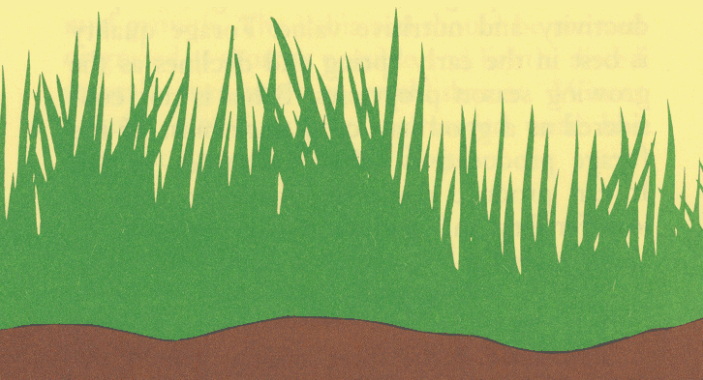


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# BAHIA GRASS



COOPERATIVE EXTENSION SERVICE  
UNIVERSITY OF GEORGIA  
COLLEGE OF AGRICULTURE/ATHENS

## BAHIAGRASS

Bahiagrass is a native of South America and was first introduced in the United States in Florida in 1913. Several later introductions were made, and in the late 1950's and early 1960's hybrid hahiagrasses were released.

Bahiagrasses are adapted to a wide range of soil types in the Coastal Plain region. They are more productive on sandy soils with a pH of 5.5 to 6.5. Bahia generally grows better than the hybrid bermudagrasses, such as Coastal, on wetter type soils with relatively low fertility. Pensacola hahiagrass is more shade tolerant than Coastal and thus better adapted to woodland pastures.

Bahiagrass is a deep-rooted, warm-season perennial grass that spreads by short, stout stolons and seeds. Seed heads are two- or three-fingered and may grow 10 to 36 inches tall depending on the variety.

Grazing studies indicate that hahia ranks between carpetgrass and bermudagrass in productivity and nutritive value. Forage quality is best in the early spring and declines as the growing season progresses. Bahia is not considered as a good hay crop since most of the forage produced is below cutter-bar height. It can produce moderate yields on soils of low fertility and withstand close grazing.

## VARIETIES

*Pensacola* is the most widely grown variety. It has long, narrow leaves and taller seedheads than most other bahias. It is more winter-hardy than common, Argentine or Paraguay types, but top growth is killed by moderate frosts.

*Argentine* has long, broad leaves and is more palatable than Pensacola. It does not make early growth in the spring, but it does

continue to grow in late summer and early fall. Argentine is very susceptible to ergot which seriously damages the seed and can cause toxic effects in cattle.

*Paraguay* (Texas bahia) has short, narrow leaves. It is a tough, low-yielding bahia with little value as a forage plant but is used to some extent as a general purpose turfgrass.

*Paraguay 22* is quite similar to Argentine bahia in appearance, growth habit and cold tolerance, but it is not susceptible to ergot and is more productive than Paraguay.

*Common bahiagrass* has short, broad leaves. It has oval-shaped seed with a tight waxy glume which makes scarification necessary for good germination. Forage yields are lower than those of other bahias. It is the least cold tolerant of all the hahiagrasses.

*Wilmington* has medium size, narrow leaves. It is less productive than Pensacola and Paraguay, but is the most cold tolerant of all of the hahiagrasses.

*Tifbi-1* and *Tifbi-2* are hybrid bahias developed at the Coastal Plain Experiment Station. They are leafy, have more shatter-resistant seed and can produce more forage and beef per acre than Pensacola. *Tifbi-2* produces slightly more forage than *Tifbi-1*. Hybrid seed of both are produced from fields vegetatively interplanted to two parent clones that are self-sterile but cross fertile. Due to difficulty in producing seed, these hybrids have not been grown to any extent.

## ESTABLISHMENT

Bahiagrass should be seeded on a well prepared seedbed. Early spring planting dates are recommended on upland soils and late spring for low, moist soils. Fall planting may be made in extreme south Georgia.

Bahiagrass seed germinate over a rather

long period. Generally 50 to 60 percent of the seed germinate within 30 days. Seed scarification is required for common bahiagrass, but it is usually not necessary for the other bahiagrass varieties. Bahia should be seeded at the rate of 10 to 15 pounds per acre and planted  $\frac{1}{4}$  to  $\frac{1}{2}$  inch deep. The use of a cultipacker with seeding attachment is a good method of planting. It gives a firm, smooth seedbed, conserves moisture and usually gives all the coverage necessary. A grain drill with a grass seed attachment gives good results provided care is taken to avoid covering the seed too deep.

Bahiagrass forage production is best when the soil pH is maintained in the 5.5 to 6.5 range. Fertilizers should be applied at planting according to soil test recommendations. New plantings should receive approximately 30 pounds of nitrogen and 40 to 60 pounds each of  $P_2O_5$  and  $K_2O$  per acre 6 to 8 weeks after planting or as soon as the stolons begin to spread.

It is desirable to seed heavily enough to insure a good sod as quickly as possible. A thin sod encourages weed competition. If weeds are present at the time of establishment, they should be controlled (see Circular 601 "Weed Control in Forage Crops").

Cattle should not be allowed to graze new plantings of bahia in the spring months. Heavy trampling may result in destruction of the young plants. Grazing after June is beneficial in that it helps control crabgrass and pursley during the year of establishment. Once established, bahiagrass can suppress most weeds and only one or two mowings per year is all that is necessary.

## MANAGEMENT

Lime and fertilizers should be applied to established hahiagrass pastures according to

soil test recommendations. Established pastures should receive annual applications of 100 to 200 pounds of nitrogen per acre. Nitrogen fertilizer should be applied in two or three applications during the growing season.

Bahiagrass pastures should be grazed close for best forage and beef production. Approximately 60% of the total forage produced is within two inches of the soil surface. Bahiagrass is generally not a good hay crop, since only 20 to 25 percent of the total forage is recovered as hay.

The dense, compact sod of bahiagrass is generally not considered as good for overseeding small grains, ryegrass or clovers as the bermudagrass sods. Winter annual grasses and legumes, overseeded on bahia, will add to grazing quality and provide additional grazing in the winter and early spring. Overseedings with winter annuals such as rye, oats, ryegrass, crimson and arrowleaf clovers can be successful provided the soil pH and fertility level of the soil are favorable for winter annual growth. The bahia sod should be mowed or grazed as short as possible and lightly disced several times prior to establishment. Winter annuals should not be overseeded until late fall, just prior to the first frost.

#### Yield of Pensacola Bahiagrass at Different Nitrogen Levels and Clipping Frequencies

Clipping Frequency	lbs. N/A			
	0	50	100	200
wk.	Tons Drv Forage/A			
1	.48	.79	1.01	1.75
2	.61	.97	1.28	2.13
3	.67	1.04	1.54	2.76
4	.66	1.08	1.56	2.80
6	.70	1.23	1.79	3.21
<b>Avg.</b>	<b>.62</b>	<b>1.02</b>	<b>1.43</b>	<b>2.53</b>

#### Average Forage Production. of Pensacola Bahiagrass at Various Heights As Affected by N Rate

N Lbs/A	% Forage at various heights of cut (in.)					
	0-1	1-2	2-3	3-4	4-5	5+
0	42.7	18.0	11.9	9.8	8.1	9.4
75	44.8	18.2	10.6	8.5	7.6	10.3
150	38.6	17.2	12.2	8.9	8.4	14.7
300	39.7	16.3	9.4	9.1	9.1	16.3

#### Influence of N Rate on Yield of Pensacola Bahiagrass

Clipping Date	Total lbs. N/A			
	0	75	150	300
lbs. Forage/A				
June 1	154	1097	1471	1731
July 1	184	995	1435	1921
August 1	311	941	1245	1573
Sept. 1	388	750	774	967
Oct. 1	141	305	303	373
<b>Total</b>	<b>1178</b>	<b>4093</b>	<b>5229</b>	<b>6565</b>

Nitrogen applied in 1 application in late March.

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