





Hybrids:

- Typically very drought tolerant
- Aggressive and persistent
- Requires high fertility
- Must be vegetatively established



Variety	Overall Rating	Yield	Digestibility ⁻	Winter Hardiness	Persistence	Leaf Spot Resistance
Alicia (Alecia)	***	100	Р	G	Р	Р
Coastal	***1	100	F	G	G	E
Coastcross II	****	135	E	G	ND	ND
Russell	*****	130	G	E	E	G
Tifton 44	****	90	G	E	G	E
Tifton 78	***	120	E	F	F	E
Tifton 85	*****	135	E	F	E	E

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	ADG	Gain	Stocking Rate	Grazin Time
	(lbs/hd/d)	(lb/acre)	(hd/acre)	(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







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Hayfield Aeration MSU 1994-95; Bermudagrass						
	Coas	stal,	Tifto	n 78,	Alio	cia,
	Brown Loa	m Branch	Coasta	al Plain	White	Sands
	1994	1995	1994	1995	1994	1995
		lb	s DM/a	cre		
Control						
Spring						
Summer						
Spring + Summer						
LSD _(0.05)						









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Calcium and Magnesium Are Good Flocculating Cations

lon		Relative Flocculating Power
Sodium	Na+	1.0
Potassium	K+	1.7
Magnesium	Mg ²⁺	27.0
Calcium	Ca ²⁺	43.0

Dr. Malcolm Sumner, UGA Professor Emeritus



GRAS











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Sprigging stick designed to push bermudagrass sprigs into the ground.

Two-row sprig planter developed at the CPES by UGA's James Stephens.



1: Choose an appropriate site for establishment.

- The soil must be well-drained.Choose site that is as weed-free as
- possible.
- Preferably, site is free of bermudagrass or bahiagrass.
- If either are present:
 - Grow a summer crop for 1-2 seasonsChemical fallow (non-selective
 - High rate of glyphosate in fall prior to spring establishment.







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2: Soil test and lime and fertilize accordingly.

 Ask for recommendations for "hybrid bermudagrass hayfield" even if for a pasture.

- Lime to a target of pH 6.5.
- Incorporate all recommended nutrients.
- Soil pH of 6.0-7.0 in winter before planting or not a viable field.
- Immediately prior to planting:
 - \bullet 50 lbs N, 15 lbs P_2O_5 , and 100 lbs K_2O/a • Incorporate (no deeper than 2 inches)



Conventional Seedbed Preparation Steps

- 1. Soil test and apply lime as needed 12-24 months prior to planting or sprigging.
- 2. Mow or tightly graze existing vegetation at least 8 wks prior to planting or sprigging.
- Wait ~1-2 wks to allow regrowth, then apply a non-selective herbicide (e.g., glyphosate @ 2 qts/ac) 3.



Conventional Seedbed Preparation Steps

- 4. Plow/disc/finish at least 4 wks prior to planting or sprigging
- Incorporate phosphorus, potassium, and additional lime (as recommended by soil test).
- 6. Allow time to settle or firm with cultipacker/roller.







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3: Use the false or stale seedbed preparation method

- In the 4-6 weeks between tillage and planting, weed seeds will germinate. False seedbed prep:
- Kill the weeds by lightly tilling the soil with a light drag or shallow disking, then immediately firm with a roller.
- Downside: moisture loss

Stale seedbed prep:

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• Kill the weeds with non-selective herbicide, wait 1-7 days and plant.





Minimum Till ("No-till") Options

- Acceptable for vegetative establishment (sprigging), but will leave the field very rough.
- Weed control?



4: Choose an establishment method and timing.

Three primary methods

- 1) Dormant sprigs 40-70 bu of LS/acre
 - Jan. to early Mar.
 - Less desirable for Tifton 85
 - Cover with at least 2" of soil to protect sprigs from freezing
 - 50%+ of dormant sprigs fail to emerge
 - Fall prior: do not allow the nursery area to be cut or grazed after Labor Day
 - Excessive winter rainfall limits dormant sprig survival
 - Estimate sprig survival by grow-out and adjust sprigging rate accordingly



4: Choose an establishment method and timing.

- Three primary methods
- 2) Spring sprigs 40-70 bu of LS/acre • Spring (after last freeze) to early Aug.
 - Early sprigging increases likelihood of establishment by end of the first year Avoid planting before early April

 - Sprigs should be vigorously growing before digging. Stand development is directly proportional to sprigging rate







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4: Choose an establishment method and timing.

Three primary methods

- 3) Tops/green stems 60-100 bu/A
 - June until early Aug. Tops need 6+ nodes on the stolons Fine-textured varieties: 10-12"
 - Coarse-textured varieties: 18-24"
 - Nursery area should receive: 100 lbs N, 25 lbs P_2O_{57} and 100 lbs of K_2O /acre in late March to produce tops by June Not recommended for Tifton 44

 - Usually not planted with sprig planter.











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5: Plant ONLY in moist soil.

 Sprigs will die if they drop below ~50-55% moisture or if they heat above 120°F for extended period.

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- If soil is dry, especially if hot, it will draw moisture out of the sprigs even after they have been planted.
- Ideal: planting on cool, cloudy day, preferably with a misty rain or imminent rainfall.
- Irrigation before and after can add flexibility, but do not over irrigate.
 ~1"/wk (0.5" x 2x/wk) for first 4 wks



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Heat Damage to Sprigs: Lessons from the Turfgrass World Temp. of sprigs inc. 1.0-2.5°F/hour of storage, depending on O₂ intrusion and density of pack. Sprigs can survive 110°F for extended period and 120°F for up to 6 hrs with minimal damage. If exposed to 130°F for 4 hrs, sprig survival is 30-60%. If 140°F for 1 hr, 100% sprig death.

No difference in sprig survival among turf varieties.

Source: Elsner and McWhorter, 1999. USGA Green Sec. Rec

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6: Plant pure sprigs or tops.

- Recommended to buy only certified planting material
 - GA Crop Improvement Assoc. certified
 (<u>www.georgiacrop.com</u>)
- If none available in your area, ask to see the nursery field
 - Common' contamination is common complaint.
 - Be proactive!

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7: Plant fresh sprigs or tops from a well-fertilized nursery.

Recommended nursery protocol:

If dormant sprigs to be harvested
 100 lbs N, 25 lbs P₂O₅, and 100 lbs K₂O/acre in Sept. prior to dig.

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If spring sprigs to be harvested
 100 lbs N, 25 lbs P₂O₅, and 100 lbs K₂O/acre at spring green up or within 6 weeks of digging or top harvest.









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