open the gate to the next field (or take it off the hinges if snowed in). When the snows came we simply turned the cattle into the first field with hay. This gave us approximately 4 days of feed. Subsequent feedings involved opening a gate. Some areas were remote and deep snows prevented us from reaching the fields with a tractor but I was able to trek across the fields with snowshoes. This was a brisk workout but very successful.

Getting ahead of the storm and watching the weather is critical. Putting hay out ahead of time is much less stress on the producer and the equipment. It is more time efficient to strategically place the hay when the ground is open versus when two feet of snow is on the ground. The hay was moved when the ground was frozen so this prevented the fields from becoming rutted. Normally I would recommend unrolling the hay for better nutrient redistribution. Unfortunately that strategy disintegrates when the number one goal is just trying to survive.

Robert Shoemaker is past president of the VFGC.
Managing Horse Pastures for Improved Soil Function, Pasture Health and Water Quality

By J B Daniel

The estimated number of horses in the United States and Virginia continues to rise each year, while land area to pasture and produce feed for these animals continues to decline. In many equine pasture situations the number of horses stocked or managed in the pasture far exceeds the carrying capacity for that land under the present management. The true carrying capacity depends on soil type, productivity potential, the type of forage, type of livestock and the way livestock are managed. In many areas these horses are present just outside the major population centers of our state. This is understandable since many horse enthusiasts live and work in the cities and the surrounding suburban areas and thus need quick access to a place where they can board, ride and enjoy their horses. Unfortunately these areas are competing with and under pressure from the continued sprawl of both residential and commercial development.

The equine industry is very important to local economies throughout Virginia. The industry is good for local business providing supplies and services, as well as the surrounding agri-cultural community that produces and provides much of the feed necessary to support the local horse population. As the industry faces the challenges of a greater number of animals and few-er acres to provide for them, it becomes increasingly important to acknowledge the natural resources that support horse farms. These natural resources must be carefully managed in order to maintain the long term function and productivity of agricultural lands and the conservation of soil and water resources.

By J B Daniel

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and allowed to properly establish, Bermudagrass forms a thick dense sod that can sustain close grazing in a managed system. It is productive May through August and goes dormant in the fall. Bermudagrass pastures can be interseeded with a cool season annual in the fall, such as annual ryegrass, to provide some green forage in late fall and spring on the same pasture field. The grazing impacts to the forage base in unmanaged horse pastures directly relates to the deterioration of soil quality which restricts the natural function of the soil. The function of the soil in an agricultural situation is to provide a healthy medium for plants to grow and produce food. A healthy and properly functioning soil is usually rich in organic matter having a diverse and expan-sive system of micro and macro pores connected to the soil sur-face that allow for infiltration of runoff, exchange of water and air with plant roots. However, in an overstocked, overgrazed pasture, due to the thinning plant cover as described above, there is less plant material covering the soil, fewer roots to hold the soil, and a lack of plant residue to replenish the or-ganic matter in the surface soil horizon. The plant cover and thin layer of mulch residue that used to protect and enhance the soil quickly diminishes. These changes leave more of the pasture soil surface exposed and unprotected, increasingly susceptible to erosion and the loss of the most valu-able and fertile layer of soil in the pasture system. The soils di-rect exposure to horse hooves quickly compacts and seals the soil surface, degrades soil porosity, limiting rainfall infiltration and extends surface run-off. Most of this sediment laden runoff does not infiltrate into the soil but rather deposits the soil from the field into adjacent streams and ponds causing water quality concerns for the aquatic life living in those waters and for the horses drinking from that same water. When too many animals have unrestricted access to pas-tureland that does not have the capacity to provide and sustain those animals, then the soil, water and animal resources all suffer. To break this negative cycle of decline, the source of the problem must first be identified and a careful recovery strat-egy planned. In many equine situations the number of horses stocked or managed in the pasture far exceeds the carry-ing capacity for that land under the present management. The true carrying capacity depends on soil type, productivity poten-tial, the type of forage, type of livestock and the way livestock are managed. A plan must be carefully crafted to bring these resources back into balance with a realistic carrying capacity for the available land.

Common changes in management include:

- Designating a heavy use area as an exercise lot where the horses spend most of their time.
- Subdividing the overall pasture into a series of smaller paddocks with internal cross fencing to allow for controlled grazing and ensuring farmer rest periods to allow for sufficient plant regrowth and maintenance of a thick protective sod.
- Deferred grazing on paddocks under renovation for an extended period of time (commonly 18 months) while newly seeded forages become established and the soil begins to heal.
- A plan for restricted access to a grazing paddock for a limited amount of time each day.
- fence surface waters to restrict animal access and prevent continued stream bank degradation and erosion and installing a clean reliable source of drinking water for the horses.

installation of riparian forested buffers between grazing pad-docks and surface waters to slow the velocity and filter runoff...
VFGC’s annual Winter Conference Series was held in January, with stops in Blackstone, Wytheville, Weyers Cave and Brandy Station. The 3” “dusting” of snow between Wytheville and Weyers Cave served as a fitting welcome for keynote speaker, Joshua Dukart of Bismark, North Dakota. Joshua manages his family’s ranch and serves as a field rep with the North Dakota Grazing Lands Coalition, an organization providing financial and land management guidance to producers in the Burleigh County, North Dakota. Since the 1990s, producers in Burleigh County have responded to increased input costs and weather challenges by including cropland acres in their grazing systems and introducing Multi-species cover crops into both their grazing lands and crop lands. While the specifics of managing land in the upper Midwest are different, many of the challenges and opportunities are familiar to producers here in Virginia.

The concept of using cover crops to help reduce input costs isn’t new, but Joshua’s perspective of soil health gave producers a new insights on how to use this underappreciated management tool. By considering how our grazing practices impact soil health, we can rethink some of our own individual strategies for reducing input costs and mitigating risk.

Soil Health: The Foundation of Profitable Ruminant Livestock Production

By: Richard Ruff

Every young boy fantasizes about the career he will have to support his family with when he becomes an adult. I had two. An engineer on a steam engine for the N & W or every true Celtic’s dream; live off the land with livestock. The N& W retired the steam locomotives when I was twelve so I ended up as a cattleman. Very few adults are fortunate enough to make a living chasing their childhood dream. My first memory of farming was breaking my fingers in the cog wheel on the old corn sheller at seven years old while feeding the sheep and pulling the wagon up beside the thrashing machine with the 8N Ford that summer with all the old farmers telling me how to do it. I made my first income selling orphan lambs and latter selling cream from the milk cow.

Harlan White Scholarship Fund

By: Richard Ruff

My experience in army basic training built enough confidence that I could do anything I made my mind up to do if I had the knowledge to do it. Everyone discouraged me from farming so I bought a couple of trucks and did custom fertilizing and spraying for thirty years. Sixty years after getting my hand caught in that old hand sheller I’m making a good living doing what I always wanted to do, marketing grass through value added cattle. The doctor who owned my great great grandfather’s farm across the road showed my father an article about stockpiling fescue. Dr. Harlan White was mentioned in the article so I went to hear him speak at the next extension meeting.