

South Texas Natives & Texas Native Seeds



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- Jeff Breeden
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The Agents of change





Our Mission

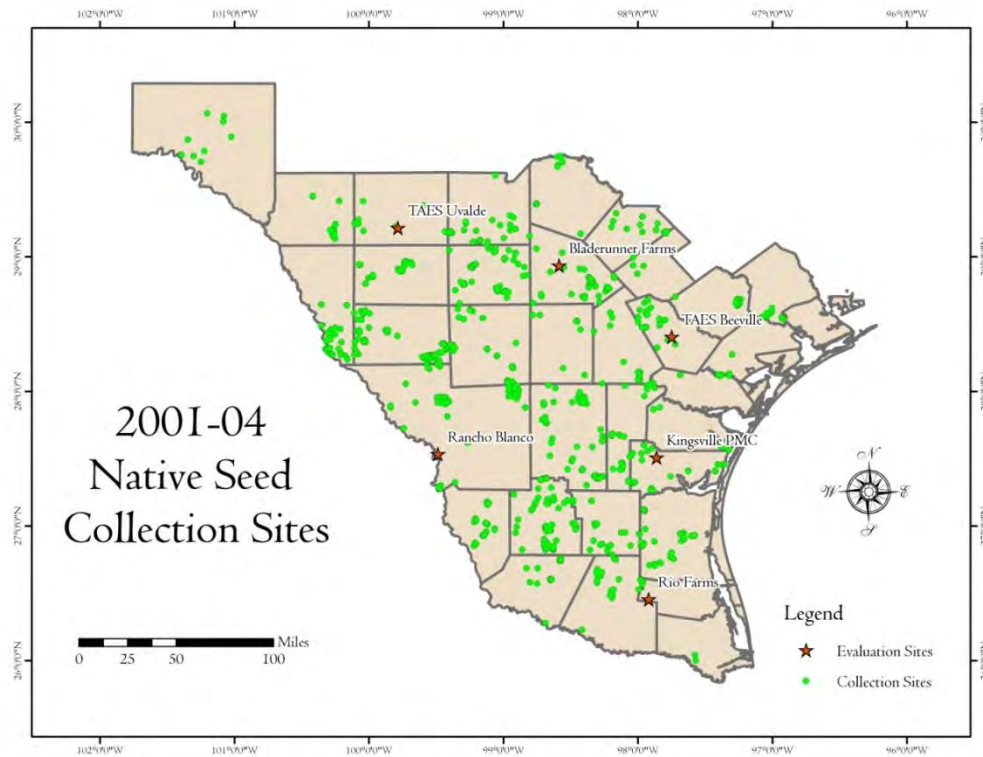
- Develop and promote native plants for restoration and reclamation in Texas
 1. Develop regionally adapted native seed sources
 2. Conduct research on native plant restoration and reclamation techniques
 3. Educate constituents and the general public about the uses of native plants and value of restoration and reclamation practices that use them.

How we develop a native seed source:
Example: Pink Pappusgrass (*Pappophorum bicolor*)

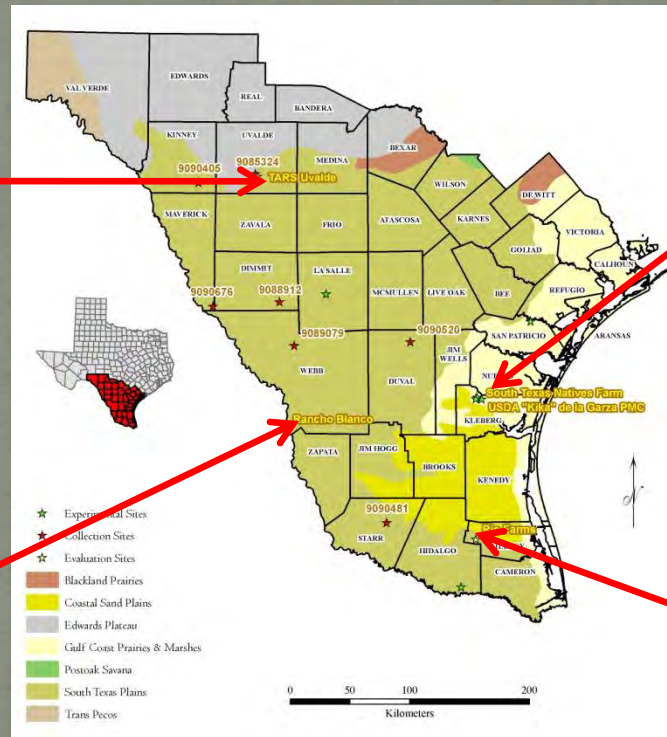


Collection

2001-04 Native Seed Collection Sites



Initial Evaluation



Advanced Evaluation

**Isolated seed increase and
production evaluations**



Commercial producer trials



Field plantings and monitoring



Seed Increase-7 populations



Release and Commercialization



Maverick

Germplasm Pink
Pappusgrass

Pappophorum bicolor
E. Fourn.



USDA NRCS
Natural Resources Conservation Service

AgriLIFE RESEARCH
Texas A&M University



<h3>La Salle</h3> <p>Germplasm Arizona Coldwater <i>Digitaria californica</i> (Berth.) Merr.</p>  	<h3>Atascosa</h3> <p>Germplasm Texas Grama <i>Bouteloua rigidula</i> Steud.</p>  	<h3>Chaparral</h3> <p>Germplasm Hairy Grama <i>Bouteloua hirsuta</i> Lag. var. <i>hirsuta</i></p>  	<h3>Dilley</h3> <p>Germplasm Slender Grama <i>Bouteloua sparsa</i> (Nutt.) Scribn. & Mer.</p>  	<h3>Divot</h3> <p>Tallow Weed Blend <i>Plantago hockiana</i> Fisch & Mey <i>Plantago rhodasperma</i> Don.</p>  
<h3>Welder Germplasm</h3> <p>Shortspike Windmillgrass <i>Chlorella</i> = <i>acutifolium</i> (Muhl.) Merr. (para tip) <i>intercalata</i> = <i>veritellana</i></p>  	<h3>Mariah Germplasm</h3> <p>Hooded Windmillgrass <i>Chlorella convallata</i> Bosc.</p>  	<h3>Catarina Blend</h3> <p>Bristlegrass <i>Bouteloua curtipendula</i> (Berth. & Merr.) K. Schum. and <i>Bouteloua curtipendula</i> (Lam.) Rosemer. & J.A. Schultze</p>  	<h3>Goliad Germplasm</h3> <p>Orange Zexmenia <i>Wedelia texana</i> (A. Gray) B.L. Turner</p>  	<h3>Zapata</h3> <p>Germplasm Rio Grande Clammyweed <i>Polanisia dodecandra</i> (L.) DC. spp. <i>rigidifolia</i></p>  



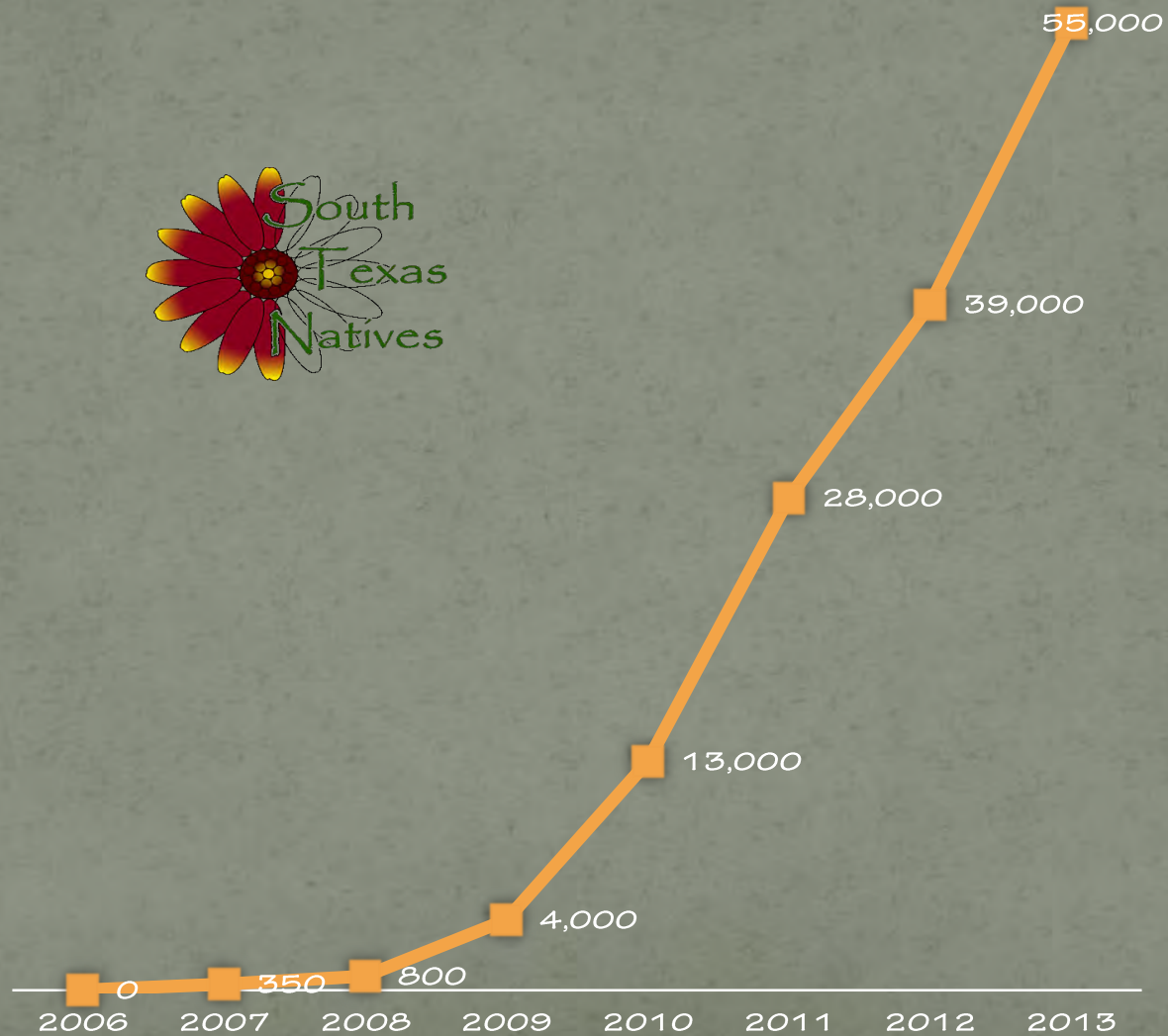




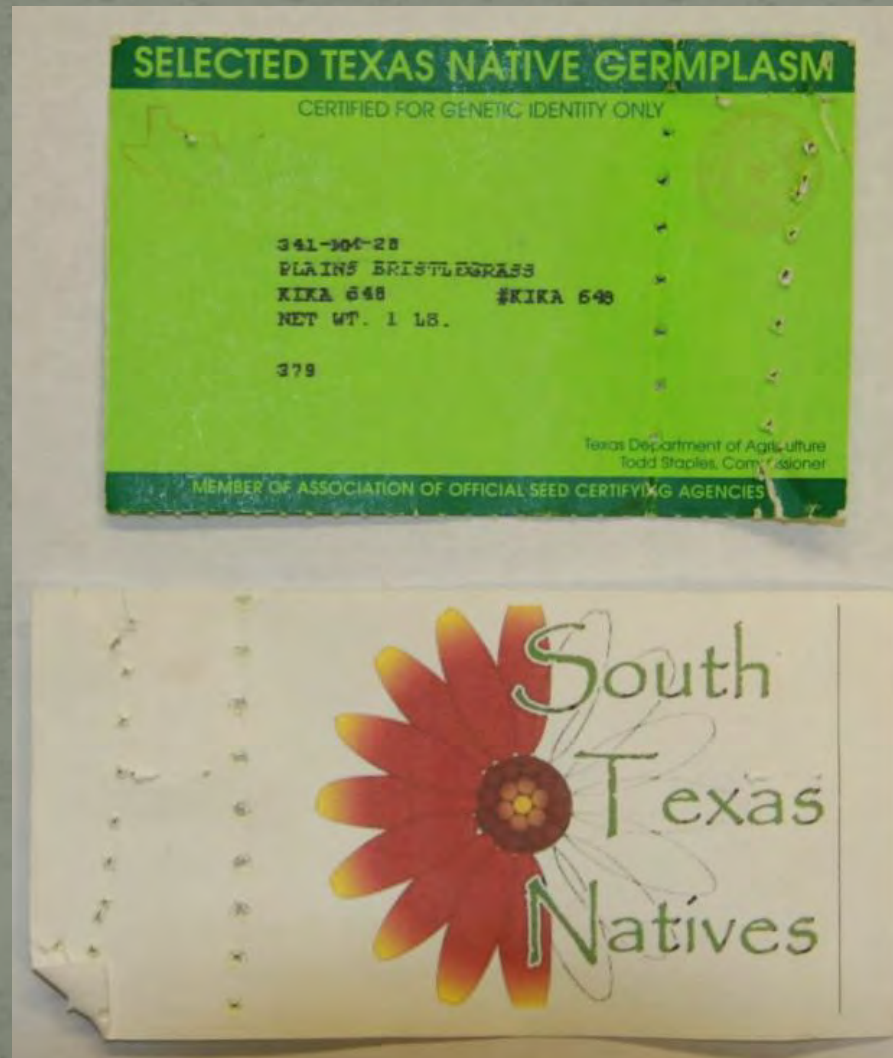




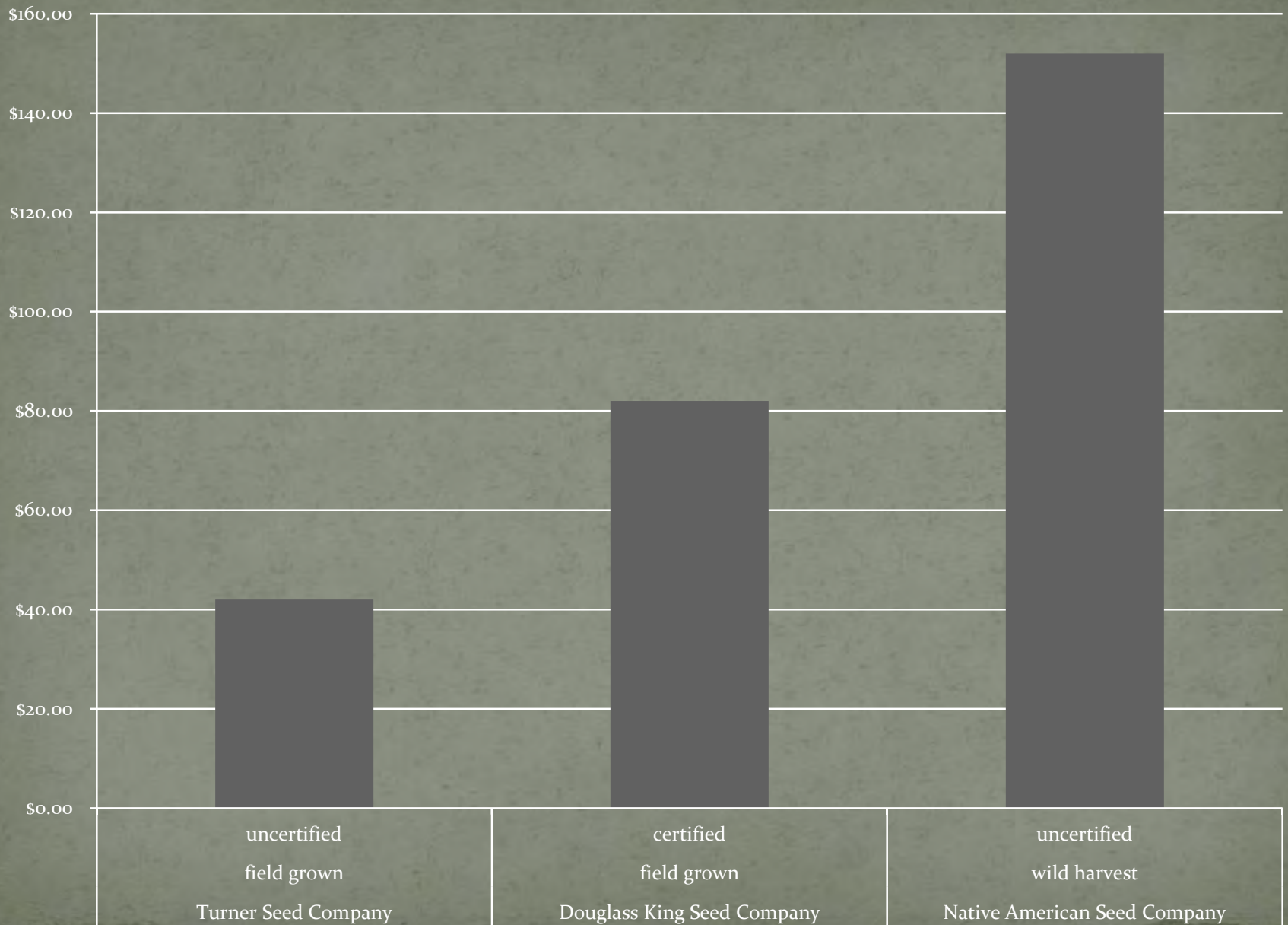
Commercial Production of STN Program Seed Releases
Lbs PLS produced



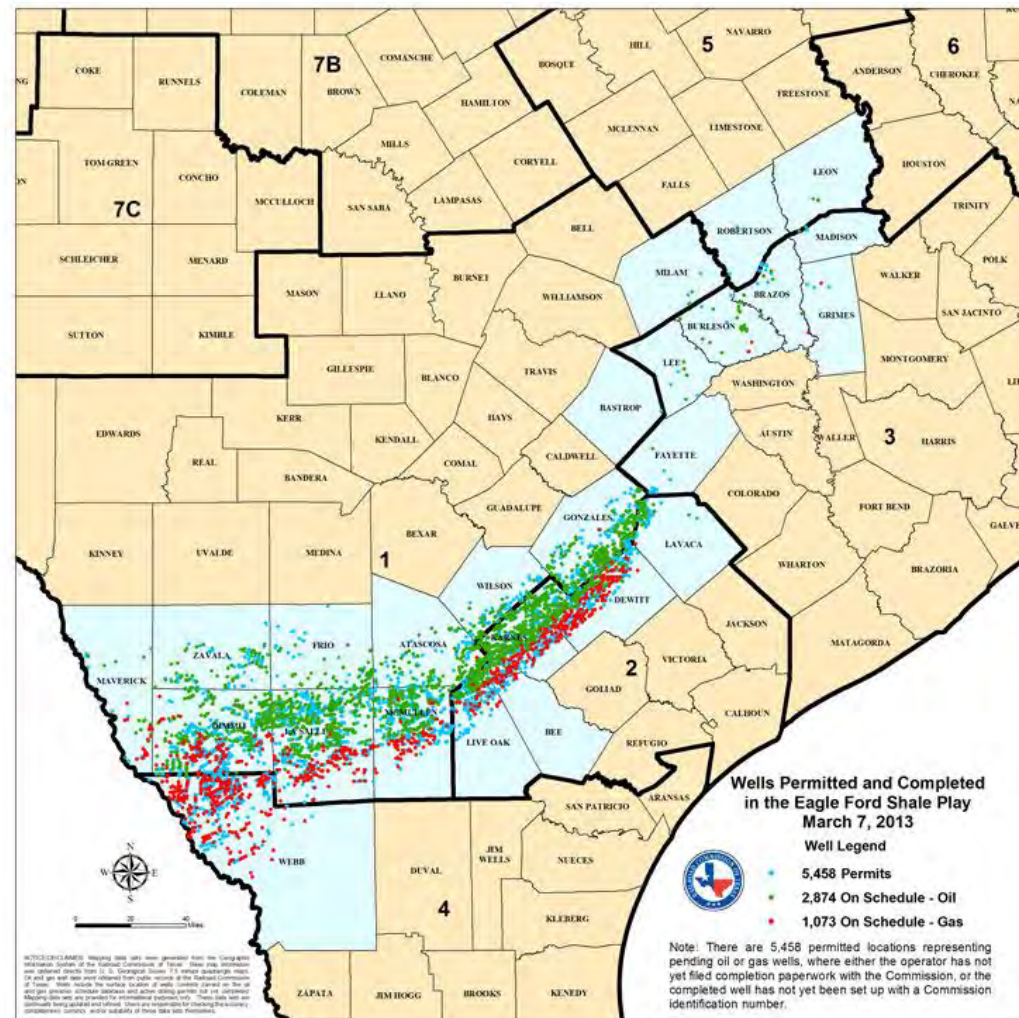
Native seed certification is important



Cost per acre



The Eagle Ford Shale



**Eagle Ford Shale Pipeline Right of Way
Installed Fall 2012, Seeded February 2012
Picture Taken September 2012**

Reseeded with *South Texas Natives* Seeds

Not Reseeded



Texas Department of Transportation

- 13 year partnership
- 2001- available native seeds worked poorly on South Texas roadsides
- 2011-new seeding specifications-native grasses now used by TxDOT were made available by *South Texas Natives*
- *Initiated Texas Native Seeds in 2010*



TxDOT Seeding Specifications-Corpus Christi District-Sandy soils

- 1995

- Green sprangletop
- Bermudagrass
- Buffelgrass
- K-R Bluestem

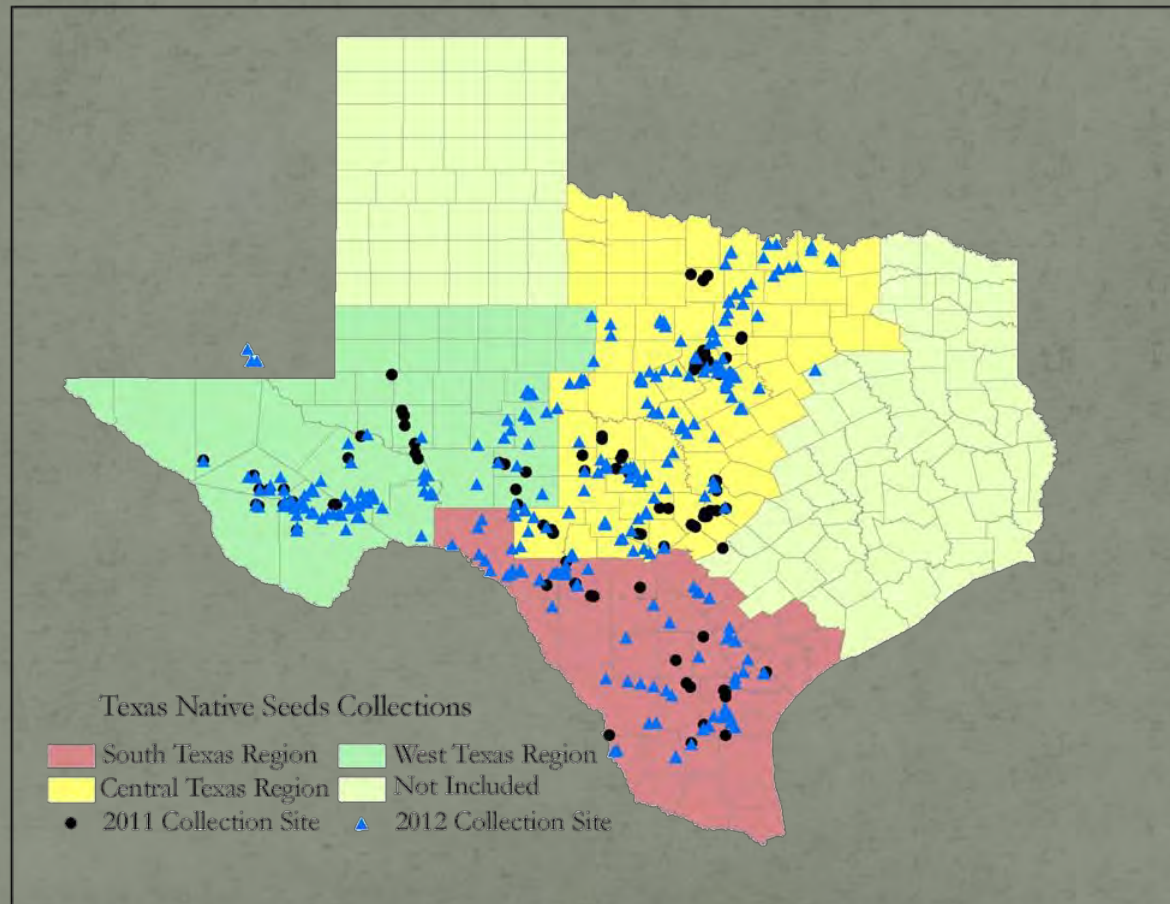
- 2011

- 'Van Horn' green sprangletop
- 'Haskell' sideoats grama
- Sand dropseed (common)
- Dilley Germplasm slender grama
- Chaparral Germplasm hairy grama
- Mariah Germplasm hooded windmillgrass
- Catarina Blend Bristlegrass
- La Salle Germplasm Arizona cottontop
- Maverick Germplasm pink pappusgrass
- Webb Germplasm whiplash pappusgrass
- Lavaca Germplasm Canada wildrye

Texas Native Seeds



Seed Collection Efforts 2011-2012



7 site evaluation of available sources

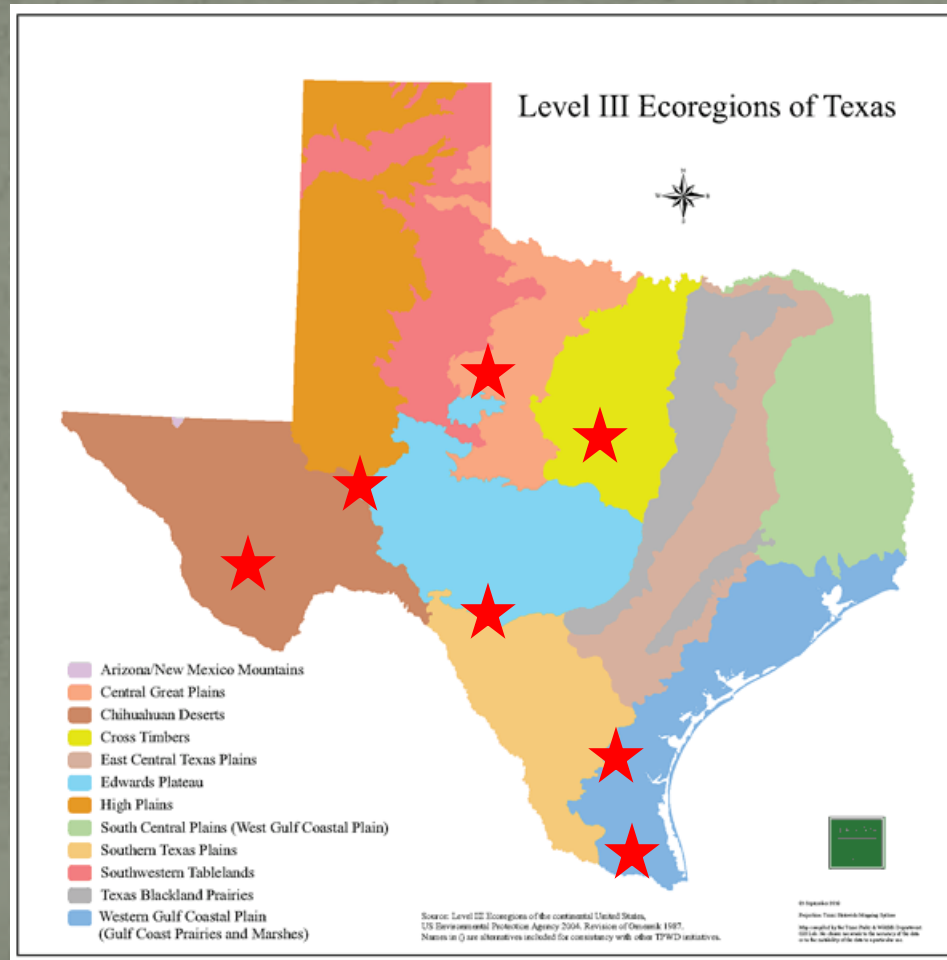






Figure 18. Mean (SE) number of surviving plants per 10-plant replication by July 2012 at the West Central Texas evaluation site. Line indicates 60% survival.

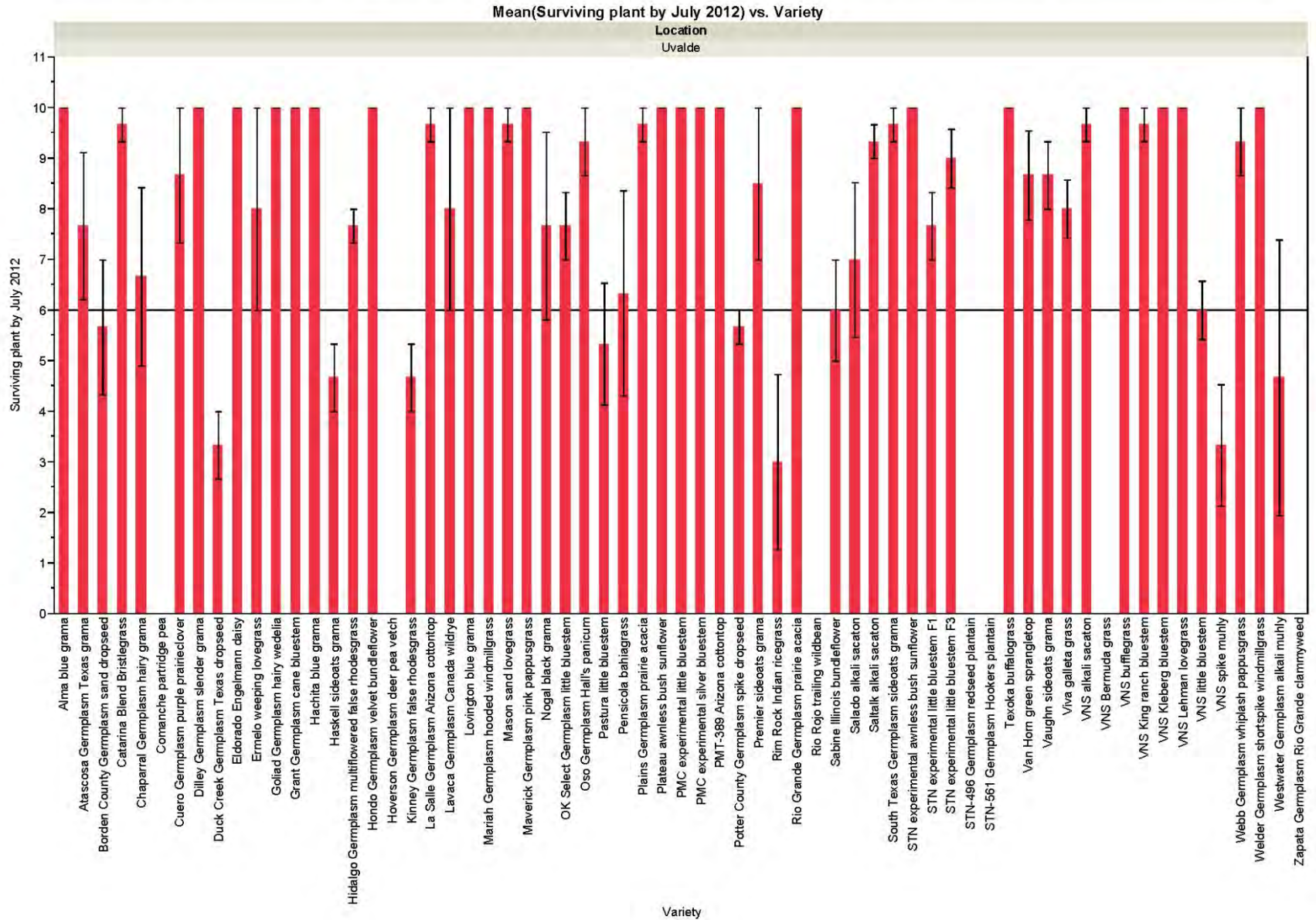


Figure 19. Mean (SE) height at the West Central Texas evaluation site in summer 2012. Line indicates ideal height of 50 cm for roadside vegetation.

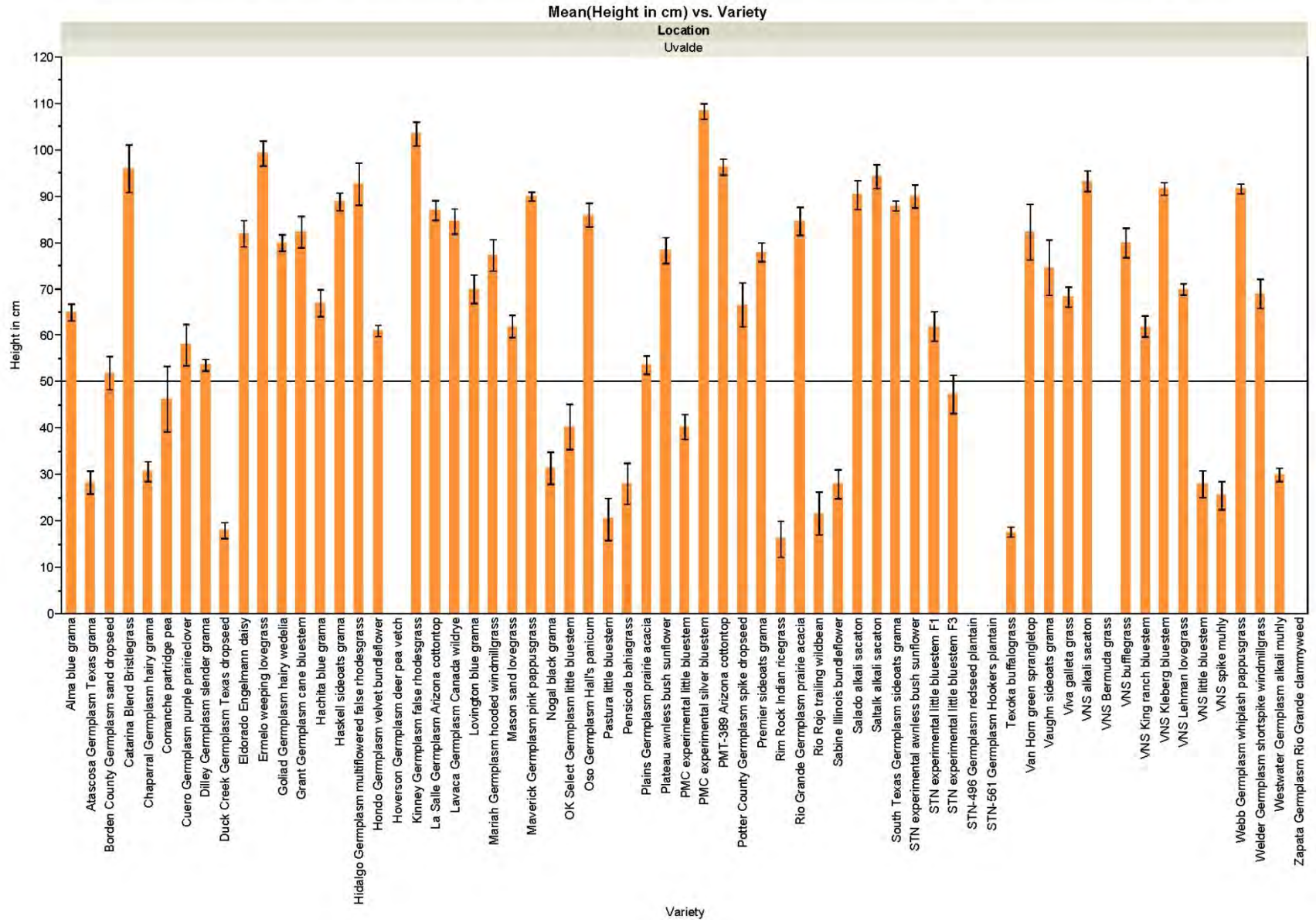


Figure 20. Mean (SE) canopy cover % at the West Central Texas evaluation site in summer 2012. Line indicates desired regional cover of 50%.

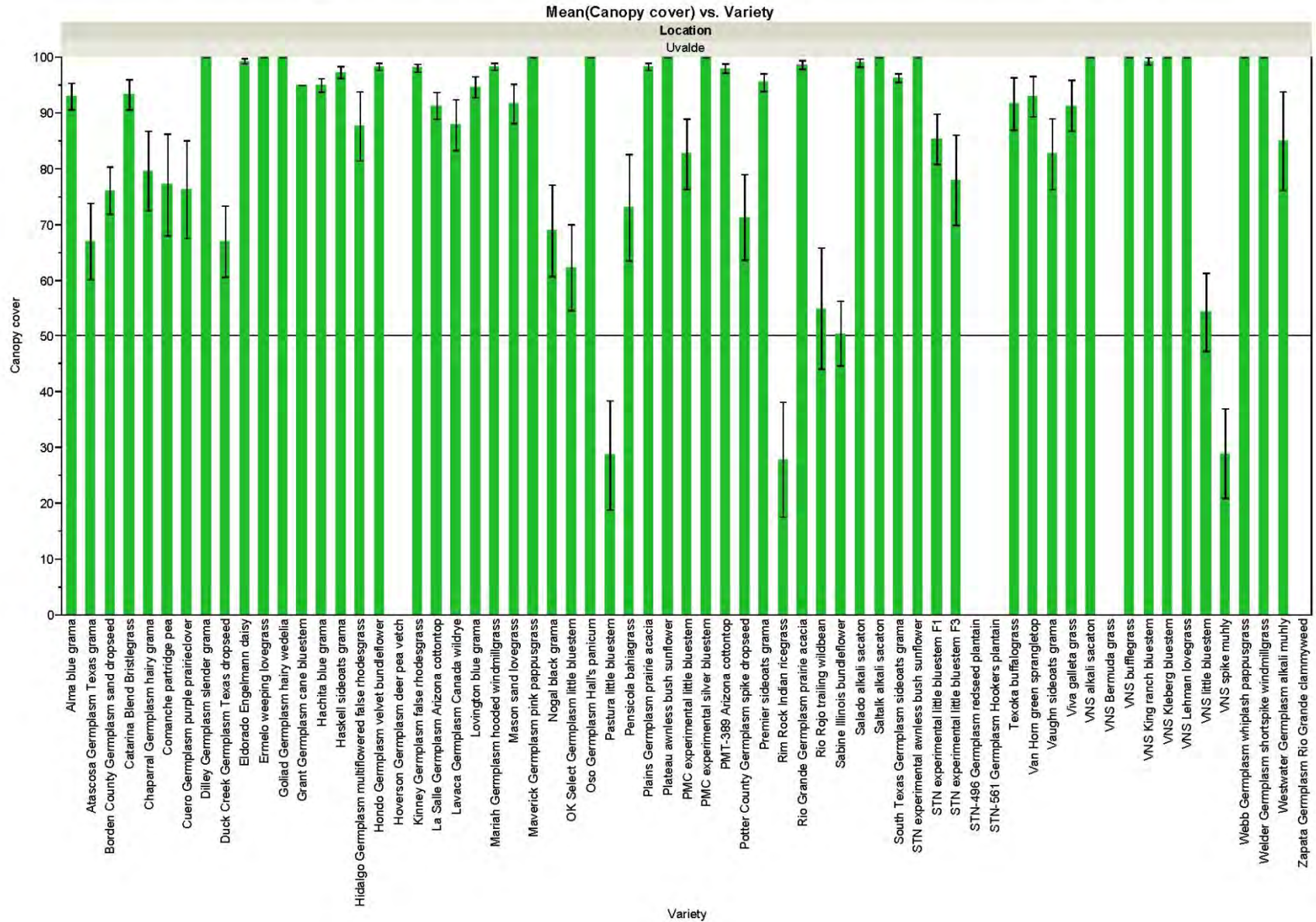
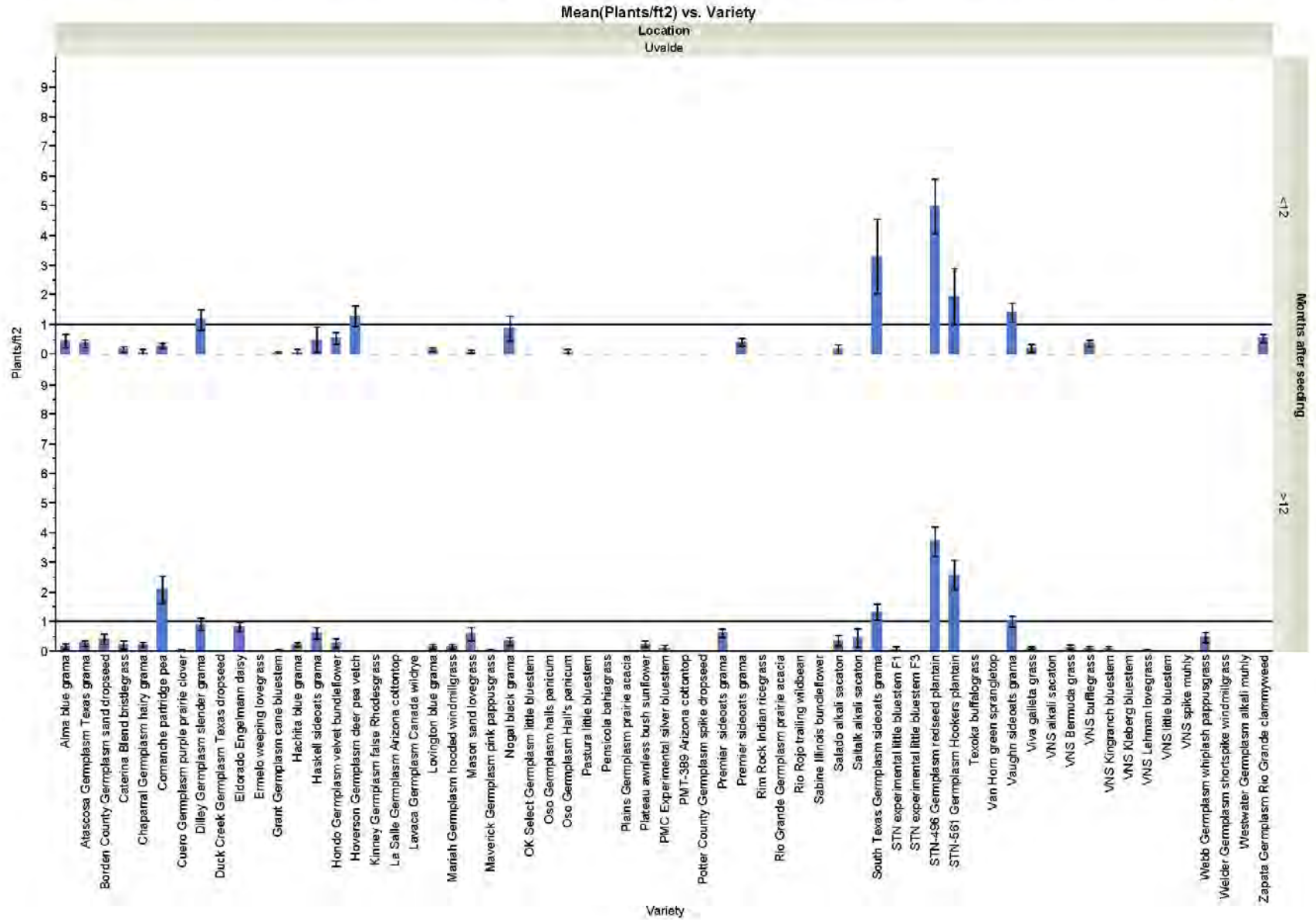


Figure 21. Mean seedling density <12 months and >12 months after seeding at the West Central Texas evaluation site. Lines indicate optimal emergence of 1 plant/ft².



Future plans

- Additional South Texas focused seed releases
 - Goal of 30 available native plant seed sources
- 20 seed releases each for Central and West Texas
 - Very few available sources are adapted to West Texas
 - Widespread native species are not available commercially in Central Texas
 - Little bluestem (no tested varieties)
 - Meadow dropseed
 - Early successional grasses (gramas, windmillgrasses, tridens spp.)
 - Lack of certified or tested seeds in most areas of the state
 - Poor supply of many sources
 - High price , performance, cleanliness concerns

Some Upcoming releases-STN



Little bluestem and Yellow Indiangrass

South Texas Origin



Longspike silver bluestem



Awnless bushsunflower



Central Texas priorities



West Texas priorities



In-progress evaluations-potential releases by late 2014: reclamation grasses



South Texas Natives



An initiative to develop and promote native plants for restoration and reclamation of habitats on private and public lands.



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FEATURED NEWS

Native Plants - The Foundation for Good Wildlife Habitat



By Colleen Schreiber - SAN ANTONIO - What constitutes good wildlife habitat? In two words - native plants. At least, according to Forrest Smith, director of South Texas Natives, that's where it all begins.

[\[more\]](#)

South Texas Natives Holds Native Seeding Training Session



South Texas Natives in collaboration with the Natural Resource Conservation Service and the Grazing Lands Conservation Initiative hosted a native seeding training session on July 27th 2011 at the Tio and Janell Kleberg...

[\[more\]](#)

South Texas Native Plant Model to Expand to Other Eco-Regions



By Colleen Schreiber - KINGSVILLE - A native plant restoration revolution is underway in South Texas, and now the effort is expanding to the north and to the west.



Plant Profile

Deer Pea Vetch

Deer Pea Vetch is a low-growing annual forb found frequent on a variety of soils in the Rio Grande Plains and Coastal Prairies. The leaves and seeds are consumed by white-tailed deer, cattle, bobwhite quail, and Rio Grande turkeys.



E-Newsletter



