Horse Pasture Management

Buy Horse Pasture Grass Seed

Horse Pasture Management

Horses graze differently that cattle and the way horses graze is the reason that you have poor pastures. Cattle graze uniformly over a pasture and they will graze right up to their droppings, cattle do not have upper teeth in the front so they can only snip off grass that is two inches tall (they cannot bight off grass). In most cases cattle pastures have plenty of grass if managed properly. Horses on the other hand, do have upper teeth and are able to bite grass off at the ground. Horses will not graze near their droppings therefore they will not graze uniformly. This means that horses tend to graze the same areas until the grass is gone. We refer to this style of grazing as "island grazing"

First lets try to understand why horses island graze. Horses prefer tender lush grass which has been kept very short and will ignore taller growing grass nearby. Horses deposit their droppings almost without exception in the taller grass which then compounds the problem because horses will not graze close to their droppings regardless how attractive or lush the grass may appear. Therefore, horses restrict their grazing to these same areas day after day. Island grazing will lead to dead areas in your pasture because grass, like all plants, must manufacture chlorophyll from the sunlight absorbed through their leaves in order to grow roots and survive. When horses continue to bite off the grass (leaves) continuously day after day, soon the grass plant cannot absorb sunlight, manufacture chlorophyll, and will simply starve to death. With this island grazing, throw in all the potential environmental problems such as drought, heat and hoof compaction. When this island dies the horses move on to another island and the process continues over and over until you have all these dead areas in your pasture.

What can I do to have a beautiful horse pasture? Well, there are some management practices that can help. First you must repair the dead spots, (islands) or replant the pasture. To effectively repair or re-establish a pasture you must shut the horses off the area for two to three months, or until the grass is three or four inches in height. We have other pamphlets covering planting and establishing grass for pastures, so I will not discuss planting and establishment of grass in this pamphlet.

After you have successfully repaired your pasture you need to adopt a few management practices to help keep your pastures lush and green.

1. Adopt a good fertilization program of at least four applications of fertilizer per year. See your local county extension agent for fertilizer and liming recommendations, but remember to fertilize in March, June, August, and October.

2. Rotate your horses between pastures if possible allowing your grass to rest and recover. If you cant rotate your pastures then stable your horses during. the day and pasture them only at night. Depending on the size of your pasture, you may be able to erect temporary fences, such as electric fencing, to rest a area of you pasture.

3. Mow or drag your pastures or lots every month during the spring and summer. This will help spread the horse droppings and crop the grass to a more uniform height. This is very important in discouraging island grazing.

4. Avoid pasturing more than one horse per acre. If this is not possible then rotate pastures more often and stable horses more hours of the day.

5. Provide horses ample access to shaded areas. If shade is limited then expect grass to die in the limited shaded areas. If you cant provide sufficient shade, then stable the horses during the hot part of the day and turn them out to pasture only late afternoon and night. 6. Provide more than one source of water in your pastures. This will help prevent horses congregating in the same area several times a day for as drink of water and killing the surrounding grass.

7. If you do not have pasture irrigation then you must restrict your horses time on pastures during extended periods of dry weather.

These recommendations should help you maintain a good looking pasture for your horses and your mental health. Remember the key is fertilization, rotation, fertilization, rotation, fertilization.

SUMMER GRAZING HORSES OR CATTLE

Hybrid Pearl Millet is a tremendous summer grazer for horses and cattle. This annual summer grazer supplements your permanent pasture grass with amazing amounts of forage. 16-18 % digestible protein and is very tender and palatable to both horses or cattle.

Hybrid Pearl Millet may be used as a stand alone summer grazer or it can be used as a supplement grazer and nurse grass when trying to establish an permanent pasture.

Stand Alone Summer Grazer

Plant 25 pounds seed per acre with 300 pounds 16-4-8 fertilizer , cover lightly, animals may begin grazing when Millet is 6 to 8 inches tall - usually three weeks after planting.

Nurse Grass with a permanent grass such as Pensacola, Tifton-9, TifQuik, or Argentine

Plant 15 pounds seed per acre with 300 pounds 16-4-8 fertilizer, 40-50 pounds of Bahiagrass, cover lightly. Animals may begin grazing when Millet is 6 to 8 inches tall usually three weeks after planting.

Over seeding existing pastures

You must lightly harrow your pasture.Plant 20 pounds seed per acre with 300 pounds 16-4-8. Drag something over the pasture to help cover seed. Animals may begin grazing when Millet is 6 to 8 inches tall.

During dry spells or if animals graze Millet very close to the ground, you will need to remove animals for a while to let the Millet recover. This is usually not a problem in June, July or August.

Another application of 300 pounds of fertilizer in late July, will increase Millet's growing season until late September.

Pastures and Forage Crops for Horses C. G. Chambliss, E. L. Johnson and I. V. Ezenwa

Florida has an estimated 500,000 horses, third only to Texas and California as one of the leading horse states in the U.S. The predominant breed of horse in the Florida is the American Quarter horse, which is closely tied to the state's agricultural industry. Horses have traditionally been used for herding cattle, but recent increases in horse population in Florida is mostly attributable to increasing popularity of pleasure horses, including miniature-type breeds, that are used for showing and recreation. Horse operations vary in terms of number of horses, from 1-3 horses to large commercial operations that breed, train or stable horses. Large-scale horse operations are presently concentrated in the central (with Marion County as the nucleus) and the southeastern regions (Palm Beach/Broward/Dade Counties) of Florida.

Florida, pastures and forage crops provide a major part of the nutritional needs of horses almost year-round. Planning for pastures or forage crops utilized as horse pasture should consider peculiarities of the digestive system of the horse. Being herbivores, horses can utilize roughages, and are therefore able to utilize that same pastures as cattle. However, the horse is not a ruminant. It has a simpler, less robust stomach that is more sensitive to what it grazes than in the case of cattle. Horses lack the rumen, the large vat where cattle and other ruminants ferment and degrade poor quality, high fiber, cellulosic materials through the action of microorganisms. Horses instead have an adapted and enlarged colon where the fermentative process occurs. Thus, horses, because of the location of the colon, are hindgut digesters. Horses, therefore, require higher quality, less fibrous forages that are free of mold and dust than cattle.

A pasture serves several purposes for the horse; it is both an area for exercise and a source of high quality forage. A high quality pasture and/or hay can provide a balanced ration of energy, protein, minerals, and vitamins that a horse needs. However, even on a good quality pasture or hay, free-choice vitamin/mineral mix and water are needed to adequately meet the horses daily nutrient requirements. Horses consume about 1-2 percent of their body weight per day. Thus, an average quarter horse weighing 1000 lbs would require a minimum of 10 to 20 lbs of dry forage or hay per day. Even on fine-stemmed, leafy, high quality pastures that are the target for horse pastures, care should be taken to ensure that the horses consume adequate amounts of fiber, which they require for normal gastrointestinal function. The fiber content of a good horse hay should contain 30-40% acid detergent fiber (ADF) and 50-65% neutral detergent fiber (NDF) in order to provide for normal gastrointestinal function. On lush pasture, supplementary hay may be required to ensure adequate intake of fiber.

Pastures can be grown in nearly all locations in Florida. Variations in soil and climatic conditions make some locations and sites better suited to forage production than others. Also, a particular forage species may be better adapted to a given site than other species. Typically, perennial warm-season forage grasses are more productive in the summer and early fall (June-October), and forage may be in excess of the needs of the horses. Excess forage may be harvested as silage or hay as weather permits. role of improved pastures in supplying forage varies from farm to farm, depending on the type of livestock operation, available facilities, quality of these facilities, and personal preference of the operator. It is possible for animals to receive a large portion of their feed from pastures; however, if this is to be achieved, careful consideration must be given to planning and carrying out a forage production and utilization program. factors that must be considered in improved pasture production are: site to be used, forage varieties, liming and fertilization, and grazing management.

SITE When choosing a site for a horse pasture, due consideration should be given to the functions that the site provides: space for exercise, feed source, and a source of water, nutrients, and other requirements that the pasture plants require to grow. Successful establishment of a horse pasture, its subsequent management and productivity, will depend on the suitability of the site for the forage plant that is grown on the site. There may be more than one soil type on a given site and the characteristics of specific locations on the site may be determined by previous cropping history, topography, and other factors. The soils on any given site can vary in their ability to support improved productive pastures. Therefore, soil characteristics on a given site should be considered. In general, soils with a high organic matter content or clay content will have a higher fertilizer retention capacity and require fewer applications of fertilizer. Soil moisture holding capacity can vary depending on organic matter content, texture, depth to subsoil, and depth to water table. Deep sandy soils (e.g.

sandhills) that are excessively well drained and low in organic matter will tend to be more droughty and forage productivity will be less than other soils. Soil pH is a measure of soil acidity. The native soil fertility and need for soil amendment vary from one soil to the next. Soils with a low pH (less than 5.0) may need to be limed in order to support the growth of improved forages.

Soil nutrient levels should be checked when starting a new pasture program. Soil samples can be tested and subsequent fertilization recommendations can be provided by the Extension Soil Testing Lab of the University of Florida. If the soil is deficient in certain nutrients required for plant growth, these can be supplied by the addition of fertilizer that contains the needed nutrients. But nothing practical can be done about the "natural" moisture-holding capability of the soil or its "fertilizer retention capacity." In Florida, the predominant soil types in areas where horse pastures are concentrated are flatwoods and upland sands.

In general, the flatwoods sites have a higher water table, higher organic matter content, and thus better soil moisture holding capacity than the upland sands; therefore, they are generally more productive. Soils on upland sites that contain some clay or silt are generally more productive than those that are nearly pure sand. To make the best use of a site, specific areas of the site should be used for growing forage crops that are best adapted to the conditions in those sites. Forage plants that are productive on well-drained soils such as bermudagrass and rhizoma peanut will be grown on such sites. Poorly drained areas or low-lying areas that are flooded for extended periods during the summer may be used for forage crops that are suited or adapted to such conditions such as bahiagrass or limpograss.

LAND AREA REQUIRED (STOCKING RATE) Related to site for a horse pasture is the amount of land or acreage that will be required for each horse. The stocking rate or number of horses on each unit or acre of pasture will vary with pasture species grown and its productivity, size and age of the horse, and amount of grain and other supplements fed, and grazing management. On productive sites, pasture productivity is higher and thus, less acreage is needed for each horse. The capacity of a pasture to supply ample forage varies throughout the year. Warm-season perennial grasses (bahiagrass, bermudagrass, etc) are more productive during the summer. Amount of forage produced during the spring and fall vary among the warm-season grasses. In general, the more supplementary feed is provided to the horse, the less the amount of forage the horse consumes, and the more the number of horses that can be supported by the pasture.

In the summer, forage yield and quality of warm-season perennial grasses may be adequate to meet the requirements of a mature horse. In the winter, forage yield and quality on the pasture will be inadequate and supplemental feeds will be needed to adequately meet the horses nutrient needs. Where it is possible to vary the number of animals on a pasture, more horses may be stocked on a unit area of pasture in the summer and less in the winter. Typically on less productive sites one mature horse weighing 1,100 pounds may require 2 to 2 ½ acres of pasture whereas on productive sites and well-managed pasture, 1 to 1 ½ acres will be adequate. The number of horses in a pasture may be increased if more supplementary feed is provided or horses are rotationally grazed. In rotational grazing, animals are moved around pastures or stabled every 14 to 21 days to allow grazed pastures to regrow or recover before further grazing. The aim of grazing management is to efficiently utilize the pasture and avoid overgrazing which may lead to development of bare spots in the pasture as forage plants are weakened and unable to recover from grazing. In general, when there is more than one horse per acre, use as an exercise area becomes the primary role of the pasture and source of feed becomes secondary. Avoid placing too many horses on too few acres for prolonged periods of time - this practice results in destruction of the pasture and encroachment of weeds.

VARIETIES Characteristics that should be considered when choosing species and varieties (cultivars):

1.) Adaptation to soils and climate.

2.) Growth cycle.

3.) How the forage will be used (grazed or hay)

4.) The class of horse (breeding stallion, mare, growing horse)

5.) Season when forage is needed (wet or dry season; warm or cool season)

6.) Level of management required for optimum pasture production versus the skill of the manager.

Detailed discussion of production and management of forage crops mentioned below are available in the Florida Forage Handbook (Table of contents: http://edis.ifas.ufl.edu/AG170).

Warm-season Perennial Grasses Bahiagrass is an ideal general-use pasture grass. Once established it can stand heavier grazing pressure than the other pasture grasses in common use. Therefore, horses are less able to destroy a stand of bahiagrass when pastures are overstocked and grass production is inadequate to meet their needs. Bahiagrass produces more forage in the summer than winter, and its quality is often low during July, August, and September. When mature, all of the bahiagrasses are extremely fibrous and low in feeding value, but the quality of the pastures can be improved by overseeding some of the pastures with summer legumes such as alyceclover.

Recommended cultivars include Pensacola, Argentine, Tifton-9 Pensacola, and Paraguay 22. Pensacola is the most widely grown cultivar of bahiagrass. It is persistent under close grazing and low input management. Tifton-9 Pensacola produces more top growth than other cultivars but may be less tolerant of overgrazing. Both Tifton-9 Pensacola and Pensacola are more frost resistant than Argentine or Paraguay 22. Argentine and Paraguay 22 have wider leaves than the two Pensacola cultivars. Argentine can develop the ergot disease on the seed, which can cause ergot alkaloid toxicity that can lead to abortion in horses.

Improved hybrid bermudagrass covers rapidly from vegetative plantings and is vigorous and highly productive. Like digitgrass it is both more responsive to fertilization and has higher requirements for its growth than bahiagrass. It makes an excellent hay crop when harvested frequently (every 4 to 5 weeks). Bermudagrasses require careful management and can be severely damaged by continuous overgrazing. They should not be planted on sites that flood or have very poor drainage.

Recommended cultivars include Coastal, Suwannee, Coastcross-1, Callie, Tifton-44, Florakirk, and Tifton 85. Tifton 85 is a new variety that is vigorous, high yielding, and has improved digestibility. Florakirk is recommended for hay production. Current data indicate that Alicia, an older but popular variety, is less digestible and less productive than Tifton 85. All of the improved hybrid bermudagrasses must be established from vegetative planting material. Common bermudagrass can be established by planting seed, but the common types are usually of low quality, more susceptible to leaf diseases and are not particularly well suited for use in Florida.

The stargrasses are related to the bermudagrasses and are adapted only to south-central Florida. Three cultivars - Ona, Florona, and Florico are recommended. These grasses are very productive when grown under high fertility. It should be noted that the potential for prussic acid poisoning does exist with stargrasses. The stargrasses make excellent hay but many horse owners would prefer the finer-stemmed bermudagrass hays.

Other warm-season perennial grasses include the following:

- St. Augustine requires a high fertility level and is a top producer on organic soils in the Everglades. Chinch bug is a serious pest on sandy soils.

- Limpograss (Hemarthria altissima) is adapted to the wetter flatwood sites. Floralta is the recommended cultivar, but no horse performance information is currently available.

• Callide Rhodesgrass is adapted to southern Florida. Callide are adapted to periodic flooding common during the summer months on flatwoods soils in south Florida, and provide better grazing during the cool season than bahiagrass. Callide are known to contain less oxalates than most other grasses and are therefore suitable for horse grazing. Callide requires higher levels of fertilization and more careful controlled grazing with horses than bahiagrass, but it produces better forage quality than bahiagrass and should tolerate controlled grazing by horses.

- Suerte is a relatively new grass that is established by seed. It can be grown on wet sites, but has very little cool season growth and is not frost tolerant. It may tolerate light grazing by horses but should not be used as a general horse pasture.

Warm-season perennial grasses that are not recommended (because of their low production or low quality) but may invade a horse pasture are common bermudagrass, centipedegrass, carpetgrass, and torpedograss. Common bermudagrass, if highly fertilized, can be quite productive. It will often provide ground cover in high traffic areas where other grasses will not. Centipedegrass is adapted to areas with good drainage, and carpetgrass and torpedograss that are adapted to moist flatwoods sites have low productivity. These grasses tolerate close grazing and may invade more productive grasses when pastures are overstocked.
Summer Annual Grasses Pearl millet is useful as a supplement to perennial summer grasses. Pearl millet may be overseeded in perennial pasture. It is highly productive under adequate fertility. It will not tolerate flooding.

Sorghum and sorghum-sudangrass hybrids CANNOT be recommended for horse pastures because of prussic acid poisoning, which may cause abortion in mares in early pregnancy and problems with the urinary tract.

Winter Annual Grasses Cool season annual grasses are an excellent choice for extending grazing from the late fall through the early summer. Small grains including oats, rye, and wheat all furnish good grazing during December, January, February, and March if planted in October.-November. They will not tolerate flooding and cost of land preparation, planting, and fertilization is high. Ryegrass has less seedling vigor than the small grains but can be a valuable winter forage crop. It has a high moisture requirement and responds to liberal fertilization. It can be planted alone or in mixture with small grains and/or various cool season legumes. Cool-season annual grasses can be used to overseed perennial grasses or sown on dedicated land. They produce palatable and nutritious horse pastures.
Summer Legumes Rhizoma peanut is an excellent forage for horses, and because the feed value is similar to that of alfalfa, it is sometimes used as a substitute for alfalfa. Rhizoma peanut is a persistent perennial rhizomatous legume adapted to well-drained soils over the entire state. Rhizoma peanut may be grazed or cut for silage. Florigraze is the recommended cultivar, and it is propagated from rhizome sections. This crop is slow to establish and often requires two seasons to develop complete ground cover. The perennial peanut is best established in a clean seed bed and any perennial grass to be mixed with it should be planted later. Forage quality of summer pasture is increased by the addition of Florigraze (See EDIS publication SS-AGR-35 Perennial Peanut Establishment Guide http://edis.ifas.ufl.edu/AA183).

Alyceclover is a high-quality annual legume that is readily accepted by both grazing cattle and horses. Seedlings can be made from March through June at a rate of 15 lb/A. Alyceclover types currently available are susceptible to attack by root knot nematodes. It should not be planted on soils subject to long periods of flooding. It is an excellent hay crop and is frequently planted following watermelons to take advantage of the residual fertility.

Winter Legumes Clovers make excellent winter pastures for horses especially when mixed with the small grains or ryegrass for overseeding bermudagrass and bahiagrass sods. A mixture of clover is usually recommended. White and red are better adapted to the wetter sites, while crimson and arrowleaf are better adapted to the well-drained locations. For other information, see EDIS publication SS-AGR-49 Winter Forage Legume Guide (http://edis.ifas.ufl.edu/DS127) .

Alfalfa is forage of choice for many horse owners. Alfalfa is typically fed to horses as hay or in mixture with a grass such as timothy; most of Florida's alfalfa hays are shipped in from the Midwest or West. Alfalfa has met with good success by some growers in recent years on moderate- to well-drained sites. It requires intensive management, including high levels of fertility and favorable moisture conditions. Excellent hay can be made from this plant, but high humidity in Florida makes drying difficult.

PASTURE MANAGEMENT A good level of pasture management can ensure that the pasture is main source of feed for horses and less supplementary feed is required during most of the year. This would require adequate planning and making the right decisions in terms of matching forage plants to suitable areas of the site, use of complementary forage species to supply forages at different times of the year, and proper management of the pastures. A combination of forage plants will more adequately meet the forage needs of horses on pastures than reliance on one forage plant. Typically, a perennial forage species such as bahiagrass, bermudagrass or stargrass (south Florida) may serve as the base pasture to supply most of the forage needs on pasture during the summer. Some warm-season perennial grasses such as stargrasses may be productive, especially when adequately fertilized, in the spring when the grass starts to grow. Depending on the need of the operation during the summer - for more yield or higher quality - summer annual grasses (e.g. millet) and legumes (e.g. Alyceclover) may be grown to meet the needs. During the cool seasons of late fall, winter and early spring, cool season forages such as ryegrass and clovers may be used to meet forage needs. When overseeded, base pastures will require fertilization in the fall and spring.
Establishing Pastures Before land preparation begins, soil samples should be taken from the site and tested. Soil testing should be conducted to determine the fertilization and liming program. Most native Florida soils will require lime for optimum production. Land preparation determines the overall success of pasture establishment. A clean, tilled, weed-free seedbed is essential for all perennial crops. Start land clearing and preparation in early spring or during the dry period. By frequent tillage the vegetation is exposed to the scorching heat of the sun and killed by desiccation. It may be necessary to kill existing vegetation with herbicide before land preparation begins.

Forage crops may be established by seed or vegetative materials. Type of planting material needed, recommended planting rate, planting dates and time-to-graze information for each forage crop is given in Table 1 . Winter and summer annual forage grasses and legumes can be overseeded on sods by either broadcast or sod drilling, or they can be seeded into prepared seedbeds. When overseeding, the sod should be grazed very heavily, mowed, or burned to remove the top growth. The small grains (rye, wheat, oats, and triticale) may perform poorly when overseeded on a bahiagrass sod unless the sod has been disturbed by disking or chopping. Bahiagrass should be cultivated (disked) to obtain 30 to 50% disturbance in order to provide good seed-to-soil contact and reduce the competition from the bahiagrass. More information on pasture establishment may be obtained from EDIS publication SS-AGR-161 Forage Planting and Establishment Methods (http://edis.ifas.ufl.edu/AG107).

Maintaining Pastures Routine soil testing will aid the development of an efficient liming and fertilization program, which in turn is necessary for maintaining productive pastures. Soil pH will change over time depending on soil type and type of nitrogen fertilizer used in supplying annual nitrogen needs of the pasture. Lime or dolomitic lime (supplying calcium and calcium and magnesium, respectively) may be required to increase soil pH to within 5.5 and 6.5 where nutrients are most available. Nitrogen, phosphorus, and potassium are the three major nutrients required for the growing grass. Where there is a good stand of a legume in the pasture, inorganic nitrogen application may not be required because legumes are able to utilize nitrogen from the air (nitrogen fixation) and make it available to the companion grass (nitrogen transfer). Besides, inorganic nitrogen fertilizers may adversely affect legume stand persistence. Under grazing, nutrients are recycled back to the pasture through manure and urine, and thus additional nutrient application with fertilizer may be less than what is needed for a hay crop or where the pasture is harvested and removed from the land. More information on liming and fertilizing pasture is available in EDIS publication SS-AGR-176 Fertilizing and Liming Forage Crops (http://edis.ifas.ufl.edu/AG179). Proper land preparation during pasture establishment will go a long way in minimizing weed infestation in the pastures. Adequate weed control can be accomplished through a combination of grazing

management, herbicide applications, and mowing. See EDIS publication SS-AGR-08 Weed Management in Pastures and Rangeland (http://edis.ifas.ufl.edu/WG006) for more information on herbicide recommendations for pastures.

As indicated above, significant amounts of nutrients are recycled through the manure of grazing animals. However, since the manure is not well distributed on the pasture, manure should be spread with a light drag. Do this during hot, dry weather. Internal parasites will be killed by the hot sun. Mowing areas where horses do not graze and dragging pastures to spread manure piles will improve the quality and the utilization of the pasture.pests of pastures are not usually severe enough to justify insecticide application, but occasional outbreaks can be controlled with chemicals. Judicious use of chemicals involves carefully reading the labels and following directions for use. Some chemicals may be injurious to the horse, and some may require that the horse does not graze the pasture for specified periods after applications. Please read and follow instructions provided on insecticide labels.

Grazing management is a valuable tool for maintaining pastures. Pasture may be continuously stocked or grazed or rotationally stocked or grazed. In continuous grazing, horses graze the same pasture for the entire grazing season or year. In rotational grazing, the pasture is divided into paddocks that are rotationally grazed in sequential order. Rotational grazing is a valuable management practice for maintaining and efficiently utilizing productive pastures. Available pasture may be subdivided into 2 to 10 paddocks, which can be grazed in sequential order. Horses graze a paddock for 7 to 21 days and are moved to another paddock. This allows the forage plants to recover in a given pasture while another pasture is being grazed and helps prevent overgrazing and the resultant bare spots or "sand spots." The length of time between grazing depends type of pasture, site conditions, season of the year and how quickly the plants are growing. Dividing pastures also afford the manager some flexibility in pasture management. Subdivision of the pasture may be based on soil types or some other characteristics of the sites so that different paddocks may be managed in different ways to ensure uniformity of forage availability. Some paddocks may require supplemental fertilizer application, mowing to control weeds, or promote uniform regrowth. During periods of excessive forage growth in the summer, some paddocks may be closed and used for stockpiling forage for latter use during periods of limited forage availability, further reducing the need for supplemental feeds. Depending on type of forage plant, weather conditions, and management considerations, some paddocks may be cut for hay or silage during these times.fencing is essential for success in rotation grazing and pasture management.

Proper fencing also makes the pasture safer. To improve safety on the pasture, fill in holes in the pasture, remove sharp objects, stumps, loose wires, and other materials that may injure the horse.

HaysAmong supplementary feeds that may be required to augment forage from the pasture, hay is the most important. Being a herbivore, hays are a very important component of horse diets and are indeed a primary source of fiber that is needed for normal gastrointestinal function. Good quality horse hay should be mold- and dust-free, and should not contain extraneous materials such as weeds and poisonous plants. Good quality horse hay contains about 12 to 20% crude protein, with grass hays at the lower end of the range and legume and annual forage hays at the upper end. Poor quality grass hay may contain 6% crude protein or less. Many horse owners commonly use color of hay as the determinant of hay quality, but color should not be the only indicator of hay quality. A forage analysis report that indicates percent content of moisture, crude protein, acid detergent fiber (ADF) and/or neutral detergent fiber (NDF), calcium, and phosphorus provide objective criteria for judging hay quality. Forage analysis is also useful for ration formulation and supplementary feeding decision. Please consult your local extension office for assistance with hay sampling and analysis.

Production of good quality hay involves a combination of proper management practices, including fertilization and cutting frequency. In Florida, climatic conditions restrict hay making mostly to the spring and fall when there is adequate soil moisture to permit forage crop growth and the weather favors rapid drying of the cut herbage. Hay fields will be grazed during the summer months when it is not usually possible to make hays because of excessive rains. Some forage crops make better hays than others do. Therefore, production of hay from horse pastures may be a consideration in the planning, choice, and establishment of horse pastures, and subsequent subdivision of pasture and allocation of paddocks, if the pastures will be cut for hay. The bermudagrasses (Coastal, Florakirk, Tifton 85, and "Jiggs") and stargrasses (Florona) make better hay than bahiagrass. For more information on hay making, see EDIS publication SS-AGR-70 Hay Production in Florida (http://edis.ifas.ufl.edu/AA251).

Tables Table 1. Planting guide for forages.

Crop	Planting rate (lb/A)	Planting material	Planting date**	Months from planting to grazing
Grasses				
Bahia	15 - 20	seed	Feb 15 - Aug 15	3 - 12

Bermuda

1200

sprigs or green tops

Jan 15 - Aug 15

3 - 12

Star

1200

green tops

Jun 1 - Aug 15

3 - 12

Ryegrass

20 - 30

seed

Oct 1 - Nov 15

1 - 2

Pearlmillet

24 - 30

seed

Mar 15 - Jun 30

1 - 2

Small Grains

Rye

84 - 112

seed

Oct 15 - Nov 15

1 - 2

Wheat

90 - 120

seed

Oct 15 - Nov 15

1 - 2

Oats

96 - 128

seed

Sep 15 - Nov 15

1 - 2

Triticale

84 - 112

seed

Oct 15 - Nov 15

1 - 2

Legumes

Rhizoma Peanut

80 bu.

rhizomes

Jan 15 - Mar 15

8 -15

Alfalfa

12 - 20

seed

Oct 1 - Nov 15

4 - 7

Alyceclover

12 - 15

seed

Apr 15 - Jun 30

2

Crimson

20 - 26*

seed

Oct 1 - Nov 15

2 - 3

Red

12 - 15*

seed

Oct 1 - Nov 15

3 - 4

Arrowleaf

8 - 10

seed

Oct 1 - Nov 15

3 - 4

White

3 - 4

seed

Oct 1 - Nov 15

3 - 4

* Assumes broadcast planting on bahiagrass or other perennial grass sod. Solid stands drilled into a prepared seedbed can be seeded at lower rates. Seeding rates would be reduced approximately 20% for each component if a mixture were used.

** For fall planted cool season annuals, producers in North Florida may begin planting in the early part of the planting date range. Producers in South Florida should wait and plant in the latter 1/2 to 1/3 of the planting date range.

Courtesy of http://turf.ufl.edu/