

2011 Southeast Hay Convention

Key Steps in Forage Establishment



Dr. Dennis Hancock
Extension Forage Specialist

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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.
3. Wait ~1-2 wks to allow regrowth, then apply a non-selective herbicide (e.g., glyphosate @ 2 qts/ac)

Photo credits: Univ. of Kentucky, GSCS Corp.

Conventional Seedbed Preparation Steps

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

Photo credits: Univ. of Kentucky



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"No-till"

- Best when terrain is rolling or soil is at risk of erosion
- Not feasible for vegetative establishment (sprigging)
- Primarily used for seeding or interseeding
- Requires excellent sod suppression



Photo credits: Univ. of Kentucky

Inspect, Adjust, and Calibrate



Drilling Depth



Photo credits: Univ. of Kentucky

- Watch cutting coulter depth in wet ground
- Coulters should cut about twice depth of desired seeding depth
- Seeding too deep is major cause of establishment failures!



Seeding Depth: ¼ to ½ inch

Photo credit: Univ. of Kentucky



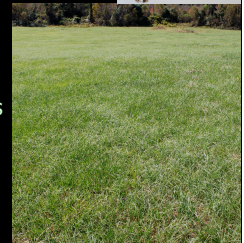
Minimum Till ("No-till")

- Acceptable for vegetative establishment (sprigging), at least in Piedmont.
- Weed control?



If Bermudagrass or Bahiagrass is Present...

- Use a smother crop for at least one year.
 - Pearl millet, sorghum x sudan
 - RR soybeans
- If replacing a bermudagrass with a different bermudagrass variety, consider two years.



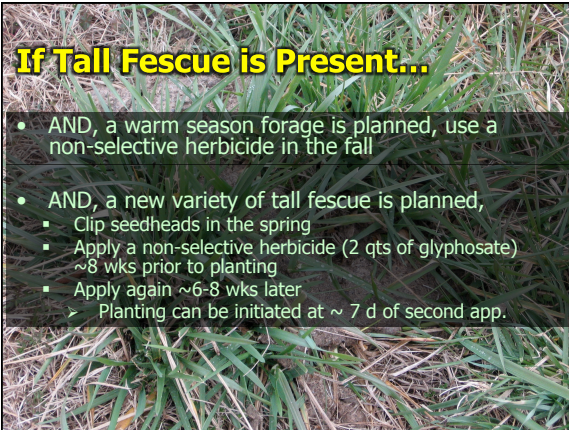
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If Tall Fescue is Present...

- AND, a warm season forage is planned, use a non-selective herbicide in the fall
- AND, a new variety of tall fescue is planned,
 - Clip seedheads in the spring
 - Apply a non-selective herbicide (2 qts of glyphosate) ~8 wks prior to planting
 - Apply again ~6-8 wks later
 - Planting can be initiated at ~ 7 d of second app.



Seeding Rate Considerations

- **Pure Stands vs. Mixtures**
 - Reduce seeding rates by 60-70% if mixed.
- **Planting Method**
 - Drill (low end of range)
 - Broadcast (high end of range)
- **Conditions**
 - Optimum (low end of range)
 - Poor (high end of range)



Photo credits: Univ. of Kentucky

Seed Quality Concerns

- Seed crop is often of relatively poor quality
 - Poor germination
 - Purity is low
- Pure Live Seed (PLS)
 - $(\text{Germ} + \text{Hard}) \times \text{Purity}$
 - Maybe < 80% PLS



Photo credits: Univ. of Kentucky

Vegetative Establishment of Bermudagrass



Establishing Hybrid Bermudagrass

Three primary methods

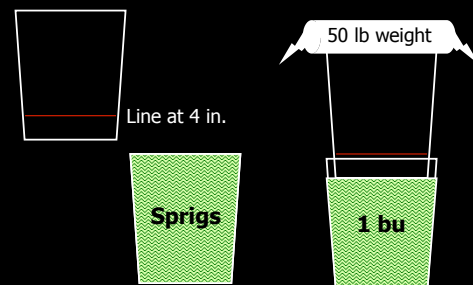
- 1) Dormant sprigs (rhizomes) - 40-50 bu/A
 - Dec. to early Mar.
- 2) Sprigs - 30-50 bu/A
 - spring (after last freeze) to early Aug.
- 3) Tops/green stems - 1500-2000 lbs of tops/A
 - Jun. - Aug.
 - Not recommended for Tifton 44

- Best if seedbed is well-prepared



How Much is a Bushel of Sprigs?

Using Two 5-gallon Buckets



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Establishing Other Forages

- Seeded bermudagrass establishment
 - Best if prepared seedbed
 - May 15 – June 30
- Perennial peanut establishment
 - January – early February
 - June – mid-July
- Summer annual establishment
 - April – July
 - Staggered plantings may be best to get good distribution of forage during the season.



Establishing Other Forages

- Tall Fescue establishment
 - Sept. 15 – Oct. 15
- Orchardgrass establishment
 - Sept. 15 – Oct. 15
- Alfalfa establishment
 - Sept. 15 – Nov. 15
- Winter annual establishment
 - Sept. 15* – Nov. 15



Insect Damage at Establishment



Photo from Southern Forages, 4th Edition.

Insect Control Tools

Sevin
Malathion
Lorsban 4E*
Warrior*

Mustang Max
Tracer
Furadan 4F*
Lannate*

Plus many others (for alfalfa)

Proper Cutting Management

* Alfalfa only.

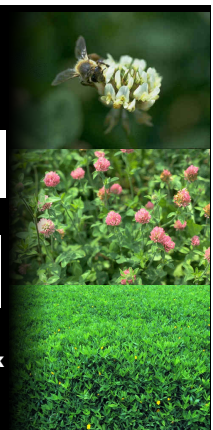


Insect Control Tools

CLOVER INSECT CONTROL
 (Other than alfalfa, including arrowleaf, crimson, red, white, and other clovers)
 Will Hudson, Extension Entomologist and David Buntin, Research Entomologist

ALFALFA INSECT CONTROL
 David Buntin, Research/Extension Entomologist

Georgia Pest Management Handbook
<http://www.ent.uga.edu/pmh/>



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