Outline

• Site Assessment.
• Strategies for soil stabilization and seed stratification
• Maintenance during the establishment phase
Overview

• Plan your plant community around existing lay of the land.
• Basic agronomic fertility levels give you a place to start.
• Compaction is your enemy
• Weeds will come to visit
• Soil communities will rebuild over time
Wet most of the year
Water soaks in during rain
Water drains rapidly
Correct fertility if needed

• Use Build up rates from the soils lab
• Adjust P to 45- 50 lbs/Acre
• Adjust K to 260 – 300 lbs / Acre
• Adjust PH to 6 to 8 with agricultural lime or sulfer.
• If CEC is below 12 meq/100g you may have to add organic matter or grow a cover crop to disk in.
Compacted Sites

- Alleviate Compaction – Chisel Plow and Disk: April – May
- Spray Emerging Weeds: May
- Plant cover crop (Oats, annual rye, sudan): May
- Disk in cover crop: August
- Spray: September
- Plant winter wheat: September
- Plant: November - February
Strategy

- Reduce weed seed bank in soil
- Limit weed seed production
- Limit weed seed introduction
Annual Weeds

- Foxtail
- Common Ragweed
- Sweet Clover
Perennial Weeds

- Johnson Grass
- Canada Thistle
- Serecea lespedeza
Strategies for soil stabilization

- No-till through dead sod or nurse crop
- Nurse crop only
- Straw mulch with nurse crop
- Erosion control blanket
No-till through dead sod
Cover crop 1 bushel /acre
Winter wheat
Erosion blanket area subject to flowing water
Native Seeding

Seasonal Considerations

• ~November 15 through March 15 for mixed forbs and grasses
• March 15 to May 1 Grasses only.
  • Proper site prep + Correct fertility = Success
  • Match the seed mix to the site
  • Native Seed mixes are low lbs/Acre Calibrate Carefully

SEEDS (PLS) PER SQUARE FOOT
<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Seeds/Ounce</th>
<th>Ounces/Acre</th>
<th>Seeds/Sqft</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Andropogon gerardii</em></td>
<td>Big Bluestem</td>
<td>8,188</td>
<td>48.00</td>
<td>9.02</td>
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<tr>
<td><em>Bouteloua curtipendula</em></td>
<td>Side-Oats Gramma</td>
<td>9,375</td>
<td>32.00</td>
<td>6.89</td>
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<tr>
<td><em>Chasmanthium latifolium</em></td>
<td>River oats</td>
<td>3,969</td>
<td>8.00</td>
<td>0.73</td>
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<tr>
<td><em>Elymus canadensis</em></td>
<td>Canada Wild Rye</td>
<td>4,258</td>
<td>32.00</td>
<td>3.13</td>
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<tr>
<td><em>Elymus virginicus</em></td>
<td>Virginia wild rye</td>
<td>4,375</td>
<td>16.00</td>
<td>1.61</td>
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<tr>
<td><em>Hystrix patula</em></td>
<td>Bottlebrush grass</td>
<td>4,700</td>
<td>1.00</td>
<td>0.11</td>
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<tr>
<td><em>Schizachyrium scoparium</em></td>
<td>Little Bluestem</td>
<td>8,800</td>
<td>32.00</td>
<td>6.46</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>169.00</strong></td>
<td><strong>27.95</strong></td>
<td></td>
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</tr>
</tbody>
</table>
Construction Sites, Compaction, Rubble, Toil and Trouble

Set a realistic time frame
Damaged sites take 3 to 5 years to recover
Set a maintenance schedule
Overseeding and fertility adjustment
• Maintain plantings through the first two years of establishment at a minimum.

• High mow annual weeds
• Spot spray perennial weeds
• Maintain fertility levels
• Overseed thin spots
• Tallgrass Prairie Facts
  • Compiled by Minnesota DNR

1. Native tallgrass is the MOST ENDANGERED ecosystem
   • in North America – *Kansas University*

2. Native prairie root systems are the BEST natural soil
   • anchors on earth.

3. In one acre of established prairie there is 24,000
   • pounds of roots. – *Iowa State University*

4. One acre of prairie can ABSORB 9” of rainfall/hour
   • before runoff occurs. – *University of Northern Iowa*

5. One acre of established prairie will INTERCEPT as
   • much as 14,000 gallons of water during a one inch per hour rain
   • event. – *University of Nebraska, Lincoln*
GOOD JUDGEMENT is the result of experience,
EXPERIENCE is the result of BAD JUDGEMENT