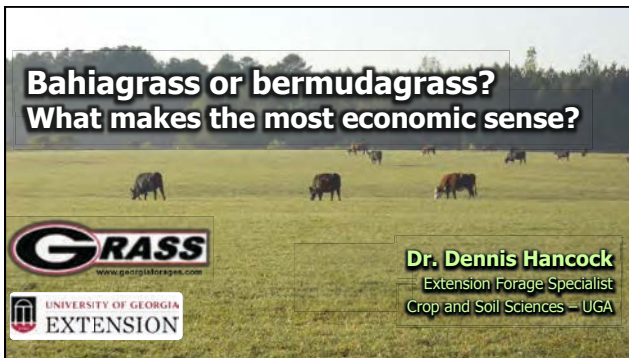


2018 Georgia Grazing School: Bahia grass or Bermudagrass? What Makes the Most Economic Sense?

Dr. Dennis Hancock
Prof. & Forage Ext. Specialist



Bermudagrass

- Common (seeded)
- Hybrids (sprigged)
 - Tifton (USDA-ARS & UGA)
- Typically very drought tolerant
- Aggressive and persistent
- Requires high fertility

Bermudagrass

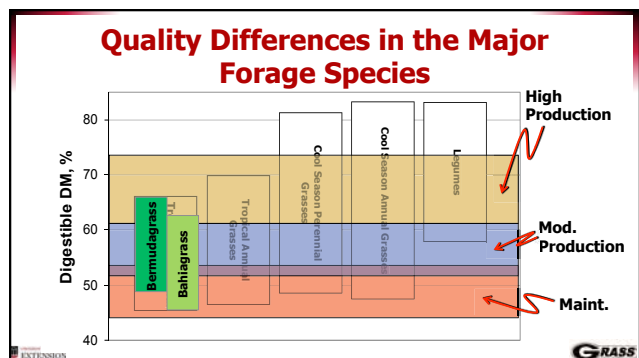
- Varieties differ in quality
- Vigor
- Coarseness & drying rate

Bermudagrass

- Sod forming – stolons and rhizomes
- High nutritive value if closely grazed +N
- Drought tolerant
- Few disease problems
 - (leaf spot/rust)
- Rapid curing for hay
 - T85, CCII slower than others
- Rapid regrowth
- Tolerant of frequent harvest/grazing
- More insect pressure
 - Fall armyworm, bermudagrass stem maggot, etc.

Bahia grass

- Typically very drought tolerant
- “Range” grass
- Tolerant of low fertility!
- Lower yield potential
- Typically lower digestible energy



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Bahia grass (*Paspalum notatum*)

- Tolerates broad pH range (5.5-6.5 best)
- Tolerates low fertility
- Tolerates close grazing
- Resistant to most diseases and has few pests
- Prefers sandy soils
- Thick vigorous rhizomes
- *Competitive*
- Propagated by seed, but dormancy and slow germination problems

EXTENSION

GRASS

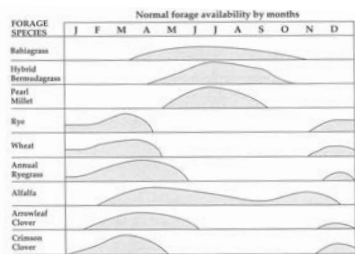
Basics of Bahia grass

- 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
 - Legs: white, crimson, arrowleaf
 - Grass: rye, wheat, ryegrass

EXTENSION

GRASS

Bahia grass (*Paspalum notatum*)



Coastal Plain

EXTENSION

GRASS

Primary Types

Diploid
(20 chromosomes)

Tetraploid
(40 chromosomes)

Pensacola

Argentine

EXTENSION

GRASS

Beef Production on Warm Season Perennial Grasses

| | 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 |
| 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. 71:3219-3225.

EXTENSION

GRASS

Which is More Economical?

- Differences in establishment costs
 - Seeding vs. sprigging
 - Risks of establishment
- Differences in annual pasture management costs
- Evaluate 6 scenarios:
 - Bahia – low inputs
 - Bahia – high inputs
 - Common – low inputs
 - Common – high inputs
 - Hybrid – low inputs
 - Hybrid – high inputs

EXTENSION

GRASS



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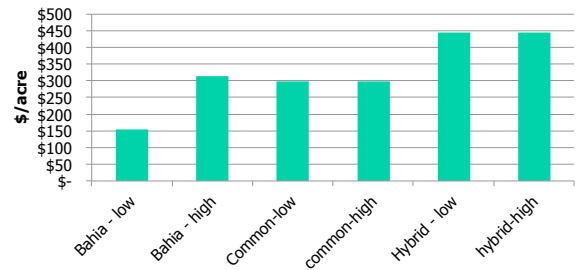
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Assumptions

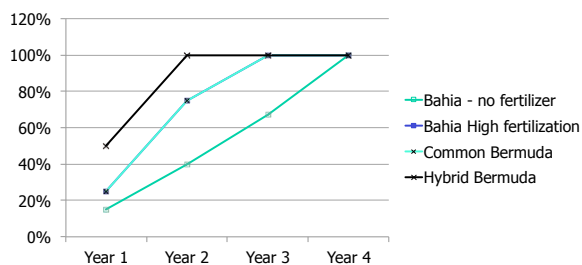
| | Bahia-No fertilizer | Bahia - High | Common Bermuda- Low | Common Bermuda- High | Hybrid Bermuda- Low | Hybrid Bermuda- High |
|------------------------|------------------------|-----------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Establishment Costs | \$154 | \$313 | \$298 | \$298 | \$473 | \$473 |
| Annual Maint. Costs | \$0 | \$154 | \$98 | \$173 | \$146 | \$221 |

See UGA forage extension pubs for specific fertilization and seeding recommendations
Prices for fertilizer : N= \$0.75, P=\$0.65, and K =\$0.60
Bahia seed = \$7.50/lb., Bermuda seed = \$10.00/lb., and Bermuda sprigs = \$125/acre.

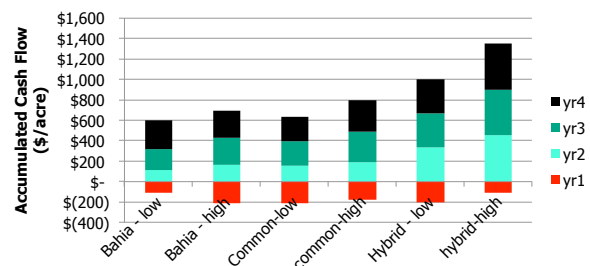
Establishment Costs



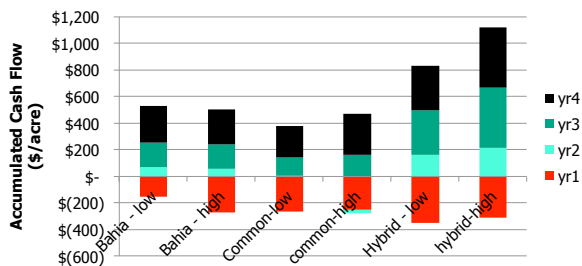
Percentage of Full Production by Year



Accumulated Cash Flow-Normal Years



Accumulated Cash Flow-Dry Years



Take Home Points

- There is a difference in being economical and cheap.
- Concerning forages it appears the best approach is to decide if you want to focus on increasing production or minimizing costs
 - Either 1) be prepared to spend a lot or 2) nothing. Don't be in-between!
- If land is your limiting factor, plant hybrid bermudagrass and fertilize heavily.
- If possible to rent additional bahiagrass pastures, more volume can be economical, as well.
- When it comes to bermudagrasses, either go with a good one and fertilize it well or don't plant them.



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