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Attention to Detail Leads to Wildlife Food Plot Success for S.C. Landowner

Florida native Walter Gilbert has been hunting deer in the Low Country of South Carolina for some 30 years. As a teenager, he assisted with planting food plots but admitted, "We always seemed to struggle getting food plots established." So when his family purchased their own plantation property just outside of Tillman, S.C. in 2013 and gave management responsibility to Walter, he vowed to "do it right." "My father went to school with an individual who owned a nearby plantation," related Walter. "The caretaker there introduced me to Colleton County Extension Agent, Marion Barnes." It turned out to be a rewarding introduction. "Marion has been a wonderful source of good information," exclaimed Gilbert. From Barnes' perspective, it has



South Carolina landowner Walter Gilbert (L) credits Clemson University Ext. Agent Marion Barnes (R) with being a valuable resource for wildlife food plot information and advice on his Pecan Hill Plantation. He and Barnes inspect clover roots for nematode damage.

been an enjoyable experience working with the young wildlife enthusiast. "Walter is a 'sponge' for knowledge," declares Barnes. "He is truly interested in doing things right. I have learned quite a bit myself through the trial and error experiences with Walter."

"From the very outset, Marion told me that the goal for producing food plots should be just like that of commercial crop farms – high production," states Walter. The knowledgeable county agent explained that successful and productive wildlife food plots started with good soil fertility, correct land preparation, proper seeding rates and adequate fertilization. "Marion also told me that I needed to think like a scientist," says Gilbert. "He strongly emphasized the importance of keeping good records and paying attention to details like accurately knowing all field sizes, weighing the amounts of seed and fertilizer used and scouting for disease, weeds and insects." It also meant experimenting with different food plot

plants, seeding rates and fertilization techniques to determine what worked best on his farm under his specific management. That led Walter to establish a small area dedicated to testing new food plot products that he had heard or read about prior to using them in the field.

It was Walter's thirst for knowledge that led him to wildlife biologist Chuck Sykes and his



Gilbert says one of the keys to successful food plot establishment on his sandy soils is using a culti-packer to smooth and firm the seed bed both before and after planting.

online show, *The Management Advantage*. Then a personal contact by Walter led to one of T*he Management Advantage* video clips being filmed at the Gilbert's Pecan Hill Plantation. It was also through *The Management Advantage* that Walter learned about Pennington's **Durana** perennial white clover. "Chuck made a statement that stuck with me," recalls Gilbert. "He said don't wipe out the dinner table." He took that advice to heart and began adding high quality perennial forages like Durana and chicory to his food plot plantings. "There was lots of information about Durana on Chuck's website, so I thought I would give it a try," states Walter. (*continued on page 5*)



Pennington Expands Cover Crop Emphasis with New Mixtures and Added Customer Support

Following a successful inaugural fall 2015 sales season, Pennington is expanding its cover crop emphasis with new product seed mixes, optional delivery packaging and additional resource support. The Field Guard[™] cover crop seed mix line-up has expanded to eight products with each formulated to match specific goals of the user whether they be to provide general ground cover, build fertility, improve soil structure, prevent erosion or a combination of all four. (See Table 1)

As with all of Pennington's forage, wildlife and lawn seed products, only the finest quality seed are used in the Field Guard[™] cover crop product line. The various plant species used in the Field Guard[™] line-up offer high germination

percent, excellent plant vigor and proven performance. This ensures uniform growth and coverage across the field unlike some commodity products that often yield inconsistent cover and questionable weed content. A number of our pre-formulated and custom blended mixes contain Pennington's university tested and farmer proven proprietary plant species that offer characteristics uniquely suited for cover crop use. (See Table 2)



Table 1

Benefit Ratings of Pennington Cover Crop Mixes

		Nitrogen	Nutrient	Soil	Weed		Quick	Erosion
Mix	Туре	Source	Scavenger	Conditioner	Suppression	Grazing	Cover	Control
Cover Star	Grass/Legume	**	***	**	***	***	***	***
Cover Star II	Grass/Legume/Brassica	**	***	***	***	***	***	***
Pan Buster	Grass/Brassica	-	***	***	***	***	***	***
Pan Buster II	Grass/Brassica/Legume	**	***	***	***	***	***	***
Yield Up	Grass/Legume	***	**	**	**	***	***	***
Cover Lover 3-Way	Grass/Brassica/Legume	**	***	***	***	* * *	***	***
5-Way All Purpose	Grass/Brassica/Legume	**	***	***	***	***	***	***
6-Way All Purpose	Grass/Brassica/Legume	**	***	***	***	***	***	***

** Good *** Excellent

Pennington Field Guard[™] Cover Crop Mixture Ingredients

Table 2

			ARG-1	AU Sunrise	Med. Red	Austrian	Root Plow	
Product	Rye	Oats	A. Ryegrass	Crimson Clover	Clover	Winter Pea	Radish	Rape
Cover Star	*	*		*				
Cover Star II	*	*		*			*	
Pan Buster			*				*	
Pan Buster II			*	*			*	
Yield Up	*			*	*			
Cover Lover 3-Way	*			*			*	
5-Way All Purpose	*	*		*		*	*	
6-Way All Purpose	*	*	*	*			*	*

(Continued on page 4.)

BERMUDAGRASS AS AN EQUINE FORAGE By Lucy Ray, Morgan County, GA Extension Coordinator

Chances are if you have spent much time around horse people, at some point you have heard "*I can't feed bermudagrass hay. My horse will colic on it*". This myth, which is more prevalent in urban areas where the population is farther removed from agriculture, has been around for at least two decades. In some cases, horse owners refuse to plant bermudagrass in their pastures out of fear that this species of grass will cause colic in horses in either a fresh or cured state. However, this myth is not entirely accurate. Bermudagrass is an excellent forage choice for the southern U.S. It is heat and drought tolerant, and responds well to fertilization. When properly managed, bermudagrass has high digestibility and handles overgrazing and treading fairly well.

So why the bad reputation?

Horses need to consume approximately two percent of their body weight in dry matter daily with about 50% of that from some type of forage. This is important because the fiber from forage is necessary to maintain the integrity and fill of the horse's

gastrointestinal tract. Because horses are hind-gut fermenters rather than fore-gut fermenters like cattle, they are more prone to digestive upsets such as colic. Impaction colic, where feedstuffs become impacted in a portion of the large intestine, is commonly blamed on whatever the horse had been eating prior to becoming sick. Fine stemmed forages, like some varieties of bermudagrass, have a bad reputation based on the thought that they are more easily impacted in the animal's gut. Since the majority of horses in the Southeast are fed bermudagrass at some point via pasture or hay, many of the horses that are admitted to a veterinary hospital for surgery have bermudagrass in their digestive tract.

Forage quality a major factor

Forage quality is important when considering hay for horses. Forage testing the hay to determine nutrient content is strongly advised. Particular attention should be given to the neutral detergent fiber content (NDF). NDF is composed of hemi-cellulose, cellulose and lignin and research has shown that there is a correlation between high NDF values in hay and colic in horses. This factor is more likely the source of digestive upset rather than a specific forage species. Overall hay quality in Georgia and a number of other states is often reported as a Relative Feed Quality (RFQ) number which takes into account both the total digestible nutrients (TDN) and dry matter intake (DMI). A RFQ value of 100-120 is sufficient for an idle horse or one in light work. Well fertilized bermudagrass hay harvested at the proper growth stage is capable of meeting this qualification.

The take home message is that many species of forage, including bermudagrass, can make acceptable hay for horses provided it is harvested at the proper stage of maturity and put up correctly. Higher quality forages are better for your horse not only because they provide better nutrition, but are important in maintaining the health of their digestive tract as well.



Many species of forage, including bermudagrass, make acceptable hay for horses provided they are fertilized, harvested at the proper stage of maturity, baled and stored properly.

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Seeded bermudagrass varieties may be sold as hulled or unhulled seed or a combination of both. Hulled seed have part of the seed coat removed to promote faster germination. Unhulled seed have the seed coats intact. Some of the seed will germinate quickly, while others may lay dormant for a period of time until conditions are more suitable for germination. In general, if a good seedbed has been prepared and seeding takes place in the normal planting period, hulled seed are preferred. If planting into less than ideal conditions, or somewhat outside of the normal planting window, unhulled seed or a combination of hulled and unhulled seed is probably better. Pennington's **Tierra Verde** seeded bermuda blend is specifically formulated to offer planting flexibility. Containing **Mohawk** and Sahara II improved forage bermudagrass varieties, this versatile blend contains 50% hulled and 50% unhulled seed, thus allowing a wide planting window from spring to early fall. With the combined traits of Mohawk and Sahara II, Tierra Verde provides a productive and durable bermudagrass blend for pastures, hayfields and landscape areas. It is also well suited for vegetative erosion control plantings.



Ask the Expert

Editors Note: The "Ask the Expert" column features answers to questions Pennington forage experts receive from clientele throughout the country. Pennington forage specialist Katie Harver answers this newsletter's featured questions about novel endophyte MaxQ tall fescue.



Katie Harver Business Development Mgr. Forage-Wildlife-Cover Crop AL, GA, KY, NC, SC, TN, VA khurder@penningtonseed.com

Will the novel endophyte in MaxQ tall fescue revert back to the old toxic endophyte over time?

No. The endophyte in MaxQ is a pure strain and can never become toxic. Fescue endophytes cannot be taken up from the soil by roots nor can they be transferred or hybridized by cross pollination.

Do I need to get rid of all the toxic fescue on my farm before planting MaxQ?

No. While it is not necessary to remove toxic fescue from the entire farm, it is strongly suggested to remove all toxic fescue from the area where MaxQ will be planted. The reason is two-fold. First, animals will not receive the full performance benefits of grazing the non-toxic MaxQ forage if a significant portion of their diet still consists of toxic fescue. Secondly, cattle will selectively graze the MaxQ over the toxic fescue resulting in overgrazing of the MaxQ and potentially shortening its stand life.

Will the toxic endophyte found in KY 31 tall fescue contaminate a neighboring field of MaxQ due to its close proximity?

No. The endophyte is contained within the plant and cannot be transmitted from plant to plant. It is only mobile through the seed. MaxQ pastures can become contaminated with toxic fescue

varieties if seed are introduced back into the pasture through mechanical movement (feeding toxic hay, piles of seed on mower decks, etc.). Because of this, Pennington forage experts discourage the feeding of toxic fescue hay in MaxQ paddocks and recommend cleaning any toxic fescue seed from farm machinery prior to its use in MaxQ pastures.

Can MaxQ be overseeded into thinning fescue stands?

Yes, MaxQ can be overseeded into KY 31 pastures similar to orchardgrass or winter annual grasses. MaxQ can be a better alternative to these grasses because it will persist much longer. However, it should be noted that using MaxQ to thicken toxic fescue only serves to dilute and not eliminate fescue toxicity. As such, cattle performance and MaxQ stand life could be significantly reduced compared to results obtained with pure stands of MaxQ.

Pennington Expands Cover Crop Emphasis...continued from page 2

Customized Blends Available

Are there soil types, production issues and/or environmental conditions unique to your farm requiring a specialized blend of cover crop plant species? Are certain cover crop mixtures only eligible for cost-share in your area? No problem! Pennington

can custom blend virtually any requested cover crop seed mixture in 25 or 50 lb. bags or in 2,000 lb. totes. With blending facilities in AL, GA, MO, NC, OH and VA, Field GuardTM mixes and custom blends will be available throughout the eastern U.S. from the Midwest to Maryland and southward from Florida to Texas. Simply contact the nearest Pennington dealer to obtain a price quote.

Enhanced Cover Crop Customer Support

Following a long Pennington tradition of providing outstanding product expertise and customer support, recent Clemson University graduate Jacob Barnes has joined the Pennington forage team as Business Development Manager for cover crops. With a major in Agricultural Education, a minor in Horticultural Science and a strong background in farming, Barnes will be working closely with university officials, various state and federal agricultural agencies and industry professionals to help keep

dealers and farmers abreast of the latest research and cover crop related news and information.

For more infomation on Pennington's Field Guard[™] cover crop line and how it can be used to help protect one of the farm's most valuable resources - the soil, visit **PenningtonCoverCrops.com** or call 1-844-SOIL 911.



Follow us at Pennington Seed Cover Crop Products

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it heavily, especially in late winter. Turkeys love to insect browse through it in the spring. It attracts lots of pollinators as well," relates Gilbert. "It has been helpful in keeping wildlife in the area during the transition time between cool and warm season annual plant-

When asked what keys to success he would recommend to other wildlife enthusiasts and landowners for establishing food plots,

1. Take soil samples. This is the equivalent of a "cheat sheet" in

"We established our first planting of 3 acres in September of 2013 and have expanded that to 12-14 acres now. Deer use

ings."

Walter offered the following:

school. Soil samples tell exactly what fertilizer is needed. Use the amounts needed, but don't over ap-

ply – especially nitrogen.

2. Use the local Extension office and other experts as

resources for information. Don't be afraid to ask ques-



Gilbert is using Durana perennial white clover in open food plot areas and thinned pine plantation lanes to enhance wildlife nutrition and to help bridge the gap between cool and warm season annual plantings.

tions.

- 3. Do it right. Match the number of acres devoted to food plots with your budget even if it means cutting acres.
- 4. Take time to prepare the soil properly prior to planting. For planting food plots on sandy soils, a \$1200 culti-packer may be more valuable than a \$60,000 tractor.
- 5. Follow seeding rates do not skimp on seed, but don't over-apply either. Know the size of your field/plot. Take time to calibrate the planter and to set it for the proper planting depth.
- 6. Don't plant seed in dry soil. Plant in adequate soil moisture or time planting when adequate rainfall is expected.
- 7. Vary planting dates to match deer rut dates for the area.
- 8. Install exclusion cages in each plot to monitor deer use and grazing pressure.

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Wildlife experts say that the late summer/early fall period is a time of high nutritional demand for deer. Containing a mixture of soybeans, iron clay peas, buckwheat, sunflower and sorghum, Pennington's Rackmaster Deluxe Spring/Summer Deer Mixture provides a nutrient-dense food source containing the high protein and energy deer need during the critical late summer and early autumn months. It is also ideal for late summer planting to provide a quickly established, rapidly growing food plot for early season bow hunting before frost.



Trophy Radishes.^{TT}



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Using stockpiled fescue for late fall and early winter grazing is a proven method to reduce beef cattle wintering costs. To stockpile tall fescue, forage experts recommend that old seed heads and low quality summer growth be removed by clipping or close grazing in mid-August to early September. This stimulates new forage growth that is high in nutrient content. Depending on the area and weather conditions, 40-80 lbs/acre of nitrogen should be applied in late August or early September to optimize fall growth of the fescue.

