

2018 Georgia Grazing School: Review of Bahiagrass and Bermudagrass Varieties

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**Bahiagrass and Bermudagrass
Species and Variety Selections**

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GRASS

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Bahiagrass and Bermudagrass

- Warm Season Perennial Forages
 - Grow Late Spring, Summer and Early Fall
 - Dormant in Winter but Returns in Late Spring
- Produce High Forage Yields
 - Generally Lower Quality than Cool Season Forages

Bahiagrass or Bermudagrass?

IT DEPENDS

Location Soil Fertility Management

Bermudagrass

Best in Coastal Plains, Cold Hardy Varieties Work Well in Piedmont Region

Less Tolerant of Poor Soil Fertility

Extremely Drought Tolerant

Less Tolerant to Poorly Drained Soil

Higher Management Requirements

Bahiagrass

Best in Coastal Plains Region

More Tolerant of Poor Soil Fertility

Average Drought Tolerance

More Tolerant to Poorly Drained Soil

Lower Management Requirements

Bermudagrass

Advantages

- Higher Yield

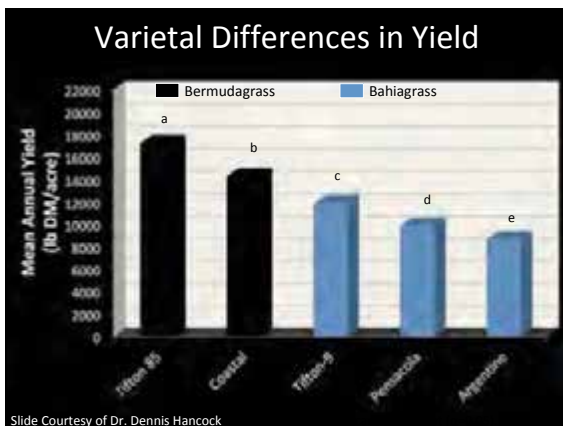
Challenges

Bahiagrass

Advantages

Challenges

- Lower Yield



Bermudagrass

Advantages

- Higher Yield
- Higher Animal Performance

Challenges

Bahiagrass

Advantages

- Longer Growing Season

Challenges

- Lower Yield
- Lower Animal Performance

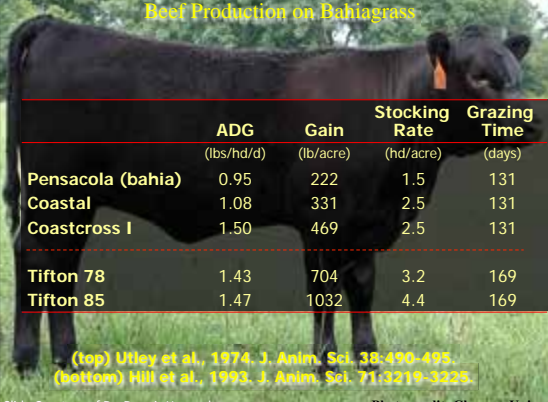
Photo Credit: Dennis Hancock



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Beef Production on Bahiagrass



	ADG (lbs/hd/d)	Gain (lb/acre)	Stocking Rate (hd/acre)	Grazing Time (days)
Pensacola (bahia)	0.95	222	1.5	131
Coastal	1.08	331	2.5	131
Coastcross I	1.50	469	2.5	131
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Tifton 78	1.43	704	3.2	169
Tifton 85	1.47	1032	4.4	169

(top) Utley et al., 1974. J. Anim. Sci. 38:490-495.
(bottom) Hill et al., 1993. J. Anim. Sci. 77:3219-3225.

Slide Courtesy of Dr. Dennis Hancock Photo credit: Clemson Univ.


Bermudagrass

Advantages

- Higher Yield
- Higher Animal Performance

Challenges

- Requires More Fertilizer



Bahiagrass

Advantages

- Longer Growing Season
- Lower Fertilizer Requirements

Challenges

- Lower Yield
- Lower Animal Performance


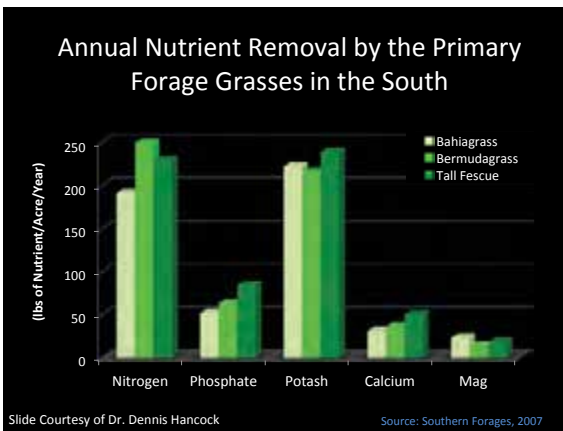


Photo Credit: Dennis Hancock



The Management and Use of Bahiagrass

Species	Yield		Annual/Other Stocking	Stocking Rate	Quality	Range Capacity	Average Dry Matter	Protein Content
	Yield	Yield						
Bahiagrass	75-175	30-40	0.5-0.5	0.15-0.2	80-90	75-100	0.75-1.25	17-20
Bermudagrass	150-225	30-40	0.5-0.5	0.15-0.2	80-90	80-100	1.00-1.50	15-18
Tall Fescue	50-100	30-40	0.5-0.5	0.15-0.2	80-90	80-100	0.50-0.75	13-15

1) Sources: nutrient levels of grasses from an analysis of the soil test.
2) The range quality values here are a maximum based on NDF and digestibility research from published literature (NDF = Neutral Detergent Fiber).
3) All in Annual DM. The percent is based on 1,000 lbs.
4) All these values are recommended for the purpose of the Georgia Forage, recommendations for animal performance for that issue to 1995. Make sure you use the use of a government issued analysis of the soil test.


Bermudagrass

Advantages

- Higher Yield
- Higher Animal Performance
- Easily Over-seeded

Challenges

- Requires More Fertilizer
- More Expensive to Establish
- Susceptible to Pests



Bahiagrass

Advantages

- Longer Growing Season
- Lower Fertilizer Requirements
- Cheaper to Establish
- Resistant to Most Pests

Challenges

- Lower Yield
- Lower Animal Performance
- Very Cold Intolerant





Photo Credit: Dennis Hancock

Bermudagrass

- Common (seeded)
- Hybrids (sprigged)
 - Tifton (USDA-ARS & UGA)
- Varieties differ in quality
- Varieties differ in yield
- Vigor
- Coarseness & drying rate

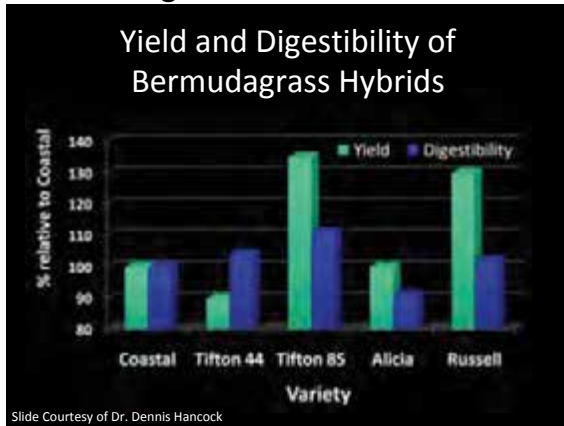


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Recommended Sprigged Varieties of Bermudagrass

Tifton 85

Advantages

- Larger Stems, Broader Leaves, Taller
- Highest Yields
- Highest Digestibility

Challenges

- Slow Drying Time – Up to a day longer
- Not as Winter Hardy

Photo Credit: Dennis Hancock

- Recommended South of Athens and I-20

Russell

Advantages

- VERY Winter Hardy
- Similar Yield to Tifton 85
- Quicker to Establish than Tifton 85

Challenges

- Less Drought Tolerant
- Lower Digestibility

- Recommended Throughout Georgia, Especially North Georgia where Tifton 85 Would not do well.

Tifton 44

Advantages

- VERY Winter Hardy
- Good Persistence
- Excellent Leaf Spot Resistance

Challenges

- Slow to Establish
- Lower Digestibility
- Poor Establishment from Tops
- Low Yield

- Recommended Throughout Georgia, but will Grow Better in North Georgia

Coastal

Advantages

- VERY Drought Tolerant
- Good Persistence
- Excellent Leaf Spot Resistance

Challenges

- Not as Cold Tolerant
- Lower Digestibility
- Low Yield Compared to Tifton 85

- Recommended Throughout Lower Piedmont and Coastal Plains Regions



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NOT Recommended in Georgia

- Alicia
 - Susceptible to leaf spot
 - Low digestibility
- Callie
 - Cold Intolerant
- Coastcross 1
 - Cold Intolerant
- Grazer
 - Poor yield

Seeded Varieties

- Compared to Hybrid Varieties
 - Low Yields
 - Low Quality
 - Low Persistence
- Difficult to Find Seed
 - Poor Seed Producers

- Cheyenne
- CD90160
- KF - 194

Recommended Varieties of Bahiagrass

Tifton-9

Advantages

- Good Digestibility
- High Yielding
- Good Seedling Vigor

Challenges

- Less Tolerant of Close Grazing
- Cold Intolerant

- Recommended in areas not suitable for Bermudagrass (Shade, Low Fertility)


TifQuick

Advantages

- Faster Establishment than Tifton-9
- Otherwise Same as Tifton-9

Challenges

- Less Tolerant of Close Grazing
- Cold Intolerant



- Recommended in areas not suitable for Bermudagrass (Shade, Low Fertility)


UF - Riata

Advantages

- More Cold Tolerant
- Longer Growing Season
- Better Disease Resistance

Challenges

- Not Suited for North Georgia



- Recommended in areas not suitable for Bermudagrass (Shade, Low Fertility)



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Bermudagrass Establishment


- ### Sprigging
- Dormant Sprigging
 - February – March
 - Quicker Coverage in Establishment Year
 - Spring Sprigging
 - May – June
 - Moist, Well Prepared Seedbed
 - 30 – 50 bushels per acre (Commercial Spriggers)
 - 50 – 75 bushels per acre (Broadcast Application)
 - Then lightly disc into the soil

- ### Fertilization
- Apply Lime, Phosphorus (P), and Potassium (K)
 - Prior to planting
 - 35 – 50 lbs N / acre
 - When Sprigs Begin to Grow
 - 50 – 75 lbs N / acre
 - Later, to allow for rapid ground coverage

Bahiagrass Establishment

- ### Basics of Bahiagrass
- Usually est. in early spring
 - To decrease weed competition
 - Fit with crop rotation
 - Limited grazing in est. year
 - Weak seedlings
 - Greatly improved with faster establishing varieties ('TifQuik') and irrigation
 - Sod-seeding limited by long growing season & competition
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Slide Courtesy of Dr. Dennis Hancock

- ### Establishing Bahiagrass
- #### Best management practices
- 1) Well-prepared seed bed – 8-10 lbs of seed/A
 - > Only to be used if soil erosion potential is minimal
 - > Early to late spring (prep earlier)
 - Firm soil with cultipacker and plant (D or B)
 - 2) No-till drill into killed residue – 10-12 lbs of seed/A
 - > Early to late spring
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Bahiagrass Fertilization

- Soil test and use recommended P & K fertility and lime application rates
- Apply 35-50 lbs of N/acre at emergence
- Another 50-75 lbs of N/acre in early to mid-summer (aids grow-in)
- Apply 100-200* lbs of N/acre in second year
 - * Use high rate only for very intensive grazing mgmt or hay production

Slide Courtesy of Dr. Dennis Hancock

www.georgiaforages.com

