Managing Cool Season Forages In Late Winter

Common Questions

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Relative Growth Distribution of Cool-Season Forages

- Once daytime temp. below 60 or night time below freezing growth stops.
Rainfall for Okmulgee County
(1971–2000)

Fertilize warm season grass

Fertilize cool season grass

Fertilize Warm or cool season grass

Greatest drought risk

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec
OSU Rules of Thumb – Fertility

- 1 acre will produce 1 ton of forage per year without fertility
- It takes 60 lbs actual N to make 1 additional ton of cool season grass
  - N Rich Strip + Greenseeker!
- Aim for Valentine’s Day application (Feb 14)
- For most small grains, expect 2–4 tons of spring yield
  - 1 ton = 60 lbs N
  - 2 tons = 120 lbs N
  - 3 tons = 180 lbs N
What If Your Cool Season Pasture Will Be Limited?
Strip Grazing Improves Utilization of Cool Season Forages

83% Harvest Efficiency
Timed Limit Grazing
2 hrs every Mon, Wed & Fri
## Strip Grazing Small Grains

<table>
<thead>
<tr>
<th>2018–2019</th>
<th>1 Day Strip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perkins</td>
<td></td>
</tr>
<tr>
<td># Head</td>
<td>42</td>
</tr>
<tr>
<td>Acres</td>
<td>9.1</td>
</tr>
<tr>
<td>Crude Protein</td>
<td>21.7</td>
</tr>
<tr>
<td>Energy (TDN)</td>
<td>73.5</td>
</tr>
<tr>
<td>Avg Yield (lbs/A)</td>
<td>2208w + ~4000s = 6200</td>
</tr>
<tr>
<td>Grazing Days</td>
<td>17w (2 hr) + 17s = 25.5</td>
</tr>
<tr>
<td>Cow Days/A</td>
<td>39.2w + 78s = 117</td>
</tr>
<tr>
<td>$/C/D</td>
<td>$0.68</td>
</tr>
<tr>
<td>Harvest Efficiency</td>
<td>83%</td>
</tr>
<tr>
<td>Weight Change</td>
<td>+16 lbs</td>
</tr>
</tbody>
</table>
Grazing Strategy

- Leave at least 50% green canopy cover at onset of winter!
Strip Grazed Small Grains In Various Stages of Regrowth Following Grazing
What If Your Cool Season Pasture Is Nonexistent?
Following the second drought year of 2012, many were needing additional forage supplies to reduce hay feeding.

Most realized their predicament in Nov-Jan, too late for normal plantings.

Spring seeded small grains, ryegrass and legumes became a common question in County offices.
Spring Seeded Forage Options

Gage Milliman & Brian C. Pugh
Nowata Co. Oklahoma
2013
March 14th, 2013

Clean tilled seedbed

Drill seeded

- Annual Ryegrass @ 20 lbs/A
- Ruby Lee Wheat @ 60 lbs/A
- Okay Oats @ 60 lbs/A
- Dry Feed Oats @ 60 lbs/A
- Dry Feed Oats at 120 lbs/A

Fertilized with either 0 or 50 lbs N as urea

Samples were harvested from 3’ x 5’ area and weighed, subsamples dried for DM yield
March 14, 2013 planting
Tilled ground, drill seeded
0 or 50 lbs actual N as Urea @ planting (P&K adequate)
Harvested May 22, 2013
Significant growth following first of May!

Dry Matter Yield (lbs/A) of Spring Forages Planted March 14th – Harvested May 10th

Majority of growth occurred after the last week of April!
Spring Seeded Forages Summary

- Spring seeding varieties did not produce significant yield until after last of April. This indicates the contribution to reducing winter feeding costs in the current year is questionable.
Oats were the best option for DM yield
Annual ryegrass and wheat were the worst
Shows a great opportunity for “last minute” hay crop
Great for replenishing haystocks for NEXT YEAR!
Proper Planning!
Early September planting following Bermudagrass Lime, P & K to soil test rec. pre-plant
Half drilled on tilled ground, half no-till
100 lbs Wheat + 20 lbs Annual Ryegrass
46 lbs actual N as Urea @ planting
Sampled March 14th, 2013 – vegetative
Harvested May 10th, 2013 – headed (dough)

Dry Matter Yield Fall Wheat–Ryegrass on March 14th (lbs/A)

Sod Seeded, avg yield: CP = 16.7, TDN = 72.8
Clean tilled, avg yield: CP = 20.9, TDN = 71.3

Dry Matter Yield Fall Wheat–Ryegrass on May 10th (lbs/A)

Sod seeded, avg yield: CP = 8.8, TDN = 57.8
Clean tilled, avg yield: CP = 8.4, TDN = 57.0
Planting date effects on wheat forage and grain yield

Every day germination is delayed past September 1 results in 50 lbs/A less forage by winter!
Prior forage planning will ease drought effects!

OSU trials have shown the benefit of early seeding for fall forage production

Fall seeding beats spring seeding in OK!

Follow fertility recommendations for optimum yields and economic returns
QUESTIONS?
Small Grains
Planting Dates

Picture taken 11/30/99

First planting was clipped 10/27/99
removing 1,880 lb/a of forage
Returns above N cost ($/ac)

forage = $0.03

N = $0.30
Effect of in-furrow DAP on wheat forage yield

- Check: 300 lb/ac
- 30 lb/ac: 1,000 lb/ac
- 60 lb/ac: 1,500 lb/ac
- 90 lb/ac: 2,000 lb/ac

Wheat forage (lb/ac)
Effectively reducing winter feeding through grazing of small grain forages requires proper forage budgeting in conjunction with a fall-seeded stand.

Proper management is necessary for sod-seeded SG to ensure the greatest return in forage production.

Sod-seeding may still be best left to fall-seeded stands due to the limitations of spring seeding.