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Horse Paddock Management

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Horse paddocks are not the same as cow pastures! The expectations and goals of management are different as well as available resources. Cattle operations are more bottom-line oriented, any cost must be offset by at least the cost of the input in an increase in return. Many horse operations are quality of life operations and are less subjected to financial restraints on management decisions.

The physiological make up of the horse make the horse more demanding on the grass. The horse has upper and lower incisor teeth while the cow has only lower incisors. This allows the horse to graze the grass much closer to the ground. The nature of the horse is to select the most-tender blades of grass and leave the older blades, there by creating overgrazing holes in the sod. The horse has a solid hoof while cattle have a split hoof. The horse's solid hoof causes more sod damage as it tends to dig divots especially when moving at greater than a slow walk. The horse's digestive system is some what unique; it is modified monogastrin, with an enlarged large intestine that is prone to collecting sand. When the horse get colic and rolls this extra weight in the intestinal loop can cause the gut to twist. Not a good situation. As the horse eats grass very close to the ground it picks up small amounts sand with the grass. If the grass is not well rooted as in young or new plants the horse will pull the plant up by the roots, the roots bring sand with them. This situation can be minimized by having either no grass in the paddock or by assuring a healthy solid sod.

Most of the literature from the University of Florida dealing with Florida forage production is written for cattle operations. The suggestions that I give you today may differ from those that Dr. Chambliss has given for this reason.

I'm asked frequently "what is the best grass for me to plant for my horses"? This is a difficult question to answer without having some very basic information! What is the background pH? What type of soil are you planting on? What levels of major elements are in your soil? Will you have irrigation available? How much pressure do you anticipate, stocking rate? What are your expectations of the grass? What resources do/will you have available? What is the salinity of the soil? What is the history of the ground that you want to plant? How many acres? After these questions are answered than an informed recommendation can be given.

If you are planting on land that has a background pH greater than 6, I would not recommend planting any of the Bahia grasses. Bahia grass grows good at pH levels of 5 to 6. If your soil has a background pH of >6 then you probably need to be thinking of planting one of the Bermuda grasses possibly inter-seeding with a legume (alfalfa, alyceclover, carpon desmdium, perennial peanut , or aeschynomene). Tifton-9 Bahia grass is the most productive variety at this time; it will produce about 30% higher yields than Pensacola. Generally we do not advise planting any of the seed able Bermuda grasses for pasture because they do not yield as good as the vegetative reproduce varies and they revert back to Common; however, in the situation of horse paddocks where yield is of lesser concern than the ability to maintain a healthy sod under high traffic seeded Bermuda grasses may be considered. There are other grasses that can be considered but these are what I believe to be the best suited for horse in Central Florida.

The second most common question I receive is “when should I plant”. This is dependent on all the same factors that were listed earlier when determining what should be planted. If irrigation is available seeded grass can be planted any time after the danger of frost has passed, March is a great time if you have the ability to irrigate when the dry time arrives. Remember that once the seed germinates if the weather turns dry without irrigation the seedlings will die; once they die they will not germinate again! If you are planting a grass that is sprigged you need to time the planting when the sprigging material is available, dug sprigs in early spring; If planting digit type grasses from top material you will need to wait until late spring or early summer for the proper material to be ready for planting. If no irrigation is available your chances for success will be much better if you wait for the summer rainy season to arrive (some people mark it by the 4th of July).

Proper land preparation is also an important consideration. If you are planting in a field that has lots of weeds it would be wise to disc the ground several times before planting. Each time the weeds germinate disc the ground again, this will reduce the weed competition in the new planting. Liming, if needed, should be done several months before planting in order to give the liming material time to work.

Seeding rate under the horse paddock scenario is another area that I believe needs to be analyzed. Most of the time my “horse people” already have too many horses for the forage they have available and therefore are more interested in getting the stand of grass as fast as possible than they are in the cost. The University of Florida recommends a seeding rate for Bahia grass pastures of 12 to 15 pounds per acre but adds that one can go up to 40 pound for quicker establishment. If you look at the recommendation for turf grass the University of Florida recommends 430 pounds of seed per acre! The seed should be covered with ½ inch of soil and rolled to pack the soil. As soon as the seedlings emerge fertilize with 30 pounds of nitrogen per acre, all the P and ½ the K that your soil test indicated that you needed. After 30 days, apply an additional 70 pounds of nitrogen per acre and the ½ of the required K. If you do not have a soil test apply 30 pounds of nitrogen when seedlings emerge along with 25 pounds of P and 25 pounds of K, after 30 days apply an additional 70 pounds of nitrogen and 25 pounds of K per acre.

Weed competition is important to control while establishing grass. Young Bahia grass is very sensitive to herbicides until it reaches a height of 6 inches, therefore weed control should be accomplished with high speed rotary iron (mowing) until the seedlings have reached 6 inches. Do not graze new stands until bare ground can no longer be seen!! Some people plant millet with the Bahia grass seed for a “nurse crop”. I do not recommend this because the millet will compete with the seedling Bahia grass thus prolonging the establishment time.

Feeding and caring for your grass is just as important as feeding and caring for your horse. Recommendations of from 50 to 160 pound of Nitrogen per acre per year depending on the level of productivity you desire. Once the grass is established no additional P is required for nitrogen levels <50 pounds per acre, for higher Nitrogen fertilization levels a soil test recommendation should be gotten. If no soil tests are available a 4-1-2 ratio can be used (4N-1P-2K). The fertilizer should be divided into several applications (up to one application per month). This will keep the quality of the grass at a higher level and reduce possible pollution.

Over seeding Bahia grass with ryegrass in October or November can give you added forage in the winter months. Graze the grass as close as possible and or mow the grass short before seeding. You can spread ryegrass seed over the top of the Bahia grass without disturbing the sod but it will require more seed and nitrogen than if you have a clean bed but it will provide the horse with some very good forage when the Bahia grass is not producing. Fertilization of ryegrass requires a complete fertilizer at germination plus a top dressing of nitrogen every 30 days to optimize production.

Bermuda grass, if seeded variety, should also be covered by ¼ to ½ inch of soil. The establishment fertilizer for seeded or sprigged Bermuda grass is the same as that for Bahia grass establishment. Once Bermuda grass is established production level higher than that of Bahia grass can be achieved but the nitrogen requirement is much higher.