Southern Forages: Yield, distribution, and quality.

Nick Hill, Crop and Soil Sciences, UGA, Athens

Forage systems are a strength in livestock operations.

Or are they?

1) 50-100 acres per animal unit
2) 30 acres per animal unit
3) 15 acres per animal unit
4) 2-3 acres per animal unit
5) 0.5 acre per animal unit

Georgia Western US

MAKING HAY IS A LOSING PROPOSITION !!!!

Dr. Nick Hill
Professor, Crop & Soil Sciences

What makes a good forage system?
- Match herd needs with forage productivity
- Flexible for livestock enterprises
- Minimize periods of forage deficiencies (and therefore need for stored forages)
- Efficient economically
- Environmentally sustainable
2013 Georgia Grazing School:
Southern Forages: Yield, distribution, and quality

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**How can I minimize the surplus/deficit periods?**

*Graph of yield distribution showing surplus and deficit periods.*

**Yield distribution of winter annuals when overseeded into bermudagrass**

*Graph showing yield distribution of various winter annuals.*

**Complementary effect of overseeding bermudagrass with Cereal rye**

*Graph showing forage production and need.*

**Yield distribution of 1 Acre of Tall Fescue with 1 Acre of Bermudagrass Overseeded with Cereal Rye**

*Graph showing yield distribution of tall fescue and bermudagrass.*

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Adding cereal rye to the system adds forage quality to the pasture resource

<table>
<thead>
<tr>
<th>Forage species</th>
<th>Metab. energy</th>
<th>Crude protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bermudagrass</td>
<td>0.91-1.03</td>
<td>11.0-14.2</td>
</tr>
<tr>
<td>Tall Fescue</td>
<td>0.90-1.08</td>
<td>11.0-19.6</td>
</tr>
<tr>
<td>Cereal rye</td>
<td>0.93-1.19</td>
<td>13.6-21.2</td>
</tr>
</tbody>
</table>

Typical Piedmont Georgia Pastures

- Species composition:  
  - KY-31 tall fescue  
  - Common bermudagrass  
  - Weeds
- Low pH
- Fertilizer applied at random (chicken litter)
- Years of neglect/mismanagement

Makes this grazing school an opportunity for all!