


 United States Department of Agriculture
 Natural Resources Conservation Service

Forages to Fill the Gap

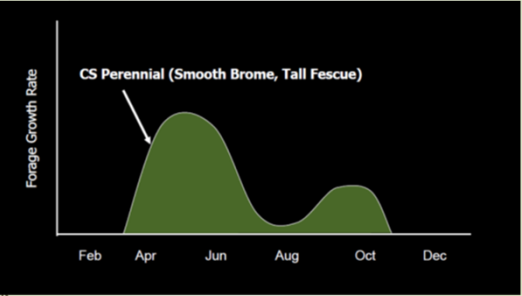
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Forages to Fill the Gap

	Pasture calendar						
	April	May	June	July	Aug.	Sept.	Oct.
Smooth brome	[Growth curve]						
Tall Fescue	[Growth curve]						
Orchardgrass	[Growth curve]						
Switchgrass	[Growth curve]						
Eastern gamagrass	[Growth curve]						
Big bluestem	[Growth curve]						
Indiangrass	[Growth curve]						

Forage production levels

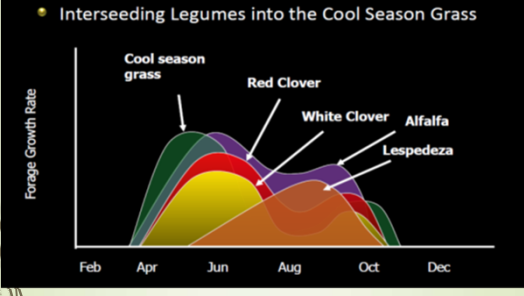
Forages to Fill the Gap



CS Perennial (Smooth Brome, Tall Fescue)

Forages to Fill the Gap

• Interseeding Legumes into the Cool Season Grass



Forages to Fill the Gap

- Steps to follow for Interseeding
 1. Soil Test (soil PH of at least 6.5 is recommended for grass, clovers, and birdsfoot trefoil)
 2. Remove the competitive nature of the grass
 - No nitrogen the previous fall or in spring before the legume interseeding
 - Graze closely (yes, overgraze)
 - Burn the cool season grass to weaken and allow for sunlight to help in seedling establishment.
 3. Seed in early spring. "Late Freeze" can happen but is less of a threat than seeding too late.
 4. Seeding rates and traits of legumes.
 - Red Clover
 - 6.0 to 8.0 lbs/acre
 - Easy to establish

Forages to Fill the Gap

- Steps to follow for Interseeding (continued...)
- 4. Seeding rates and traits of legumes (continued...)
 - White Clover
 - Persists longer than most legumes
 - Bloat can be issue if most of pasture is white clover
 - 1.5 - 3.0 lbs/acre
 - Alfalfa
 - Drought resistant and excellent quality
 - 8.0 - 15.0 lbs/acre
 - High forage production and animal performance
 - Annual Lespedeza
 - Wide range of soils that it can adapt to
 - Very palatable and non bloating
 - 20.0 to 25.0 lbs/acre

Forages to Fill the Gap

- Steps to follow for Interseeding (continued....)
 - 4. Seeding rates and traits of legumes (continued...)
 - Birdsfoot Trefoil
 - Hard to establish
 - Non bloating
 - 6.0 to 8.0 lbs/acre

Forages to Fill the Gap

Common Forage Base

Forages to Fill the Gap

Rotating to cropland – Warm Season Annual

Forages to Fill the Gap

- Warm Season Annuals/Cover Crops
 - Know your goals:
 - Forage Crop: Grazing the forage until almost nothing is left but keeping close eye on animal performance
 - Cover Crop: Grazing the forage for soil health. That means after the grazing event you are leaving a good amount of residue for nutrient cycling as well as protecting the soil.
 - There is no mixture of cover crop that is perfect to meet all of your objectives or the "do all" blend. Start with your main goal of the cover crop and proceed from there.

Forages to Fill the Gap

Fall Blend

- 1.0 lbs Purple Top Turnips
- 5.0 lbs Cowpeas
- 1.0 lbs Sunflower
- 2.5 lbs Spring Peas
- 1.0 lbs Hybrid Forage Collards
- 1.0 lbs Graza Fodder Radish
- 10 lbs Spring Oats
- 3.0 lbs Brutis Hybrid Forage Sorghum BMR Dwarf
- 2.0 lbs All Star Hybrid Pearl Millet

This blend produced 5,127 lbs of forage/acre. Growing days from date drilled to clipping consisted of 92 days. No additional fertilizer was applied. Drilled on 7/15 into wheat stubble. Twelve 1300 lb cows were grazed on 20 acres for 56 days on this blend. Cost of this blend was \$ 32.22/acre.

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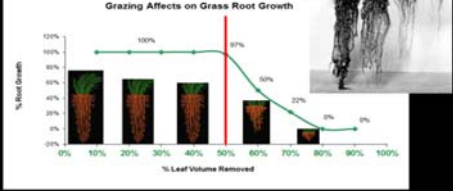
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Forages to Fill the Gap

Grass Root Growth

Grazing Affects on Grass Root Growth



% Leaf Volume Removed	% Root Growth
0%	100%
10%	100%
20%	100%
30%	100%
40%	100%
50%	87%
60%	50%
70%	22%
80%	8%
90%	2%
100%	0%

Take Half, Leave Half


50% removal = 12 days w/ no root growth
90% removal = 18 days w/ no root growth

Forages to Fill the Gap

Diversifying Smooth Brome

- 10 lbs cowpeas
- 5 lbs Sunn Hemp
- 5 lbs Buckwheat
- 3 lbs Sunflower

Planted July 9, 2016



Forages to Fill the Gap

Diversifying Smooth Brome

Photo August 6, 2016



Forages to Fill the Gap

Diversifying Smooth Brome

Photo August 27, 2016



Forages to Fill the Gap

Diversifying Smooth Brome


Photo August 27, 2016



Forages to Fill the Gap

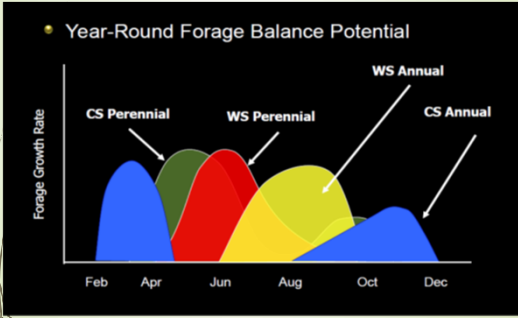
Diversifying Smooth Brome

Photo September 19, 2016



Forages to Fill the Gap

Year-Round Forage Balance Potential



Forages to Fill the Gap

- Examples of Cool Season Annuals
 - Annual Ryegrass
 - Cereal Ryegrass
 - Triticale
 - Wheat
 - Oats
 - Barley

Forages to Fill the Gap



Questions???

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