

Make Plans for Weaning Spring Calves

By: John Benner

Weaning and backgrounding calves has its challenges. Certainly, facilities are often the greatest obstacle for weaning calves on the farm. Lack of adequate fence, forage, feed or more often than not, water, limit our ability to separate cows and calves and keep them separated. Barring those limitations, labor availability is another resource that we must also supply. Given these drawbacks, why would we not simply pull calves out of the field and drive them into town to the stock sale? The simplest explanation is that weaned and preconditioned calves garner a premium that stocker and backgrounder are willing to pay more for, as they outperform calves and are more problem free than those that have been simply “truck weaned”. Just as importantly, the added weight from pushing calves during a 40-45 day backgrounding process adds dollars to the check.

That being said, any definition of successful weaning must include the phrase “profitable enterprise”. If we do not evaluate and take inventory of our forage and feed resources months in advance and wean calves on a marginal nutritional balance, we will have a much more difficult time. If we have a severely restricted growing season due to drought, the weaning option may not be open to us. Provided we have had a growing season such as this one, here are a few basic recommendations for optimizing labor, feed and forage.

Take inventory of feed and forage resources. By now, much of the hay season is behind us. Even with more hay to harvest, as well as grain and silage still to go, we must evaluate if we have enough pasture and feed to move weaned cattle ahead at 2.0-2.5 lbs. a day for 45 days. See Matt’s article on stockpiling fescue. If you would like help taking an inventory of pasture resources, give us a call.

When should this be done? At least 60 days before weaning.

Sort any intact bulls and their mothers from heifers and steer groups. This is not an issue for many operations that castrate under or around approx. 400 lbs. However, it is an absolute necessity for any producers raising their own replacement bulls. This **will require** good recordkeeping as far as birth dates, calf and dam tags.

When should this be done? 60 Days + before weaning. A possible time is when herd bulls are pulled out.

Combine smaller breeding groups. (bearing in mind step 1) after herd bull pull out to maximize grazing efficiency. This step can be most easily taken concurrently with Step 1. The goal of this step is to keep heifer groups, steer groups and bull groups together in large grazing groups to more effectively rotationally graze. An increase in grazing efficiency will pay off in terms of greater calf weights at weaning and just as importantly, extend the grazing season. If you have only one herd bull group, or this step is impractical due to pasture/cattle location, rotate grazing pastures as best fits your operation.

When should this be done? 60 Days + before weaning.

Whenever possible, fenceline wean. Fenceline weaning reduces the social stress calves experience during weaning. After separating calves from cows, place cows in an adjacent pasture to the calf pasture with fence to fence contact between. Keep cattle in these paddocks for 7 days. After the 7 day period cows may be moved to an additional part of the farm. This is done to increase time calves spend grazing.

When should this be done? At weaning.

Be prepared for sick calves. This step includes ensuring that calves have received all veterinary recommended immunizations including blackleg and respiratory. Secondly, this includes working with your veterinarian on your weaning health plan, and following their guidelines on antibiotic use. The second part of this step is to have enough antibiotics and medicine on hand, in the event of a disease issue. Calves weaned in a dry-lot adjusting to concentrate feed will likely have greater challenges.

When should this be done? Prior to weaning calves

John Benner is with the Augusta County Extension Office.

Hemp, Hemp Hooray?

By: John Fike

Many of you will know Dr. Ben Tracy, Virginia Tech’s grassland ecologist, and will have experienced his dry and wry sense of humor. Salutations go to Ben for this article’s title, which was the subject line in an email he sent me last year on news that the Virginia legislature had approved the research of hemp in the state. The “?” has certainly seemed warranted, but the continued loosening of hemp laws in states across the country, and growing positive perceptions of hemp by Congress suggests that growing hemp is likely to get easier – at least legally, and “?” may yield to “!”. Over time I’ll give occasional updates on Virginia’s efforts with hemp and where the law stands.



Graduate student Jabari Byrd stands among hemp varieties planted at Kentland Farm in Blacksburg. Despite being planted about two months late due to seed delivery and weather issues, some of the tall fiber varieties were approaching 8' in less than 45 days. Photo by John Fike.

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What I Know about Forage Economics?

By: Gordon Groover

First, the key assumption behind this article is that the farm business in managed to make a profit. A second assumption is that the environment farm business managers face is not constant, or to quote Heraclitus, (535 BCE), “The only constant is change.” That is, as prices and technology change then management strategies, enterprises, and capital investments must change for the farm to remain profitable. For example, few cow-calf producers harvest and feed corn silage to their beef cow herd as opposed to what was a common practice 40-50 years ago. Corn silage was and is still a high quality feed for ruminants, yet the capital investment to plant, harvest, transport, store, and feed has increased the total costs of corn silage. On a relative costs basis and with the help of round bale technology the cost of making hay was less than corn silage, leading to wholesale adoption for winter feeding of hay for beef cattle. The round baler reduced labor costs, allowing 1-2 people to harvest and transport hay as opposed to hiring the high school football team to pick up bales and stack them in the barn. This lower labor costs and more efficient harvest and feeding of round bales pushed out corn silage as a winter feed starting in the late 1980’s and early 1990’s. Harvesting and feeding hay has and is still the primary source of winter feed for most cow-calf producers, yet as we see the capital costs of machinery and equipment required to harvest and feed hay reaching \$250,000, we are left to ask, “what might offer a cheaper and/or more efficient alternatives to harvesting, storing, and feeding hay for livestock? The question is easier than the answers. Here are a few brief discussion points to consider.

- A quick back of the envelope calculation of straight-line depreciation of the hay making machinery and equipment over a 15-year life for the equipment, yields \$16,667 of annual depreciation (there are other fixed costs like insurance, taxes, interest, and others that should be included). Also if you have a 40 beef cows and feed hay 120 days you will need to harvest about 72 tons of hay (25 lbs. per cow per day, plus a 25% harvest and handling loss) annually, and based on an average yield of 2.2 tons per yield per acre you’ll need about 34 acres of hay. So before considering any out-of-pocket costs of making that crop, the farm has \$231 per ton in depreciation or about \$500 per acre annual fixed costs. This quick example illustrates that smaller sized beef cattle operations with less than 100 cows should not consider owning hay equipment. Note, used equipment will reduce fixed costs, yet the fixed costs saving must be sufficient enough to reduce your total costs as compared to off farm purchases of hay.

- Rotational grazing supported by improved fencing and water systems has allowed livestock producers to improve utilization of the forages and reduce the need for stored forages. In addition, stockpiling of tall fescue allows for extending the grazing season, further reducing the need for stored forages. Like the round-baler was a change in technology that reduced the cost of harvesting and storing forages, improvements in fence and water systems via controlling animal intake are providing a means to the reduce total feeding costs. This should not be construed to mean that the farm will not need stored forages for winter or drought feeding,

yet the amount should be less. Also consider, if you own all your hay equipment and you implement rotational grazing, you may actual increase your total costs and reduce your ability to remain profitable. Thus consider the necessity to calculate your total costs and compare alternatives such as reducing your equipment investment and purchasing hay, otherwise you may have the worst of both worlds, well, in terms of costs. Relying on purchased hay also requires that you develop a long-term strategy to obtain the hay needed to cover grazing deficits.

- A side note, if your hay supply is the sole sourced from your farm and you experience a drought you will buy your hay twice that feeding season. That is, the annual expenses of fertilizing and maintaining the stand, plus the expenses of purchasing new hay to replace the drought loss. A long-term strategy for your hay supply is the key to a reliable hay supply year-in and year-out.

- Purchasing hay comes with a redeemable coupon. The value of that coupon is determent by the nutrients in that bale of hay, the price of each nutrient, and how the hay is fed. A quick estimated could yield \$30-\$50 worth of nutrients as a rebate on the purchase price of the hay. However, there can be drawbacks to redeeming this coupon. First, if you feed hay in one location, concentrating all the off-farm nutrients will not provide much benefit the farm’s pastures. Rotational feeding of hay around the farm will help disperse the nutrients across the pastures. Second, you may import weeds and undesirable plants to your farm potentially increasing costs to manage pastures.

- Increasing pasture utilization via rotational grazing and purchasing hay off the farm has the potential to increased livestock or caring capacity and profits. This assumption depends greatly on the farm’s starting point and overall management. Note: Machinery and equipment are a costs not an income producing asset (unless you do custom work), and most importantly, cows are the only income producing asset on most beef cattle operations.

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Your Range & Pasture Specialists



This Fall—Feed Hay to Grow Grass

By: Matt Booher

When pasture is in short supply, sometimes the instinct is to keep the hay in the barn, tough it out, and graze on at the first sign of fall rain and green grass. Next time you are in this situation, consider confining livestock and feeding hay in order to grow grass. Grazing continuously—especially when plants are trying to bounce back from the summer slump—can easily slow regrowth and reduce overall pasture tonnage. By pulling animals into a sacrifice field and feeding hay you can take advantage of good growing conditions to maximize production in pastures for grazing later in the fall. As an example, suppose you move 25 cows from a 50 acre pasture into a sacrifice field on September 1 and feed hay for a month. During that time your pasture could be growing at a rate of 25 pounds of dry matter forage per day. In a month's time, the pasture will have produced about 20 tons of total dry matter and you will have fed about 12.5 tons of hay to the cows. On the other hand if you graze the pasture continuously through September, there would be little to no net accumulation of forage. There may well be grazing through the remainder of the season, but it is day-to-day and ends when pasture stops growing. Alternatively, the 50 acres of rested pasture could be grazed in blocks or strips, in this scenario resulting in *an extra 30 days of grazing*.

To take things a step further, get an even longer grazing season by planning to exclude livestock and stockpile some of your pasture through the entire fall. This requires some advanced planning to support livestock on limited acreage in fall or even to feed some hay when it seems illogical, but the result can be an significant reduction in overall feeding costs. On average, each acre of properly stockpiled fescue pasture will provide about two months of winter grazing for one cow. At current hay prices, each month that beef cows are grazed rather than fed hay results in a cost savings of about \$12/ head.

Even if you choose not to stockpile pasture for winter grazing, at least apply the principle of feeding hay or confining animals to a sacrifice area in order to rest pasture during times of stress or recovery. A little extra rest for your pasture will go a long way toward growing stronger root systems, more leaf area, more forage, and lower feeding costs.

Matt Booher is with the Augusta County Extension Office and serves on the VFGC Council.



Preventing and Treating Foot Rot

By: John Benner

This year has been a blessing in terms of forage production, spurred on by above average moisture. However, a wet summer often contributes to greater incidence of certain cattle health risks, including foot rot. Foot rot's primary pathogen, fusobacterium necrophorum, is an anaerobic bacterium that is found in the environment. It can be found and cultured on animal feces, hooves, and muddy soil. It gains access through an injury, however minor, to the tissue in the hoof. F. necrophorum can also enter the interdigital skin layers when cattle have been standing in wet conditions for prolonged periods. This year, wet and muddy ground has been more common, leading foot rot to be a greater cause for concern for some than normal.

Often as the case is with other summer health concerns, such as pink eye, foot rot can sometimes be observed as being more prolific in certain pastures than others. More often than not, these cases arise more frequently when cattle are grazing in pastures with wet ground. It is critical to observe cattle daily during these grazing periods and take the time to note behavior and look carefully for even the slightest signs of lameness. Likewise, a treatment plan should be in place prior to turning cattle into wet pastures should clinical cases of foot rot arise. This treatment plan should include budgeting time to bring cattle into a working chute and pen area as well as having several different label approved antibiotics to treat cattle in correct dosages. Provided that cases are observed early, label directions of approved antibiotics for treatments should have the desired remedial effects. Veterinary prescribed off label usage of non-approved drugs is acceptable, but generally, is not the low cost option for treating foot rot cases. However, there are exceptions, and with a good veterinary-client-patient relationship, your veterinarian will be able to make the proper recommendation in these cases.

Once cattle identified as lame are brought into the chute, take time to study the affected hoof (hooves) and be sure that the lameness is derived from foot rot. Examine the foot and leg for other common ailments such as overgrown toes, sole abscesses, fractures and abrasions. Look



for interdigital tissue is swollen with noticeable decay as depicted here:

Iodine and other anti-microbial scrubs may be helpful in removing dead tissue. As with all cattle drug uses, follow label and/or veterinary instructions. Additionally, write down and record every calf/cow treated, drug used, dosage and administration route. This is particularly important with older cows that may be on the cull bubble, or deciding to use a different product if cattle are unresponsive to initial treatment.

John Benner is with the Augusta County Extension Office.

Upcoming Events

Small Ruminant Field Day
October 21, 2016
VSU Randolph Farm
mklein@vsu.edu

AFGC 2017 Annual Conference
January 22-24, 2017
Hotel Roanoke and Conference Center-
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www.afgc.org

National Goat Conference
February 17-19, 2017
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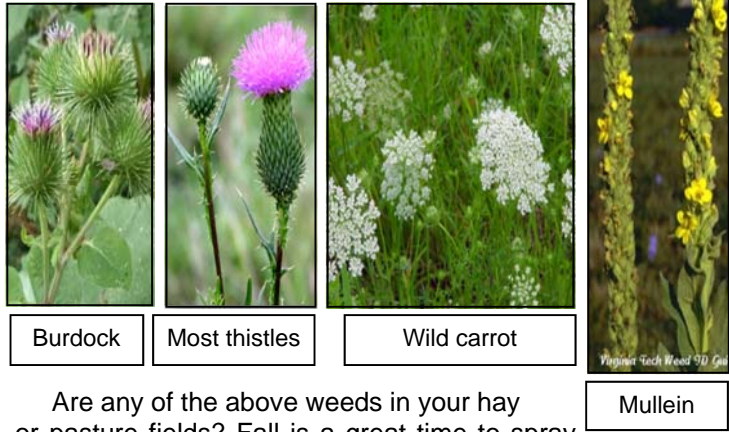
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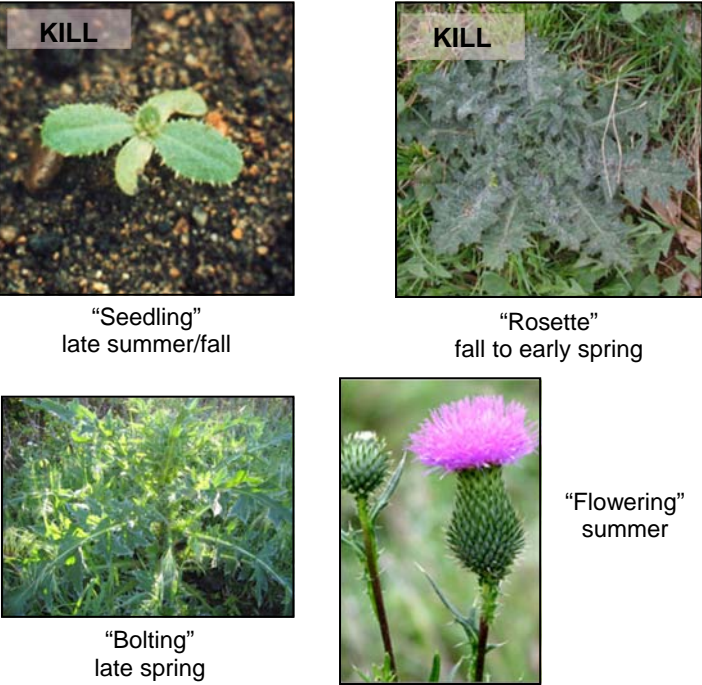
Spray Hay & Pasture Now for Cleaner Fields Next Summer

By Matt Booher



Are any of the above weeds in your hay or pasture fields? Fall is a great time to spray for the biennial weeds shown above, as well as many others. Biennials- including most of our thistle species and wild carrot- have a life cycle that spans two years. The wild carrot flowers or 6 foot-tall thistles you see now are at the end of their life. Next year's problem plants are starting right now as seedlings that will overwinter as rosettes and send up a flowering stalk late next spring. Sprayed in the seedling or rosette stages (fall to early-spring), these weeds are easy to kill. Spraying after plants begin their upright growth is a losing battle- often referred to as "recreational spraying". So spray your pasture and hay fields this fall and wipe out the next generation of biennial weeds. As a bonus you'll be hitting any perennial weeds as they send sugars (and herbicide) to roots for winter.

Below: Illustration of the life cycle and strategic timing of herbicide application for biennial thistles.



Matt Booher is with the Augusta County Extension Office and serves on the VFGC Council.

which focused on low stress cattle handling techniques and proper injection practices in order for members of the BQA to maintain their certification.

The second half of the program focused on the work of the VFGC at the farm. During this time John talked about the conditions of the farm prior to the beginning of the pasture rotation project; explaining that Summerfield Farms was under continuous grazing and the fences were in disrepair. As a result of these conditions the pastures were underutilized in some areas and over grazed in others. These conditions also made locating and working the cattle difficult. Mr. Fant gave a tour of his rotational grazing system during this time, and explained to everyone the benefits that he has received from its installation. After the implementation of the rotational grazing system an area that consisted of approximately ninety-two acres was divided into twelve paddocks. As part of the project the cattle were fenced out of the streams in the paddock system. Benefits received from the implementation of the system included: increased grazing efficiency, reduced stress on the animals and himself, reduced hay consumption in the winter, and that working the cattle has become easier. Other benefits that John has noticed are increased water quality in the streams on the farm, which John has observed by performing water quality tests himself, and increased wild life in the buffer areas along the streams due to an increase in available habitat.



Katelyn Cox, a grazing demonstration technician with the VFGC also explained her work on the farm during this portion of the event. Since May, Katelyn has been conducting pasture condition scores in the paddock system, collected soil samples, and performing other duties such as photographing the paddocks so that the VFGC can examine how the installation of a rotational grazing system affects and potentially improves soil health and productivity. Along with the other speakers there were also several fencing contractors and water system installers present at the event who spoke about their businesses so that others who were interested in implementing a similar rotational grazing system on their farms could establish contacts with people in the business.

Re-explore Stockpiled Fescue for Time and Cost Savings

By: Matt Booher

With the rainy summer and good forage growth we've had so far this season, this year is shaping up to be a great one for fall stockpiling of pasture. Whether you are old or new to the practice of stockpiling fall pasture for winter grazing, take this opportunity to be reminded of your upcoming duties to make it happen. Now that we've hit August, find some way to remove the existing growth from the pasture to be stockpiled. Make hay, bushhog it, graze it – the goal is to remove mature and dead plant tissue and allow sunlight to get down to the young tillers that will provide the majority of fall growth. At this same time, apply nitrogen as either manure or fertilizer (around 50 lbs. of N/acre) if your pasture doesn't have a significant legume component. While a nitrogen application is not necessarily required, it usually results in significantly more pasture tonnage, as well as significantly better protein and energy content of the forage. The most important part of the stockpiling process is to prevent animal access throughout the entire fall while growth is accumulating. While it is tempting to graze the stockpile on a limited basis, the best winter grazing will come from pasture where grass grew thick and un-grazed throughout fall. When grown in this manner, the result is forage that remains green and nutritious underneath the brown canopy. In most cases you can pull back the stockpiled grass to reveal green growth far into winter – I have seen this even in February and March.


So what can you expect to get out of stockpiled fescue? We've done multiple stockpiling demonstrations in the Shenandoah Valley in recent years, and have collected a pretty good bank of forage quality information and a decent feel for how much grazing time can be expected. One of the greatest benefits of stockpiling fescue for winter is that it has great forage quality that will meet the needs of virtually any group of animals. Crude protein values in December typically begin at around 13-14%; energy values we have seen range from 67-70% total digestible nutrients (TDN). To give you some idea of how this meets animals' needs, consider that a cow in early lactation will require a diet around 10% crude protein and, 59% total digestible nutrients. A quick comparison will show that fall calving cows grazing stockpiled fescue are getting better nutrition than those being fed virtually any first cutting hay and most second cutting hay out there. Stockpiled fescue will lose some of its quality if left to sit over the winter months- more so quick comparison will show that fall calving cows grazing stockpiled fescue are getting better nutrition than those being fed virtually any first



cutting hay and most second cutting hay out there. Stockpiled fescue will lose some of its quality if left to sit over the winter months- more so when weather is mild, but in most cases it will still test out at around 12% crude protein and 60% total digestible nutrients in January. In recent demonstrations in the Shenandoah Valley, stockpiled fescue that remained to be used in March still held an average quality of 11% crude protein and 57% total digestible nutrients.

How much acreage should be set aside for stockpiling? That depends greatly on how grazing is managed on the stockpile. If left to graze over the entire field, cattle will typically consume 50% or less of available forage – the rest is trampled or wasted. By restricting animal access to several days-worth of grazing at a time, we have seen animals use closer to 75-85% of available forage. So although it takes a little more labor, a strand of temporary fencing moved every 2 or 3 days can almost double the amount of feed that is captured from a stockpile pasture. In our demonstrations, stockpile yields ranged from 2,000-4,500 lbs. per acre, depending on rain and fertility. The cattle producers involved in the demonstrations reported as a whole, each acre stockpiled supported one mature cow for about 2 months. Labor requirements as reported by participants, were typically less than 30 minutes per day to move temporary fencing (usually fencing is set up for two-moves and one wire is leap-frogged over the next). When all labor and expenses were figured, the cattle producers involved in the demonstrations reported that grazing stockpiled fescue resulted in significant time and cost savings.

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New Herbicide Options for Foxtail Control in Hay & Pasture

By: Matt Booher



Yellow foxtail Green foxtail Giant foxtail

Yellow, giant, and green foxtail are all common in Virginia. They are all clump forming summer annuals, spreading only by seed. Seeds germinate from late-May through mid-summer, often seeming to take over pasture and hay fields in August and September when they bloom and set seed.

The premier chemical for control of foxtail is quinclorac, marketed as Facet L, or as the generic QuinStar. Quinclorac offers in-season preemergence and postemergence control of foxtails, as well as other summer annuals including fall panicum, crabgrass, barnyardgrass, and ragweed. Postemergence activity, however, is only effective on seedlings up to 3 or 4" tall. Even though most summer annual weeds like foxtail are not noticed until late in summer, they actually begin germinating in mid-May through June. Consequently, an application of quinclorac in late-May or early-June works well to kill emerged grasses when they are small and to control seeds that have not yet germinated. Because quinclorac's effectiveness depends heavily on preemergence control, it is important that it be applied in situations that allow the spray to contact the ground (i.e. hay or thick pasture removed). It is advisable to make first cutting hay as usual, and plan to apply quinclorac as soon as hay is off the field.

Quinclorac is not recommended to be mixed with liquid fertilizer, but it can be easily tankmixed with 2,4-D or dicamba. **It must be mixed with a crop oil concentrate or methylated seed oil.** There are no grazing restrictions with quinclorac; the only restriction is that you must wait at least 7 days after an application **before** you can cut it again for hay.

Recently pendimethalin (Prowl H2O) received a supplemental label to allow its use in hay and pasture. Pendimethalin is strictly a preemergent herbicide, meaning it will have no effect on weeds that have already germinated. Good ground coverage must be achieved to obtain effective preemergence activity, therefore restricting applications to early spring or after hay removal. An early-spring application could lose efficacy by the time many weeds begin emerging. At the same time, an application after the first hay harvest will likely miss large flushes of summer annuals that have already emerged. There is no preharvest or pregrazing interval for Prowl H2O. It can be mixed with other herbicides such as 2,4-D or

with other herbicides such as 2,4-D or dicamba to control emerged broadleaf weeds. One last strike against Prowl H2O is that it stains everything it touches a mustard yellow color, making mixing and loading interesting. In summary, pendamethalin is an option but it is much more dependent on timing of application than quinclorac.

We are currently conducting herbicide trials to explore options for tankmixing quinclorac with pendamethalin, perfecting application timing, and tweaking herbicide rates. Contact your Extension agent for more information on upcoming demonstrations.

Matt Booher is with the Augusta County Extension Office and serves on the VFGC Council.

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- A few side notes: 1) annual leases do not support investment in grazing infrastructure and for these farms to be successful, most will rely on feeding hay. Negotiating long-term leases that support improved grazing infrastructure can be structured to benefit both the landlord and tenant and support eligibility for cost-share; 2) famers with multiple farms that cannot be managed as a unit provide challenges to efficient grazing and in all likelihood must rely on hay feeding; and 3) machinery fixed costs are lower on diversified farms that make use of equipment over a larger acreage, thus lowering the total annual fixed costs across all enterprises.

Jump ahead a few decades, what technology will come along that will make rotational grazing more or less cost effective? No one knows, new research may lead to genetic changes in animal and/or plants, new harvesting technologies that would reduce total forage harvesting costs, or improved animal control technology using GPS or some other technology further reducing grazing cost. These are all speculations on the future, yet farmers and their advisors will need to know and weigh their costs and benefits for their farm business as these changes appear in their future. As Heraclitus states, "the only constant is change." I know that the economics of forages production alternatives will change and understanding your costs will help stay ahead of these future challenges to remain profitable.

Gordon Groover Extension Economist Farm Management, AAEC Department, VA Tech

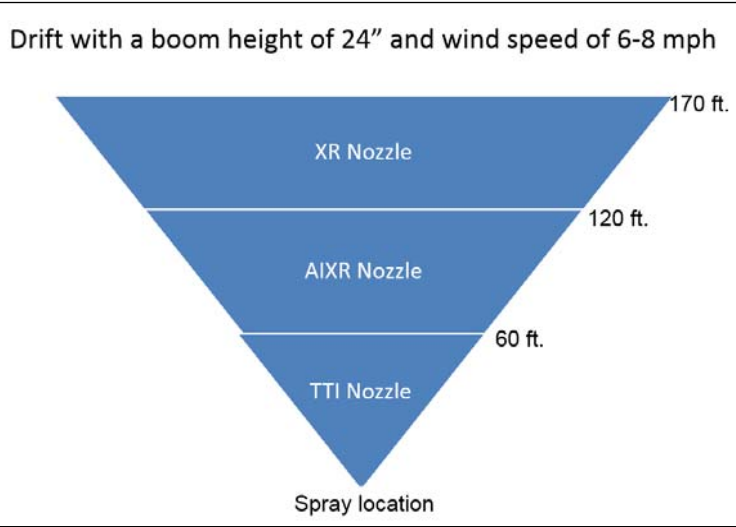
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Take Advantage of Nozzle Technology to Enhance Spray Performance

By: Matt Booher

Selecting nozzles for your sprayer these days can be extremely confusing. With dozens of nozzle designs available and countless sizes and variations, it can be tempting to just continue on with our old no-frills "flat-fan" tips. Ignoring new nozzle options, however, forfeits some great benefits including drift reduction, improved coverage, and better performance under less-than-ideal conditions.

Drift is often talked about only in terms of liability, but you should also view it in terms of herbicide efficacy. As shown in the diagram at right, nozzles such as the standard or XR flat fan produce mainly fine or medium sized droplets that are subject to movement away from the target. Newer nozzles such as a chamber or air induction produce coarse to ultra-course droplets that resist drifting. This can mean better delivery to the target pest, particularly at higher wind speeds. The information below describes the step-wise evolution of nozzle technology. If you are looking to replace your old flat fan nozzles then any of the later designs should be an improvement, but the chamber + induction nozzle is the latest and greatest for most applications.



Flat fan. The old standard "flat-fan" nozzle featured a single orifice and normally operates at 30 -60 psi. Extended range versions allow for lower operating pressures down to 15 psi. These "XR flat fans" have worked well, but newer designs offer less drift, and better delivery of spray to the target under a wider range of pressures. Nearly all droplets produced by standard flat fan nozzles are highly-driftable fine and medium size.



Chamber nozzle. Chamber nozzles (such as the Turbo TeeJet) incorporate a pre-orifice with an internal-turbulence chamber. These design improvements result in larger, less-driftable droplets and improved spray pattern uniformity. Their recommended operating range is 15-90 psi. Excellent for pasture herbicides, particularly systemic chemicals such as GrazonNext HL or Cimarron Plus.



Air-induction. The air-induction type nozzle produces large drops through the use of a venturi air aspirator for reducing drift. By incorporating air into the solution, a large-droplet, air-fluid mixture is produced. Air induction nozzles operate from 30 -100 psi; an extended range option allows for an operating pressure down to 15 psi. Excellent for the systemic herbicides commonly used in pasture and hay.



Chamber + Induction. The latest in nozzle evolution is the Turbo TeeJet Induction (TTI), which is a chamber + air induction nozzle. Similarly to the air induction, it has an extremely wide pressure operating range, but results in even less driftable, fine droplets. Again, excellent for soil applied or systemic applications .



Interesting fact: Air-induction (Venturi-type) nozzles produce large droplets that resist drifting but that shatter on impact, providing improved coverage. Examples of these nozzles include: Delavan AgSpray's Raindrop Ultra, Greenleaf Technologies' TurboDrop and AirMix, Lurmark's Ultra Lo-drift, Spraying systems Co's air induction AI and TTI, ABJ Agri Products' Air Bubble Jet, Wilger Industries' Combo-Jet.

Matt Booher is with the Augusta County Extension Office and serves on the VFGC Council.

Silvopature Page 2

Finding the right balance between tree spacing to foster forage growth but maintain tree vigor and form is difficult, especially in thinning an existing forest with inherent variability. For example too much sudden sunlight on a tree's trunk is stressful. Depending on the severity of the stress it can result in epicormic branching (small whipping branch growth out of the previously "clear" tree trunk) which degrades value or, even worse, results in mortality. This is a big deal to me as a forester... but is losing a few trees a problem to a livestock producer who might largely value the cooling shade for his primary crop of livestock?

We are learning as we go and it's a privilege to work with innovative, creative and risk-taking landowners and an interdisciplinary team of forage, livestock and forest professionals.

Since 2001 Adam has worked as the Forestry and Natural Resources Extension Agent serving Virginia Cooperative Extension's Northern District, a 25 county area generally described as the Northern Piedmont and Shenandoah Valley of Virginia. His professional expertise is in providing informal education regarding forestry and natural resources to address current issues in rural, urban, and rural/urban interface areas to home & landowners, professionals, decision-makers, and the general public. His mission is to enable people to make best decisions regarding the forest & natural resources, within their realm of influence, resulting in environmentally sustainable management, growth, and quality of life for that person and that community.

President’s Message



“When it Rains it Pours”, so they say. Nothing could be truer for this year’s growing season. We started off dry in March and April only to witness a late spring and so far this summer more rainfall than most are use to for this time of the year. Our good fortune has certainly left us in great shape to support continued forage growth for our livestock

As we begin late summer and early fall, let us not forget the value of tall fescue. Fescue is certainly the abundant forage base of the majority of pastures in Virginia. Too often we focus on the negative aspects and forget about the positive potential it provides us and our livestock. With the proper use and management we can certainly use it to its fullest advantage.

Stockpiling tall fescue in late summer and early fall is certainly not a new concept to many livestock producers. This is the time to apply 50-60lbs. per acre of soluble nitrogen to fescue pastures. We need to remove livestock from the fertilized pastures until those pastures are subject to a hard killing frost in late October or November. Once a hard frost occurs livestock can be placed back for late fall and early winter grazing.

We often discredit the value of tall fescue that is endophyte infected. Waiting to graze infected tall fescue in the late fall and early winter helps to offset some of the negative aspects that the endophyte causes. You will more than likely find that the stockpiled tall fescue being grazed will have higher nutritional quality than most grass hay harvested annually in Virginia. Also remember each day it is grazed is one less day of putting out stored feedstuffs.

As we experience cattle prices that continue to be unsettled, we as producers need to take advantage of ways to maintain acceptable profit margins. It’s time to consider taking advantage of the abundant moisture most of us have been experiencing and decide how stockpiled fescue can fit and be utilized in our livestock operations.

VFGC has also been, along with other cooperating agencies, raining down a number of educational events this summer. We thank everyone who has had a part in these significant events. You can continue to learn about these and upcoming opportunities via this and future newsletters, our Web Page and Facebook Page.

On another positive note it is time for everyone to mark their calendars for January 22 thru 24, 2017. These are the dates for the 2017 American Forage and Grassland Council Annual Meeting to be held at the Hotel Roanoke in Roanoke, Virginia. The VFGC will be the host of this three day educational event. You won’t want to miss the opportunity to get updated on the cutting edge research being done in regard to forage production and management and visit with livestock producers form across the country. More information will follow as we get closer.

Until next time,

Jon Repair
President, VFGC

Silvopasture From a Forester’s Perspective

By: Adam Downing

As an extension forester for nearly the past two decades it’s been fairly easy to engage private forest landowners, at least the ones who, for the most part, don’t consider themselves “farmers”. In my observations, landowners participating and active forest management are generally those who see that as their primary land-based activity. Farmers, on the other hand, generally view their woods as a secondary land-based resource. While it’s a valued and appreciated resource, their “woods” don’t require the same kind of intensive inputs and management as other agricultural endeavors. As such, efforts to apply forest management principles and improve woodlot productivity may straggled behind more urgent needs. It is from this perspective that I began looking into various agro-forestry practices. Could they be a tool to better engage farm based woodlot owners? In particular, could silvopasture be a “bridge” between livestock producers and better forestry practices?

The first serious look I took into agroforestry was some work I had heard was going on in New York with Cornell University and livestock in the woods. Like every other forester, my first question, reaction really, was rooted in the fundamental teaching of “Cows are bad for forests”. Like so

many things in life, it’s not that simple. The potential negative effects of livestock near trees has a lot to do with livestock management and that’s 180 degrees from simply turning cows loose in the woods for shade.

Fast forward several years to an opportunity to engage with this practice first hand. I’ve watched a silvopasture system go into an open field and I’ve “made silvopasture” out of existing woodlots. As a forester, I’ve had to turn some of my training around to not only keep long-term tree productivity and value in mind but to incorporate annual components such as forage and livestock needs.

Before I’d enter a woodlot with an eye to regeneration of the forest stand and allocating growth resources to add woody cellulose (increase diameter growth). Now I’m one of a few foresters who know something about animal comfort and growing digestible cellulose (forage). Balancing these demands on a given piece of land is challenging and requires interdisciplinary knowledge and experience.



American Forage & Grassland Council
2017 Annual Conference
January 22-25 in Roanoke, VA
Registration Form

You may also register online at www.afgc.org • Questions? Please call AFGC at 800.944.2342.
On line registration ends January 18, 2017. After January 18, 2017, you must register on-site in Roanoke, VA.

Name (Mr., Ms., Mrs., Dr.) _____

Companion’s name if attending _____

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ Email _____

| REGISTRATION FEE OPTIONS (CIRCLE CHOICES) | THROUGH JANUARY 13 | | AFTER JANUARY 13 | |
|--|-----------------------|-----------|---------------------|-----------|
| | MEMBER | *NON-MBR. | MEMBER | *NON-MBR. |
| NOTE: TOUR REGISTRATION IS A SEPARATE REGISTRATION ITEM. | | | | |
| Full Conference Registration | \$295 | \$350 | \$345 | \$400 |
| Full Student Registration (ID Required) | \$130 | \$150 | N/A | N/A |
| Producer Day (Monday Only Registration) | \$75 | \$125 | \$100 | \$150 |
| Spouse Registration Full Conference | \$150 | | \$160 | |
| Spouse Monday Only | \$ 65 | | \$ 80 | |
| Forage Bowl Participant | \$ 75 | | \$ 80 | |
| Tour Registration (Non-refundable) | \$ 25 | \$35 | \$ 40 | \$50 |

*MEMBERSHIP TYPICALLY LESS THAN DIFFERENCE IN MEMBER AND NON-MEMBER RATE. GO TO WWW.AFGC.ORG.

ADDITIONAL REGISTRATION OPTIONS

Farm Tour on Sunday, January 22, 2017: \$ 25 / \$35 x _____

Certified Forage and Grassland Professional Exam, January 22: \$100 x _____

Banquet Tickets on Tuesday, January 24, 2017 \$ 50 x _____
(Included with full registrations)

TOTAL AMOUNT ENCLOSED: \$ _____

Please notify us of any special dietary or physical requirements: _____

The conference proceedings will be available online to all attendees.

METHOD OF PAYMENT

____ Check enclosed made payable to the American Forage and Grassland Council.

____ VISA ____ Master Card ____ American Express

Card Number _____ Expiration _____

Card Security Code (last 3 or 4 digits of number located on back of card) _____

Name as it appears on Credit Card _____

Send completed form and payment to: AFGC, PO Box 867, Berea, KY 40403; or Fax 859.623.8694. The Registrations cannot be processed or confirmed without complete payment.

Cancellations received in writing by January 1, 2017, will receive a full refund less \$25 processing fee. Cancellations received after January 1, 2017, will not receive a refund. Any questions, please call AFGC at 800.944.2342.



VIRGINIA FORAGE AND GRASSLAND COUNCIL
3599 Indian Oak Road
Crewe, Virginia 23930



Hemp from Page 6

Research efforts are now underway in the state. The Virginia Department of Agriculture and Consumer Services (VDACS) has provided a small amount of seed money to get research started while also addressing the legal and import issues we faced. Despite VDACS' efforts to make things go smoothly, legal agreements with seed companies, law enforcement paperwork, shippers' concerns about import hurdles, and burst bags of seed all were issues that delayed our plantings this season.

Still, the show has gone on. Virginia Tech and Virginia State University have focused on variety trials and agronomic management. JMU is working with farmer-cooperators to test hemp for bio-oil production on a field scale and the spent meal may become part of a poultry ration. Hemp may even have some potential use as a forage, but all of that will have to be part of a future article.

John Fike, Ph. D. is a Forage-Livestock and Biofuels Research with Virginia Tech's Crop and Soil Environmental Sciences.

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VIRGINIA FORAGER

A publication of the Virginia Forage and Grassland Council



Volume 37 Number 4

Fall 2016

AFGC WILL HOLD ITS ANNUAL MEETING THIS JANUARY IN VIRGINIA

Berea, Kentucky, August 29, 2016—The American Forage and Grassland Council (AFGC) will host its Annual Meeting January 22-24, 2016 at the Hotel Roanoke and Conference Center in Roanoke, Virginia. The theme is "Turning Grass into Ca\$h: Opportunities in Grassland Agriculture."

The 2017 AFGC Conference will begin with a tour highlighting two outstanding operations, Tuck Farm and Dawn Dairy. Tuck Farm will focus on their winter grazing program and Dawn Dairy will focus on their perennial forage base establishment. Both stops will provide attendees with a first-hand look at excellent forage management practices.

The conference will feature workshops focused on restorative grazing, market opportunities, pasture based dairies, mob grazing, sheep production, and more. In addition to workshops, the conference offers scientific poster presentations; an outstanding exhibit hall representing seed, chemical, fencing and other industry companies and organizations; many networking opportunities; and several competitions such as the Forage Spokesperson, Emerging Scientist, Photo and Essay Contests.

According to AFGC President, Chris Agee, "we are extremely fortunate to have the guidance of producer and AFGC board member, Mark Kennedy serving as conference chair and Chris Teutsch and Matt Poore as program chairs. The entire 2017 planning team has put together an amazing program focused on the many facets of the forage industry providing value for everyone."

There are over 60 educational opportunities over the two-day conference qualifying for CEU credit in the Certified Forage and Grassland Professional designation program offered by AFGC.

Details and registration are available on the web at www.afgc.org. Or, contact AFGC at 1.800.944.2342 for information or questions and on page 10 of this newsletter.

The American Forage and Grassland Council is an organization comprised of 22 affiliate councils with over 2,500 members and is the leading voice for economically and environmentally sound forage based agriculture. Founded in 1944, its primary objective is to bring producers, educators, scientists, and industry professionals together to promote and advance forages in agriculture.

Summerfield Farms Field Day

By: Katelyn Cox

As part of the project at Summerfield Farms, the Virginia Forage and Grassland Council (VFGC) in partnership with the Grayson County Cooperative Extension Service, and Virginia Farm Credit, hosted a Beef Quality Assurance (BQA) certification and summer field day at the farm on July 19, 2016. As part of the Program for the evening John Fant, the operator of Summerfield Farms, gave a tour of his newly renovated cattle working facility. John described the conditions of the old facility, which was built on a slope allowing erosion to take place and that working the cattle was very difficult, due to cattle being able to get over and through the fences. He also explained that his main concern in designing the facility was the safety of both his workers and the animals.

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John and a representative from the Cooperative Extension Service also gave a cattle working demonstration

Summerfield Page 4

Reporting the progress of Virginia's forage industry