By: Ben Tracy

Mention sericea lespedeza to most folks in the foragelivestock business and the reaction you will get is typically visceral and universally negative. The plant's bad reputation has a long history. In the southeast and southern Great Plains, sericea is considered one of the most noxious and invasive weeds in pasture and rangeland. Nonetheless, where most see nothing but problems with sericea, others (and this would be a minority) see great potential.

Sericea lespedeza (Lespedeza cuneata) is perennial legume native to Asia. It was introduced to the US in the 1890s mainly for erosion control and possibly to provide forage for wildlife and livestock. Like many exotic plants, it was free of serious insect and disease problems, very competitive with native vegetation, a vigorous seed producer and capable of thriving in almost any kind of soil. Additionally, wild sericea also has high concentrations of tannin, which make their tissues unpalatable to most herbivores. These combined characteristics are among the reasons why sericea can successful invade grasslands.

So why on earth would anyone want to use this species in a forage-livestock system? Well, there are some good reasons as I have written about in a previous issue of the Virginia Forager. In moderate concentrations, the tannins in serciea may benefit livestock when consumed. Bloat prevention, better protein digestion, parasite control and possible reduction of tall fescue toxins are some benefits. Sericea also has high protein content, excellent drought resistance and persists well on relatively poor soil. The forage potential of sericea is probably why it has been called the 'poor man's alfalfa'.

This spring we planted sericea with tall fescue at Virginia Tech's Shenandoah Valley AREC in Steeles Tavern, Va. We plan to evaluate benefits of sericea in a grazing system, but are definitely concerned about the potential invasiveness of this species. I suspect it will not become problematic in this part of Virginia though. First, in a well -managed grazing system, sericea plants should not be permitted go to seed - the main mode of spread. Of course, this is not full proof protection against invasion, but it should help reduce the spread potential. Second, sericea tends to be a problem in regions with very hot summers and low rainfall where it can compete effectively against cool and warm-season vegetation. I think the Shenandoah Valley may be a bit too cool and wet for sericea to spread easily due to competition from existing vegetation. Thirdly, we will be using an improved cultivar developed at Auburn University (AU Grazer). This cultivar has been selected for grazing and has comparatively low tannin levels. It should not be as competitive as wild type sericea.

Nonetheless, we plan to monitor our plots and on-farm demonstrations carefully. As with any 'new' forage species, responsible managers must weigh positives and negatives before adoption. At the end of our trial in several years, we will have a clearer understanding of the potential risks, and benefits, of using sericea lespedeza in Virginia.

Ben Tracy is Associate Professor in the CSES Department of Virginia Tech and also serves as an educational advisor to the VFGC.

### Morris Farm Page 4

A good grazing plan may save on hay, but some people worry that adopting an intensive plan may rack up fencing costs in the short-term, trading away the economic benefits of reducing labor, fuel, and fertilizer for haymaking. However, Jennifer has advice for graziers who wish to adopt a sensible controlled grazing plan for the sake of reaping the long-term benefits. "Keep fencing simple," she offers. "Use good outside perimeter fencing and crossfence with a simple single wire—a few T-posts, a few wooden posts, and your wire. The worst that can happen is mostly some calves might get into the next paddock and graze more. It doesn't have to be built to government specs."

People who have limited time or who are not yet ready to jump on board with strip grazing can benefit even from simply dividing a pasture in half and rotating cows between halves---many who start this way later choose to subdivide pastures further, including the Morris family. "We went from one paddock to seven in Blackstone using the available water," Jennifer says in reference to the developments she and Whit made on the farm soon after they purchased it



What is next for the Morris farm? Whit and Jennifer hope to address some challenges plaguing herds in Southside Virginia including their troubles with fescue toxicosis, a problem caused by a symbiotic organism living in tall fescue grass which can cause physiological stress on cattle. For now, they provide as much shade as possible to relieve some of this stress in the summertime. In the future, Jennifer and Whit also would like to incorporate more clover into their pastures for both its nutritional benefits and its nitrogen-fixing abilities. Frost seeding may be on the agenda when winter comes back around.

For now, the farm is thriving and the care and attention spent on grazing management is paying off. The farm has even recently been used as an educational resource during grazing schools offered by the Virginia Forage and Grassland Council and Virginia Cooperative Extension. The grass may have just begun to green up thanks to a cold, sluggish March, but come spring and summer, the pasture rotation will be in full swing, and the Morris family eagerly awaits the chance to get their cattle back on some good grass. To the animals, who have learned that the grass really is greener on the far side of the polywire, the presence of Whit or Jennifer coming to open the gate to the next field elicits equal excitement.

Laura Seigle is ANR Extension Agent in Amelia County, Va.

# Virginia Cooperative Extension's Youth Cattle Working Contest

By: Lindy Tucker and Laura Seigle

While agricultural Extension faculty across Virginia spend a significant portion of their time helping adult learners improve their farm management programs, agents have long held the understanding that teaching youth can set the stage for a lifetime of engagement in research-based farm practices.



Virginia Cooperative Extension's Youth Cattle Working contest encourages high school-aged 4-H and FFA students to treat and handle cattle in accordance with the standards of Beef Quality Assurance, an industry-wide program that necessitates the adoption of best management practices which promote carcass quality, animal health and welfare, and handler safety. Youth who practice for the contest learn to give injections and medications correctly, keep detailed records, and restrain animals properly—skills which can enhance future careers on the farm or in the agricultural industry.

April 2, seven teams consisting of three students each gathered beside the cattleworking facilities at the Southern Piedmont Agricultural Research and Extension Center in Blackstone to begin the Southern Piedmont Regional Cattle Working Contest, one of five regional competitions taking place in Virginia.

Students came from Buckingham, Charlotte, Botetourt, and Powhatan. Each team faced the same tasks, beginning with calmly catching and restraining three calves in the headgate and then applying an ear tag, implant, dewormer, and vaccinations. Judges watched carefully, evaluating the students for technique, efficiency, safety, and correct recordkeeping. This year's judges included



Dr. Jim Jones, supporter of the program and former director of the Southern Piedmont AREC, Taylor Clarke, Mecklenburg Extension agent, and Nathan Shireman, graduate student in livestock and forages.

From the regional contest, the top two teams move on to the State Cattle Working Competition at Rockingham County Fairgrounds on April 18, 2015, where they will be further challenged by two additions to the competition: RFID tags and a non-Ralgro implant.



Taking second place in the regional competition was James River FFA (Botetourt County) composed of David Cummings, Morgan Curry, and Davis Fenster and coached by Zach Wakeman. Claiming first place in their third year of competition, Randolph Henry High School Team A (Charlotte County) composed of Cassie Long, Hannah Adams, and Conner White and coached by Jim Pugh, also advances to the state level, but not without some sacrifices. Several Charlotte County students missed their Beta Club inductions for the regional competition, and now the top team will miss prom to compete at the state level.



The contest is an excellent venue for the students to gain technical knowledge and hands-on experience directly through instruction and competing, but also by watching other

Youth Cattle Page 11

By: Jim Tate

Beautiful Day, Beautiful Venue, Beautiful weather, Great speakers, Fabulous Barbecue Lunch, great attendance.....

It don't get much better than this.

The Virginia Forage and Grassland Council, The Monacan Soil and Water Conservation District, Virginia Natural Resources Conservation Service, and local Virginia Cooperative Extension offices combined to put on a terrific field day, hosted at the farm of Ronnie Nuckols.



The theme of the day was Using Forage Crops and Grazing Management to Build Soil Health and Extend the Grazing Season. Examples of these management strategies were in abundance. The star studded line up of speakers addressed a wide variety of topics.

The crowd of over 200 attendees was split into two groups and the entire program was put on twice, with the two groups alternating stations after lunch. The group I was in began the day with David Kriz, John Nicholson, and Ray Archuletta discussing soil health and soil structure and the principles of soil health, with demonstrations and a soil pit where they revealed soil layers and root penetration among other things.

From there my group went to J.B. Daniel who took us on a tour of nine acres planted in five different blends of winter cover crops.



He explained the fields' management and grazing history and handed out literature which documented the biomass produced by and nutrient quality of the various blends. He discussed the strengths and weaknesses of each blend, and how choosing cover crop species should be influenced by the fields planned use and purpose. (At the end of the spring grazing season, a complete case study of the 9-acre mixed annual forage demonstration will be posted on the VFGC website. The case study can be used by everyone to learn from and consider how any of these mixes in use may fit into one or more pastures on their farm.)

Then a great barbecue lunch catered by Hickory Notch Grill. At the end of lunch Jon Repair, President of the VFGC, and Jack Bricker, State Conservationist with the NRCS addressed the consolidated lunch crowd.



To start the afternoon my group loaded up on trailers and went on a riding and walking tour led by the Farm Owner, Ronnie Nuckols , Dr. Chris Teutsch, forage agronomist from the

Blackstone Research Station, and Keith Burgess of the Monacan SWCD.

Mr. Nuckols explained his management and goals as we looked at both successes and opportunities for improvement in his pasture and operations. At one stop he demonstrated moving a single polywire fence to rotate cat-

tle from one paddock to another in his managed grazing sys-

At the next stop we were shown the fundamentals of the farm livestock watering system with a critique of the benefits and the changes planned for the future. All the live water features on the farm have livestock exclusion fencing and alternative livestock water facilities are installed to serve each pasture. Mr. Nuckols said that at first he was stressed a bit about giving up the buffer area around the water, but knew it was sound ecologically and needed. He determined that he needed to find ways to utilize the buffer so that it was not "lost". He manages his buffer by creating a trail all the way around his property. He can now access any field from the outside pathway which can be travelled by ATV, tractor, Truck, or on foot. In one place, near a beautiful creek that ran along a sloping pasture, he had even created a playhouse for his grandchildren in the buffer.

This farm, located in the Piedmont region of Virginia, has some significant slope to fields on highly erodible soil types, so soil erosion is always a concern. However, soil erosion is held in check by healthy and diverse grass stands, and managed with small groups of animals in small paddocks with frequent moves that allow the grass to rest, recover, and thrive.

Field Day Page 10

### Dr. Brian Campbell Begins New Role with **DSM Nutritional Products**

The Virginia Forage and Grassland Council would like to thank Brian Campbell, the Ruminant Livestock Specialist for the Southern Piedmont AREC, for his support over the last two and half years. Dr. Campbell has accepted a position as Technical Support Manager for DSM Nutritional Products.



Dr. Campbell began his new position March 2<sup>nd</sup>.

# **Upcoming Events**

#### **Annual Tobacco Field Day Southern Piedmont AREC**

Blackstone, Virginia July 29, 2015 makenny@vt.edu

### 2015 Annual Forage/Livestock Field Day **Southern Piedmont AREC**

Blackstone,. Virginia July 30, 2015 cteutsch@vt.edu

#### Shenandoah Valley AREC Field Day,

August 5, 2015 program starts at 1:00 and concludes with dinner that evening. Call 540-377-2255 for more information.

### 2015 Family and Farm Day **Southern Piedmont AREC**

Blackstone, Virginia September 12, 2015 makenny@vt.edu



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Cattle producers can feed hay to meet the animals' forage requirements when grass is not growing in the summer or when it goes dormant in the winter, but the cost of making or buying hay can far exceed the cost of maintaining a good stand of grass. To minimize the number of days that they must feed hay and to maximize the health, efficiency, and productivity of their pastures, Whit and Jennifer have spent the last several years building and improving a controlled grazing system to take full advantage of the tall fescue, clover, Bermuda grass, and other spe-



cies growing on their land.

Their grazing plan changes throughout the year according to conditions and forage growth habits. In the summer, the cattle follow a "rotational grazing" system. In this system, the pastures are subdivided and animals are given access to one area at a time. Jennifer moves the cattle to a new area when the grass is grazed to a critical height. If cattle stay in one place too long and graze forages too closely, grasses lose nearly all of their leaf area. They then have to expend their root reserves to supply energy for sending out more leafy growth, and they tend to bounce back slowly even when given a rest period. If Jennifer pulls the cattle off of each paddock before the cattle overgraze it, the



grasses have enough leaf area left behind to fuel fast regrowth through photosynthesis.

In the cold months, the farm switches to a "strip grazing" system to make use of the tall fescue which was grown in the fall months and saved or "stockpiled" for the winter. Strip grazing offers benefits similar to rotational grazing, but unlike a rotation in which animals are moved from fenced paddock to paddock, strip grazing entails setting up a temporary fenceline and moving

the animals' fenceline further and further down the paddock as the animals consume what is offered to them. Each time Whit and Jennifer move the fence and provide access to a fresh part of the pasture, the animals consume the available forage far more evenly and efficiently than they would if they had simply been turned out continuously on the entire area at once. In a continuous grazing system, animals access the entire available pasture at all times, and, due to behavior and preferences, end up overgrazing some areas and underutilizing others, resulting in changes to both the health and the quality of the forages. Animals also tend to congregate and loaf in the same areas each day, concentrating nutrients from manure in these areas. To complicate matters, many parts of the pasture can never adequately rest from overgrazing and the stand of grass eventually becomes weak.

Both of the grazing strategies that Whit and Jennifer employ—rotation and strip grazing—have well-documented advantages over continuous grazing including more even nutrient distribution, higher pasture utilization, and more efficient use of available forages. Whit and Jennifer have also seen a significant downsize in hay feeding requirements because their management strategies create highly productive pastures and lengthen the number of days that forage remains available during the winter.

A cattle producer who does not have enough available pasture or who does not use a controlled grazing plan may end up feeding hay to pick up the slack during the summer, in the late fall, and all throughout the winter if the pastures become weak or overgrazed. This can quickly become expensive, and Whit and Jennifer have been grateful that their pasture management plan has brought relief from a portion of their hay costs. "We didn't



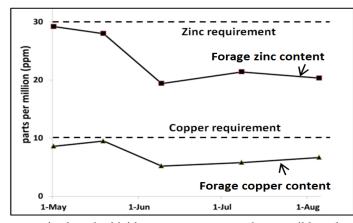
feed hay til the snow this year," Jennifer notes. In a typical year, she also feeds some hay in the fall so that pastures can build some growth and later be used for winter grazing. "We might feed hay around the end of October or first of November while the stockpiled fescue is growing," she says.

Enacting rotational grazing or strip grazing may sound like plenty of work on its own, but to Jennifer, it beats the labor and fuel associated with making hay. "We cut hay when absolutely necessary, and if we don't need to cut it, we bush hog the extra to save the nutrients for later," she says. In the business of raising cattle, "there's enough work in it already with maintaining fences," says Jennifer.

### From Front Page Pasture

months. This kind of pattern is pretty typical among most pastures in Virginia as grasses fight tooth and nail to grow tall and reproduce, resulting in stemmier plants and diluted nutrients. As a livestock producer, you should recognize the two-month period from June-July as a time of potential nutrition shortfall for some classes of cattle – particularly with regard to digestible energy. Not only is nutrition low or dropping, but animals' consumption of maturing pasture is slowed as well. Most affected would be animals with elevated nutritional requirements: lactating cows, heifers, and stocker cattle. For example, the dashed horizontal lines in Figure 1 show the nutrient requirements for a 500 pound steer. According to the numbers, the pasture represented by Figure 1 would only support 0.5- 1.0 lb. of gain/day during June and July. Add summer fescue toxicity to the mix and things get even worse. Unfortunately, I have worked with many livestock producers who have complained about the very lack of animal performance in summer that is demonstrated in this example. What can be done about this summer decline in pasture nutrition? In this study we sampled only grass. Pastures with a significant legume component show consistently better forage quality throughout the season. Not surprisingly, research has shown a corresponding and dramatic improvement in animal performance on mixed pastures over those on straight grass pastures. Establishing and maintaining 25%-50% legume in your pastures should be a top priority. I'm sympathetic to the argument that it is hard to control weeds and promote legumes, but I think the above illustration makes a good case that our primary focus needs to be on ways to maintain high-energy, high-protein forages and not on killing weeds. I urge producers to be very

Figure 2.Zinc and copper content of Shenandoah Valley pastures in spring and summer.



strategic about herbicide usage: spot spray when possible, select herbicides with low persistence when applicable, know weed life -cycles and spray when they are most susceptible. By the same token, I recommend that nasty perennial weed problems be dealt with swiftly using the highly-persistent herbicides of the pyridine family. The bottom line is that herbicide usage should be a first step in pasture renovation – not an annual ritual. Grazing strategy can also greatly impact pasture forage quality, since green, leafy forage is higher in quality than mature forage. Continuously grazed pastures inevitably become a patchwork of over-used and under-used areas in summer. This creates a situation where animals either cannot consume the quantity of forage they need, or they are forced to graze pasture that is rapidly declining in quality. Many methods exist for controlling grazing,

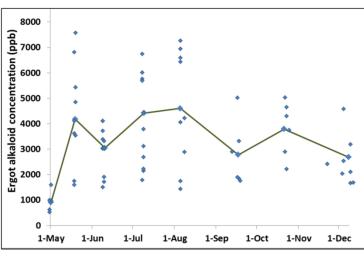
with the basic goal being to match the number of animals to the amount of acreage they can keep grazed and leafy without grossly over-using or wasting forage. This does involve some management to break up larger pastures into manageable units, but it doesn't need to be 10-paddock system with daily animal moves. On many farms pasture management could be greatly improved by simply closing a gate or splitting a field with a strand of temporary electric fence. In this study we did a mid-June comparison of forage quality on 3 pastures where grazing had been uncontrolled, alongside grass that had been managed to maintain leafy, vegetative growth. The leafier forage averaged 5 points higher in TDN and 4 points higher in CP than the unmanaged forage.

Another area of deficiency that stood out in the study was the zinc and copper content of the pastures. It is certainly documented elsewhere, but we found that zinc and copper tracked below animal requirements throughout spring and summer. These pastures all had a history of poultry litter use, and so our findings were a bit of a surprise. It is a good reminder to keep a complete mineral mix including trace elements in front of cattle at all times.

#### **Fescue toxicity results:**

As previously mentioned, we also tracked the alkaloid production of pastures in the study throughout the growing season. Alkaloids are the compound produced by the fescue endophyte that

Figure 3. Alkaloid content of Shenandoah Valley pastures.



causes fescue toxicosis. The results of our fescue testing were pretty clear: our fescue has the potential to be very toxic regardless of the date or stage of growth. Figure 3 shows a line tracking the average alkaloid content of pastures in the study across the course of the season. The dots shown in Figure 3 represent the individual test results of each pasture. There is debate about the threshold level of alkaloids that cause animal problems, although most experts would agree that is less than 1,000 parts per billion (ppb). In this study, all pasture rose quickly above this threshold in spring and stayed high throughout the season. A look at the individual samples (dots) shows the enormous variability that existed among fields - sometimes even on the same farm. There did not appear to be any difference between pastures grazed continuously versus those grazed rotationally. In general, fescue toxicity appeared to be highest at the early-heading stage in mid-June. Based on conventional thinking, we had expected alkaloid concentrations to be lower under management treatments that

The next topic on the afternoon tour was the use of annual cover crops to augment grazing.

The farm had historically been a cattle grazing operation and was primarily a conventional fescue based system. When Mr. Nuckols decided he wanted to make better management choices another change that he made was the incorporation of annuals to fill holes in his grazing system.



He routinely plants both summer annuals and cool season annuals as a part of his pasture rehabilitation program. He took us to a field that had been a weaker fescue pasture, he was planting annuals in it to build the soil and extend grazing by producing more biomass (forage). He was controlling the cattle using temporary portable fences, short grazing periods, and longer rest periods. The field had been in summer annuals in 2014 and was replanted to mixtures of cool season annuals in the fall. As we walked about and listening and questioning, we were surprised by a group of cows in an adjoining paddock who were up to their bellies in a beautiful stand of mixed species cool season pasture.



The next stop for the group was a demonstration by Chris Lawrence, Virginia Crop Land Agronomist for NRCS. Chris first demonstrated the soil slake test and the infiltration test, two basic evaluation demonstrations of soil health. With this background, Chris started up his rainfall simulator to demonstrate how management decisions affect environmental outcomes.

Jars of clear and muddy water are clear visual indicators of how maintaining soil cover and root mass (biomass) protect soil and water quality.



All in all a wonderful and worthwhile field day and I want to extend my personal thanks to all who had a hand in it, a special acknowledgement goes out to the following agribusiness sponsors who supported this event:

Colonial Farm Credit, Mr. Clay Roberts, Forrest Sanford and
Lynn Slaughter
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Waterloo Farms, Mr. Lewis Ashton

This project is sponsored in part by a USDA-NRCS Conservation Innovation Grant.

 $\label{lem:conservation} \textit{Jim Tate is a Conservation Specialist, with Hanover Caroline } \textit{SWCD} \;.$ 



### Correction

Correction-The article in the March 2015 issue of the Forager titled Native warm season grass: Selecting species and cultivars for forage production was not correctly attributed. The article was written by Patrick Keyser, Patrick is the Director of the Center for Native Grasslands Management at the University of Tennessee, pkeyser@utk.edu. This article was reprinted with permission from the Feb. 1, 2015 issue of the Progressive Forage Grower.

# Batt-Latch Lets Your Animals Move Themselves!

By: Juan Alvez

Being a farmer is simply one of the busiest human activities so, what grazing farmer wouldn't benefit from an automatic gate opener?



We recently learned about this useful device with the ability to automatically open gates. It is called a 'Batt-Latch.' A Batt-Latch is an electronic locking device (developed by NZ company Jenquip), that incorporates a timer that can release the gate latch at a specified time to

open a gate into another paddock. It's a solar-powered all-weather device that releases an attached spring-gate or tape-gate at a preset time, and is especially suited to the release of grazing animals in pastured and feedlot situations.

With the addition of an optional pipe gate adapter, the Batt-Latch can be used to open almost any type of farm gate. Besides grazing stock applications, it can be used for release of free-range chickens and almost any application that can be initiated by a mechanical switch or release.

Once trained, animals quickly learn to move themselves onto the next paddock. A series of Batt-Latch units can be set up increasing animal moves daily, enhancing grazing efficiency and saving farmers' precious time.

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Animals Page 11

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Well, finally spring sprung and if you are like me you are about ten steps behind as we begin this new growing season. The challenge of this past winter for livestock producers is one we won't forget for a while. With all that said, it is time to move forward with a positive direction and attitude.

The Virginia Forage and Grassland Council is not standing still either. The Board of Directors has already set into motion two key educational events in regard to forage production and management. The first, which will probably be in the record books by this printing, is the 'Spring Forage and Grazing Field Day being held on April 21st. This is the first of four similar Field Days to be held. This first event will be at the Ronnie Nuckols Farm in Goochland Coun-

Our second event for 2015 will be a Beginners Grazing School to be held May 5 and 6 at Ferrum College. This will be an outstanding opportunity for both new and experienced graziers o learn new and old concepts and techniques when managing and utilizing forages in a grazing environment.

You can stay abreast of these two and other upcoming VFGC events and activities for 2015 by visiting our website at vaforages.org. Lastly, I am proud to announce that the Virginia Forage and Grassland Council will be hosting the 2017 American Forage and Grassland Council Annual Meeting. This event will be held on January 22 - 24, 2017 at the Hotel Roanoke, Roanoke, VA. Mark your calendar now, so as not to miss this fun, informative and educational event. The AFGC meetings cover a host of topics annually that are useful and pertinent to the daily production and utilization of forages. We will continue to provide further information as this event continues to come together.

Spring is an excellent time of year as we begin a new growing season. Agricultural production will be in full swing by the time you get this newsletter. With all that goes on, it is important to always keep farm safety in the forefront of our minds as we carry out all our tasks and responsibilities. STAY SAFE.

> Best Regards, Jon Repair President, VFGC

# Donate a calf to the Dr. Harlan E. White Memorial Scholarship Fund

With record high cattle prices, the Virginia Forage and Grassland Council is asking you to consider donating the proceeds from the sale of one calf this fall to the Dr. Harlan E. White Memorial Scholarship Fund. This fund has been established by the Virginia Forage and Grassland Council in memory of Dr. White and will be used to award scholarships to deserving undergraduate and graduate students to help train the next generation of forage and grassland specialists.

Dr. White's career was long and distinguished. He joined the Virginia Tech Agronomy Department in 1966 as an Extension Forage Specialist. In 1979, he was the driving force behind the formation of the Virginia Forage and Grassland Council which has grown to become a major voice for the forage and livestock industries in Virginia.

As livestock and forage producers, many of you personally knew Dr. White and there is a good possibility you attended a producer meeting or field day where Dr. White was a speaker. Many of you still utilize concepts that Dr. White developed such as stockpiling tall fescue for winter grazing. He pioneered no-till planting of forage crops and promoted the use of

legumes in forage crops and pastures. He was a strong proponent of rotational grazing and advised countless numbers of graduate students in forages at Virginia Tech.

Dr. White dedicated his life to Virginia's forage industry. It is now time for us, the recipients of his knowledge and good works, to return the favor by donating to the Dr. Harlan E. White Memorial Scholarship Fund to help train the next generation of Forage Specialists.

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### From Page 9 Snap Shot

produce more vegetative forage, such as regrowth following hay harvest or close spring grazing. Most university recommendations state that clipping or close-grazing of pastures will reduce pasture toxicity, as the endophyte and associated alkaloids are concentrated in stems and seed heads. In this study, however, we found that the alkaloid concentration of pastures in a vegetative state were just as high as those where plants were flowering or setting seed. It is important to note that we sampled pastures in a way that mimicked animals' selection of plant parts, for example, cattle in this study tended to consume the entire plant- seed head and all- up to the time of flowering, after which time they ignored stems and seed heads in favor of leafy undergrowth. Perhaps the most promising finding comes from supplemental sampling performed on one the study pastures. While we selectively sampled only fescue for the purposes of comparing pastures over time, in one case we also collected a sample which represented the grass species diversity (perennial ryegrass, Kentucky bluegrass, orchardgrass, etc.) existing in the pasture. Compared to the fescue-only sample, the diverse sample was 90% lower in alkaloid content (3381 ppb vs. 346 ppb), demonstrating that dilution can be a great tool to reduce pasture toxicity. The issue of fescue toxicosis pulls people into two camps: those who would remove toxic fescue and those who would continue to live with it. Most of the time I think fescue toxicity steadily nibbles away at producers' profits just under the radar, only occasionally causing a noticeable problem. The goal of the alkaloid testing in this study was simply to raise awareness that fescue toxicity is real and it is most likely affecting your operation every year.

Too often we hurry to do the noisy little things that clamor for our attention, while postponing indefinitely the big silent ones. Pasture resources are easy to ignore, but they are the silent engine of profitability for most livestock operations. Make this the year your pastures get the attention they deserve.

Matt Booher Extension Agent, Agriculture and Natural Resources in Augusta County.

### From Page 7 Youth Cattle

competitors and sharing knowledge with one another. Perhaps though, the greatest growth happens outside of technical skills as youth are challenged to remain calm, cool, and collected in a new and unpredictable situation. They do not know ahead of time the size, breed, or the disposition of the cattle they will have to work, the type of chute or facilities, or exactly which products they will be using. Additionally, there is a time component which challenges students to work as quickly as possible, attempting to work all three calves in less than eight minutes to receive maximum points.

In a situation in which even the most experienced cattlemen can lose their cool, the youth are challenged with patience, persistence, and confidence in their abilities. Every student comes out stronger in some way – learning from their mistakes and taking notes for next year. It is a competition full of life lessons and irreplaceable skills – a place where persistence, practice, and patience pay off.

Lindy Tucker is the ANR Extension Agent in Lunenburg County, and Laura Seigle is the ANR Extension Agent in Amelia County.

their needs, preset paddocks can be established in sequence. Batt-Latch devices are placed to secure the gate of each paddock.

Once the timer completes its cycle the latch opens, releasing the gate, allowing animals to walk into the new paddock. Animals will learn quickly and will move themselves as many times a day as the Batt-Latches are set, increasing forage efficiency and animal gain.

This way, farmers can have time to do other chores without worrying that animals won't have enough to graze. This video, by David Nortunen at Hidden Vue Farm in northern WI, shows how the process works.

With a Batt-Latch device, livestock producers have the convenience of relying on an electronic device to automatically move cows to the next pasture. It can be set up the same morning or the day before.

#### What doesn't it do?

There is no electronic device that can monitor pasture's growth and development and make management decisions for the grazing farmer. For that reason, farmers still need to walk their pastures in order to keep the best sense of their animals' and forage availability. A Batt-Latch will be very good at doing what is programmed to do: opening the gate at the pre-set time.

About the author Juan Alvez

Juan comes from a two-generation pasture-based family farm in Uruguay. He obtained his BS in Agronomy in Brazil, his MS in Plant and Soil Science with Bill Murphy and his Ph.D. in Natural Resources at the University of Vermont. He has experienced interdisciplinary research in grazing management, agroecology, ecosystems goods and services, land use change, conservation policy, green markets, and ecological economics. His work addresses environmental, social and productive aspects of grazing farms, with emphasis on dairy management, ecosystems conservation and sustainable livelihoods in Vermont and New England. In his study, grasslands play a key role because they are complex ecosystems that sustain a vast array of functions and processes delivering benefits for supporting healthy environments and communities.

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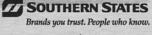
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# VIRGINIA FORAGER



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# A Snapshot of Virginia Pasture

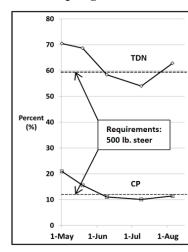
By: Matt Booher

Last spring the Augusta County Extension embarked on a mission to track the nutrition and toxicity of some local fescue pastures through an entire growing season. We did this for a couple of reasons: 1) we wanted to know how fescue alkaloids fluctuate throughout the year, and if the type of grazing management has an obvious effect on fescue toxicity, 2) we also wanted some real-world data with which we could demonstrate the varying feed value of pasture.

The quality of forage is the dominant factor affecting animal performance in most cases, and by better understanding this fluctuating resource we can more efficiently allocate pasture, more precisely supplement cattle, and ultimately get more from the land.

We tracked the alkaloid production and nutrient content of 9 Shenandoah Valley pastures in 2014 from May- December. While the pastures in the study were fescue based, each contained some other grasses and legumes. We sampled only the fescue in an attempt to establish a baseline from which to work. Pastures were sampled every 2-3 weeks during the rapid growth period in spring, and monthly after that.

Figure 1. Average energy (TDN) and protein (CP) content of Shenandoah Valley pas- content of pastures dropped tures in spring and summer.



#### Forage quality results:

2015

The digestibility and protein markedly through spring and early summer as plants matured. With the resumption of leafy regrowth in late summer, forage quality improved markedly. Figure 1 shows the crude protein (CP) and energy (TDN) content of pasture averaged across all the fields in the study. You can see at a glance that both CP and TDN dropped quickly in mid-May around the time seed heads began to emerge, and stayed relatively low for about two

Snap Shot Page 9

## **Meet Whit and Jennifer Morris**

By: Laura Seigle

Their farm business took shape in 2003 when they bought land in Blackstone to support their cowherd. Around this time, Jennifer was an Extension agent in Nottoway and Whit also had a career in agriculture. As the business grew, Jennifer made the transition to caring for the farm full-time, and Whit joins her to manage the farm outside of his job.

Today, the family runs a commercial herd comprised mostly of Angus and Gelbvieh crosses. The farm is primarily a cow-calf operation, meaning that Whit and Jennifer breed their cows and heifers each year, raise the nursing calves to weaning age, and sell the calves after weaning time. They choose some of their heifer calves to stay in their breeding herd. They also send some of their animals to annual Virginia Premium Assured Heifer sales and Virginia Quality Assured feeder calf sales in conjunction with the Amelia Area Cattlemen, a local producer group.

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While the calves born on the Morris farm may eventually go on to feedlot the last few months fore harvest these calve

and



dams spend a considerable portion of their lives out on grass. In fact, the many cattlemen who run cow-calf operations in Virginia know that the most efficient and economical way to manage cows and their offspring from calving time to weaning time is on pasture—pasture which, Whit and Jennifer have learned firsthand, requires strategic management if it is to meet the demands of lactating cows and large, growing calves.

Morris Page 4

Reporting the progress of Virginia's forage industry