Opportunities Brought on by a Drought

• Thicken up a stand with desirable forages
• Include more legumes in pastures
• Convert about 10-25% of acres to a warm-season grass
• Develop a simple rotational grazing program
• Purchase (or keep) a reserve supply of feed when prices are favorable
• Plant an emergency crop in the fall
  - Turnips
  - Wheat, Triticale, Rye, Ryegrass
Turnips, Radishes, Swedes, Kale
Short-Term Drought Response

- Plant an emergency crop in the fall
  - Turnips
  - Wheat, Triticale, Rye, Ryegrass

- Plant an emergency crop in the spring
  - Spring Oats
  - Cereal Rye
Spring Oats

• Last-ditch attempt to get some spring forage out of a failed perennial field

• Spring oats are typically 10 days – 2 weeks later in maturity than winter wheat.

• Quality is comparable to wheat

• Tonnage is about 2/3 of wheat

• Seed 2.5-3 bu/ac for a solid stand
  ➢ Cost - $14-23/acre

• Drill February - early March

• Producers often have trouble getting adequate growth when no-tilled into an existing cool season sod
No-tilling a cereal grain crop into a good stand of fescue is challenging at best!
Long-Term Drought Response

- Overseed clover or lespedeza
- Thicken up the stand in the spring or next fall (cool season grasses)
- Later in season (May) plant annual sudan or millet, then address a permanent stand in the fall
- Convert to a warm season grass
- Insure fertility is up to par
- Controlled grazing
Clover

- Of 37 pasture systems compared, 7 of the 10 most profitable systems involved legumes. (Alburn Univ. Study)
- Cheaper than topdressing Nitrogen
- For each pound of N fertilizer, 3-5 pounds of lime is needed to offset the acidity created.

Goal → 25-30% legume component in pastures
Annual Lespedeza

- Tolerates low pH & drought
- Most growth after late June
- Must reseed itself
- Mixes well with cool season grasses
- Less N fixation than clovers
Spring Cool Season
Grass Establishment

- Spring is second-best time
  - 5-6 months behind fall seedings
  - Dry season ahead
  - Weed competition is great
- Drill February - early March
  - Avoid tillage
- Can sow with spring oats
Fall Cool Season Grass Establishment

- **Best time**
  - True beginning of the CSG growing season
  - Roots get well established before the dry summer
- **Drill late August – early September**
Fall Grass Options

- KY 31 Fescue
- Friendly Endophyte Fescue
- Orchardgrass
- Annual Ryegrass
Annual Ryegrass

- A good fit for thin fescue
- Rapid fall growth
- Retains green tissue nearly all winter
- Remains vegetative through May
- Reproduces by seed
Annual Ryegrass Cultivars

- **Diploid**
  - Most common
  - May be more winter-hardy than tetraploids
- **Tetraploid**
  - Wider leaves, more robust
- **Italian**
  - Requires chilling to seed
- **Westervold**
  - Does not require chilling to seed
Annual Ryegrass Cultivars

- Marshall (Westervold Diploid)
- DH3 (Italian Tetraploid)
- Passerel (Westervold Diploid)
- Abundant (Tetraploid)
- Tetrastar (Tetraploid)
Forage Establishment
Grass Establishment Techniques

Method 1: overgraze → fertilize without N → seed early → flash graze early grass growth

Method 2: retard or kill pasture growth with chemicals (Gramoxone or glyphosate) → fertilize without N → seed early
Controlling Competition

Grazing can be useful or detrimental
No-till – A Reliable Choice

- Able to keep existing sod
- Conserves moisture
- Sod competes against weeds
- Greater success than broadcasting
- Less cost and erosion than conventional tillage
- Don’t plant too deep
Many Seeds Planted Too Deep

- Most small seeded grasses and legumes should be planted at 1/8-1/4 inch below the soil surface.
- Depth control on many no-till drills is poor.
- Seeds planted too shallow have a better chance than those planted too deeply.
### Recommended Seeding Rates

<table>
<thead>
<tr>
<th>Forage</th>
<th>Renovation (lbs PLS / Ac)</th>
<th>Typical Cost / Acre For Interseeding ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interseeding into Grass Pastures</td>
<td>Solid Stand Rates No-till Drilled</td>
</tr>
<tr>
<td>Fescue / Orchardgrass</td>
<td>6-12</td>
<td>15</td>
</tr>
<tr>
<td>Ann. Ryegrass</td>
<td>10-15</td>
<td>25-30</td>
</tr>
<tr>
<td>Cereal Rye</td>
<td>30-60</td>
<td>110-140</td>
</tr>
<tr>
<td>Wheat</td>
<td>30-60</td>
<td>100-130</td>
</tr>
<tr>
<td>Turnips</td>
<td>2</td>
<td>2-4</td>
</tr>
</tbody>
</table>
Alternative Establishment Methods
General Weed Control
Spring/Summer

• 2,4-D
  - Ragweed, Thistles, Plaintain, Croton, Perilla Mint, Spiny Pigweed

• Grazon P+D/Hired Hand/Gunslinger
  - Ragweed, Thistles, Horsenettle, Knapweed, Poison Hemlock, Perilla Mint, Spiny Pigweed

• Remedy Ultra/Relegate/Clear Pasture
  - S. Lespedeza, Ironweed, Blackberries

• GrazonNext
  - Ragweed, Thistles, Horsenettle, Mullein, Dock, Chickory, Nightshade, Locust, Croton, Knapweed, Wild Carrot, Plaintain
Caution
Herbicides Used Before or After Establishment

• Before Establishment – Beware of pasture herbicide residual
  − Burndown herbicide options – Glyphosate, Gramoxone, 2,4-D
  − Residual of Grazon, Grazonnexxt, 2,4-D can kill new stands of grass and legumes

• After Establishment – Grasses should be well tillered and established before using common pasture herbicides
Questions?

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