Evaluation and Development of Native Seed Sources for West Texas

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Texas Native Seeds
What is Texas Native Seeds?

• Mission: *Develop Native Seeds Sources for Texas*
• Modeled after *South Texas Natives*
  • 25 native seed sources developed in the last 13 yrs for South Texas
  • >20K acres of seed annually
• What we do:
  • Collect seed of native plants from naturally occurring stands
  • Test, select, and increase high performing populations
  • Provide seed stock to commercial growers
  • Figure out the best ways to restore native plants
Sierra la Rana Plant Evaluation and Research Facility Development
Alpine, Texas

Starting from Scratch
Beginning Site Preparation
Site Ready to Plant
Second Year of Operations
Nine Species Under Evaluation
Railway Ranch Evaluation Site, Odessa, TX
Operational Spring 2015
Evaluations Across Sites

Uvalde, TX

Imperial, TX
Performance Between Populations

Tobosa Grass A

Tobosa Grass B

Little Barley

White Tridens
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Area of Adaptation</th>
<th>Evaluation Stage &amp; Expected Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas wintergrass</td>
<td><em>Nasella leucotricha</em></td>
<td>South Texas, Central Texas, Western Edwards Plateau</td>
<td>2nd Year Evaluation, 2016</td>
</tr>
<tr>
<td>Little barley</td>
<td><em>Hordeum pusillum</em></td>
<td>South Texas, Central Texas, Western Edwards Plateau</td>
<td>Seed Increase, Fall 2015</td>
</tr>
<tr>
<td>White tridens</td>
<td><em>Tridens albescens</em></td>
<td>South Texas, Central Texas, Western Edwards Plateau</td>
<td>Seed Increase, Fall 2015</td>
</tr>
<tr>
<td>Purple threeawn</td>
<td><em>Aristida purpurea</em></td>
<td>South Texas, Central Texas, Western Edwards Plateau</td>
<td>Seed Increase, Fall 2015</td>
</tr>
<tr>
<td>Silver bluestem</td>
<td><em>Bothriochloa laguroides</em></td>
<td>Central Texas, North Texas, Trans Pecos, Western Edwards Plateau, Southern Rolling Plains</td>
<td>2nd Year Evaluation, Spring 2015</td>
</tr>
<tr>
<td>Hall’s panicum</td>
<td><em>Panicum hallii</em> var. <em>hallii</em></td>
<td>Trans Pecos, Western Edwards Plateau, Southern Rolling Plains</td>
<td>2nd Year Evaluation, Spring 2015</td>
</tr>
</tbody>
</table>
Where native seed used in restoration *originated* from is very important.
Van Horn green sprangletop
The lone plant material source from the Trans Pecos
Seed Quality is Equally Important

High Quality Certified Seed Contamination Issues:

• Spotted knapweed in USFWS plantings
• KR Bluestem in “native prairie” harvested seed mixes
Pecos County, TX
Crane County, TX
Winkler County, TX
Drought 2011 – Live Lehmann, Dead Native Bunch Grasses
South Texas Natives  Live Oak County  Standard Industry Mix
Eagle Ford Shale Pipeline
Planted February 2012, Photo June 2012
Today
Partners & Collaborators