Weed-Free Seed, Unicorns, and other Myths
We order our “Noxious: None” seed and we’re done, right?

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
<th>Lot#</th>
<th>% Purity</th>
<th>%Grm</th>
<th>%Dorm</th>
<th>PLS Lbs</th>
<th>Bulk Lbs</th>
<th>Date</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bouteloua curtipendula ‘Bull’ Side-oats</td>
<td>Grama NINER</td>
<td>15559</td>
<td>62.43</td>
<td>52.00</td>
<td>36.00</td>
<td>0.23</td>
<td>0.31</td>
<td>3/13</td>
<td>MN</td>
</tr>
<tr>
<td>Bromus inermis</td>
<td>Fringed Brome, Central CO</td>
<td>15674</td>
<td>95.31</td>
<td>85.00</td>
<td>36.00</td>
<td>3.61</td>
<td>4.28</td>
<td>9/13</td>
<td>WA</td>
</tr>
<tr>
<td>Elymus elymoides</td>
<td>Bottlebrush Squarretil TUSAS</td>
<td>15881</td>
<td>98.39</td>
<td>94.00</td>
<td>1.59</td>
<td>1.72</td>
<td>9/13</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>Elymus lanceolatus lanceolatus thickspike</td>
<td>Wheatgrass</td>
<td>15954</td>
<td>98.26</td>
<td>69.00</td>
<td>13.00</td>
<td>5.69</td>
<td>7.07</td>
<td>4/13</td>
<td>WA</td>
</tr>
<tr>
<td>Elymus trachycaulus</td>
<td>Slender Wheatgrass First Str</td>
<td>16012</td>
<td>97.32</td>
<td>96.00</td>
<td>9.10</td>
<td>4.84</td>
<td>5.18</td>
<td>10/13</td>
<td>WA</td>
</tr>
<tr>
<td>Festuca idahoensis</td>
<td>Idaho Fescue JOSEPH</td>
<td>15508</td>
<td>99.41</td>
<td>83.00</td>
<td>0.97</td>
<td>1.17</td>
<td>4/14</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>Koeleria macrantha</td>
<td>Junegrass, UP Sims Mesa</td>
<td>15879</td>
<td>96.35</td>
<td>93.00</td>
<td>0.06</td>
<td>0.08</td>
<td>8/13</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>Pascopyrum smithii</td>
<td>Western Wheatgrass ARIBA</td>
<td>16541</td>
<td>94.49</td>
<td>85.00</td>
<td>2.30</td>
<td>2.89</td>
<td>10/13</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>Sporobolus cryptandrus</td>
<td>Sand Dropseed</td>
<td>16518</td>
<td>99.19</td>
<td>97.00</td>
<td>0.05</td>
<td>0.05</td>
<td>4/13</td>
<td>CO</td>
<td></td>
</tr>
<tr>
<td>Stipa viridula</td>
<td>Green Needlegrass LODORM</td>
<td>16045</td>
<td>99.55</td>
<td>95.00</td>
<td>1.93</td>
<td>2.04</td>
<td>8/13</td>
<td>CA</td>
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</tr>
<tr>
<td>Triticeae</td>
<td>Quickguard</td>
<td>15618</td>
<td>97.42</td>
<td>95.00</td>
<td>16.75</td>
<td>18.10</td>
<td>6/13</td>
<td>WA</td>
<td></td>
</tr>
</tbody>
</table>

Noxious: None

<table>
<thead>
<tr>
<th>Bulk lbs</th>
<th>Inert</th>
<th>Crop</th>
<th>Weed</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.85</td>
<td>2.71%</td>
<td>0.07%</td>
<td>0.00%</td>
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</tbody>
</table>
Real-life example: HWY Seeding

• A contractor performed roadside seeding along a Colorado State Highway on National Forest land for flood recovery soil stabilization

• Assurance that “certified weed free seed” was used

• 1171 bulk pounds of seed applied to 26 acres on 7-mile corridor

• Forest Service researched what was in seed and found........
About 24 aggressive weeds!

- One Colorado state listed noxious weed – our friend **cheatgrass**

- One lot of seed had 731 cheatgrass seeds per pound

- Total cheatgrass seed hitting the ground along a busy highway and streamside corridor = **56,455**
3 species are apparently new records for Colorado if they germinate and grow. 

One species of weedy grass is among the “top ten” most economically damaging weeds to crops and ag industry in Canada (Persian darnel, *Lolium persicum*) and only known from one county in Colorado.
Steve’s favorite new weed is Malta Starthistle

825 seeds hit the ground
Rejection rates

- Arapaho and Roosevelt National Forests 60-80%
- Adjacent Boulder County Open Space 20-25%
- Hampering ability to meet restoration goals or access suitable seed
Proceed with Caution:

Dangerous intersection ahead
Intersection of:

- Wildfire restoration
- Sagegrouse habitat and the gang
- Too many lists
- PM/Natl Seed Strategy
- Ecotypic NPM
- Pollinator plants
- Industry challenges
- Monarch habitat
- Suboptimal awareness of realistic tolerance requests and seed lab analysis
- Capacity & budget constraints
Concern

Need to get on top of this thing or it will get on top us

Need to be strategic between Industry and Users, and in all steps in chain of custody
And slow the elephant in the room before it charges faster!
The preceding presentation was delivered at the

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Washington, D.C. February 13-16, 2017

This and additional presentations available at [http://nativeseed.info](http://nativeseed.info)